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Millennials Acceptance of Insurance Telematics: An Integrative Empirical Study

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ABSTRACT
Insurance telematics is a recent technology-enabled service innovation advanced by insurance companies and adopted by millions of drivers worldwide. This research study explores the insurance telematics technology acceptance and use among the new Millennials generation, which represents both a challenge and an opportunity for insurers. Drawing on the Technology Acceptance Model (TAM) and the Theory of Planned Behaviour (TPB), the study uses data from 138 Millennials in the USA to delve into their perceived attitudinal behavior and intention to use insurance telematics. The findings provide empirical confirmation of the integrative and predictive power of the proposed combined theoretical framework (TAM-TPB) to explain insurance telematics adoption and use. The results also suggest a sophistication-level shift in Millennials preferences from functionality evaluation to applicability value sought through the adoption and use. And the findings ascertain the role of perceived enjoyment, trust, and social media as critical factors influencing Millennials attitudinal behavior and intention to use insurance telematics. Considering these results, the authors further discuss implications for scholars and practitioners, and suggest future research directions.

KEYWORDS
Insurance Telematics, Millennials, Technology Acceptance, Social Influence, Trust

INTRODUCTION

Insurance telematics is a new internet of things (IoT) technology that is experiencing dramatic market growth. The telematics-based insurance market size crossed USD 25 billion in 2018 and is predicted to grow at around 21% CAGR (Compound Annual Growth Rate) between 2019 and 2026 (Global Market Insights, 2019). This technology enables insurance companies to monitor the driving behavior of their clients and charge premiums accordingly. The telematics can be operated within an app, embedded in the car itself, or plugged into the On-Board Diagnostics (OBD) port. With the explosion of mobile telephony platforms, nearly 100 million drivers are reportedly expected to use this technology in the coming decade (Singh, 2017), and insurance companies could benefit from this trend as well.

Telematics has remodeled the relationship between car insurance companies and drivers. Traditionally, auto insurers rely on historical data for their assessments. They collect drivers' records, such as demographics (age, gender, and marital status) and credit score; driving record, like experience, expected mileage, and earlier claims; and vehicle-related information, such as the model,

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year, and parking location. With this recent business model, insurance companies uninterruptedly collect a large amount of data from motorists. This allows them to measure new elements of driving behavior such as miles traveled during a trip, time of day, route, rapid acceleration, hard braking, and cornering. Since this technology monitors and evaluates drivers' performance, it influences their behavior on the road. If clients want larger discounts, they will need to achieve higher scores. Cohen (2018) suggests that with the help of quantitative data-driven tools, insurers can offer efficiently targeted policies to their clients, with a significant impact on their operational decisions such as service quality and pricing.

Insurance telematics has shown its social, environmental, and governmental benefits. First, it monitors driving safety. This feature is particularly helpful to young and inexperienced drivers because 16-19-year-old motorists have the highest rate of road accidents than any other group (Symons et al., 2019; Pérez-Marín et al., 2019). The technology also reduces car theft and fraud, improves claim response time, and contributes to lower harmful gas emissions. These benefits are appealing to both drivers and firms. For example, after the adoption of telematics, Unipol, one of Italy's largest auto insurers, reportedly increased its market share by 10% and its profitability by 12% (Vaia et al., 2012). Appendix A summarizes the telematics programs in use by insurance companies across the world.

Successful implementation of insurance telematics represents both a challenge and an opportunity for insurers. The technology requires not only a substantial investment but also a strong user acceptance, especially from younger generations. Insurance companies are facing the newly maturing group of millennial shoppers, who exhibit different perceptions and attitudes on digital services. Bolton et al. (2013) find that young people are prone to early and frequent exposure to technology such that while welcoming recent technologies, they tend to disregard many others. In doing so, they consider the monetary and non-monetary benefits and consider privacy concerns. Favorable user perception proves to be a vital source of demand and leads to economies of scale for firms.

Motivated by the challenges and opportunities provided by this newly emerging industry practice, the current research study explores the key success factors of the insurance telematics technology adoption and use by Millennials while trying to address the following research questions: (1) What factors affect Millennials decisions on the adoption and use of the insurance telematics technology? (2) Which of these factors contribute most to increase their adoption and use? Despite the upward trend of telematics-based coverage, these questions have received little attention in the literature (see Table 1).

The study develops a conceptual model of Millennials' acceptance of insurance telematics based on the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB). It differentiates itself from prior studies through its focus on the novel industry practice of insurance telematics and the Millennials' acceptance of this technology in the US markets. Another important point of contrast is represented by an integrated theoretical framework combining the two theories to increase the explanatory power of its proposed model. Additional theoretical contributions to the literature include: (1) it suggests an evolutionary shift in Millennials evaluation preferences from product *functionality* to *applicability sought*; (2) it signals the importance of two newly proposed constructs: perceived enjoyment and trust, as significant predictors of the adoption and use of insurance telematics by Millennials; (3) it provides confirmatory support on social media's role in shaping Millennials technology perceptions and evaluation criteria. The study also contributes to the newly emerging insurance telematics practice by providing a set of relevant suggestions and recommendations for practitioners.

LITERATURE REVIEW

Automotive telematics is described as the integration of telecommunications and informatics technologies applied to the transportation industry. It unifies elements of the internet, communications, GPS, safety monitoring, and in-car mobile computing (Chen and Chen, 2009). Insurance telematics is an application of automotive telematics to the assessment of driver's risk profiles and forms the basis of the emergent usage-based insurance (UBI) practice. Its rationale is that when premiums are tied to true risks, policyholders are motivated to adopt risk-minimizing behaviors that would translate into lower insurance costs and larger-scale societal benefits (e.g., fewer accidents).

The insurance telematics technology acceptance has experienced tremendous growth in recent years, as illustrated by a Center for Insurance Policy and Research (CIPR) survey, which found that telematics programs were available in 42 states as early as 2014. However, the extant literature notes several challenges to its wide-scale adoption, as reflected in a 2014 study by Deloitte that found that fewer than 50% of policyholders said they would not want their driving monitored regardless of any savings (Karapiperis et al., 2015). The most common challenges to insurance telematics adoption mentioned in the literature are: the use of insurance telematics for policy increases (Chen and Jiang, 2019; Vaia et al., 2012), data portability concerns (e.g., when consumers switch insurance companies), affordability (e.g., older cars enable higher risks, thus poorer people may have to pay higher premiums), data transparency to the policyholders (Karapiperis et al., 2015), and data privacy (Vaia et al., 2012; Iqbal and Lim, 2010; Duri et al., 2002).

The literature references various research models that attempt to explain the insurance telematics technology acceptance, adoption and use. Among them, the most cited are the Technology Acceptance Model (TAM) (Davis, 1989) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003) – as shown in Table 1.

While other theories such as the Theory of Reasoned Action and the Theory of Planned Behavior (TPB) have been proposed in the literature, TAM is more suitable for information technology usage due to its robustness in various applications and its relative parsimony when compared to similar frameworks (Chen et al., 2011). Indeed, according to a comparative study by Rahman et al. (2017) that assessed the utility of several research models (TAM, TPB, UTAUT) to explain the adoption of advanced driver assistance systems (ADAS), TAM was found to perform the best. Consistent with these studies' recommendations and drawing on TAM's advantages while considering the high degree of similarity (and therefore transferability) between ADAS and insurance telematics technologies, this research study adopts the TAM framework as its main theoretical foundation to investigate the insurance telematics technology acceptance and use. This is also consistent with other studies such as Chen and Chen (2009) use the TAM model to explain automotive telematics acceptance in Taiwan.

The existing literature also suggests that the individual's intention to use a system or technology may result not only from the direct interaction with (and the evaluation of) the system or technology, but can also be influenced by individual psychological attributes, as well as by the social environment in which the individual takes part. TPB posits that Subjective Norms (SN), and Perceived Behavioral Control (PBC) are two factors influencing behavioral attitudes leading to the intention to use a system or technology. Therefore, combined TAM-TPB (e.g., C-TAM-TPB) models have emerged in the literature (see Table 1), which could provide enhanced explanatory power to the intention to use information systems and technology, and therefore provide empirical support to the integration of the two theories into a single theoretical framework. Meta-analysis studies such as (Koul and Eydgahi, 2017) found that both TAM and TPB will continue to serve as robust theoretical frameworks to explore consumers' adoption of various technologies. The current research study adopts this scholarly viewpoint and further contributes to the literature by providing empirical support to those mentioned above unified theoretical framework and proposes a combined C-TAM-TPB model that is tested in the US insurance telematics industry setting.

The extant TAM literature review (see Table 1) reveals two main research workstreams that are investigated by researchers: automotive telematics and adjacent technologies (e.g., GPS, ADAS), and "other" technologies (i.e., not connected with insurance telematics, but using similar TAM-based models). The majority of articles in the first workstream are related to the acceptance of automotive telematics technology as an aid or as an enhancement targeted at improving driver's performance, even leading to the driverless car (Koul and Eydgahi, 2018; Rahman et al., 2017; Chen and Chen, 2009); or they take a new product development approach where TAM is merely seen as a secondary tool helping with the latest product introduction effort (Kongmuang and Thawesaengskulthai, 2019). Thus, the telematics technology acceptance is viewed mainly through a product-attribute or a product-development lens as applied to the core automotive industry. Therefore, adjacent industries or applications such as auto insurance received little to no coverage to date. A notable research sub-stream in the automotive telematics arena concerns the use of smartphones as system components or stand-alone devices to transmit automotive information (Wahlström et al., 2015; Handel et al., 2014).

This research study is positioned to bridge this gap, and thus, it explores the automotive telematics application to the auto insurance industry. It looks at technology acceptance through the higher-level lens of application benefit acceptance (i.e., telematics technology as an enabler of insurance benefits), rather than through the product-attribute acceptance, or product development lens. And concerning the second workstream, this research study differentiates itself from the other studies through its primary focus of inquiry, namely the insurance telematics technology. While using a similar TAM-based theoretical framework, it is applied to a different yet relevant technology and business context. A quick examination of Table 1 also reveals that most studies in the first workstream involved technology acceptance in overseas markets. This research brings yet another contribution to the literature by investigating the insurance telematics acceptance in the US markets in a usage-based-insurance setting representing a novel and emerging industry practice.

The proposed unified TAM-TPB research model is presented in Figure 1 and represents the theoretical framework underpinning this research study. The model suggests that people's attitudes motivated their behavior, and two factors in particular - Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) - have a significant impact on the individual's intention to use insurance telematics technology. Respectively, PU and PEOU are defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" and "the degree to which a person believes that using a particular system would be free from effort" (Davis, 1989). The original TAM model also hypothesized that PU is dependent on PEOU.

Finally, with emerging new technologies in the market, the consumers' perspectives and experiences, and especially those of the new *Millennials* generation (also known as "Generation Y" or "Digital Generation"), present both an opportunity and a challenge for technology firms. Millennials are sophisticated shoppers (Jackson et al., 2011) and more reluctant to receive commercially-oriented information (Gauzente and Roy, 2012). The literature on Millennials and technologies has discussed topics including mobile usage and adoption, consumption patterns, factors of multimedia adoption, social commerce and lifestyle implications (Carroll et al., 2002; Wilska, 2003; Pagani, 2004; Abraham and Harrington, 2015; Șchiopu et al., 2016). While driving, however, young drivers tend to see less danger and take a higher risk than older drivers (Brockett and Golden, 2007).

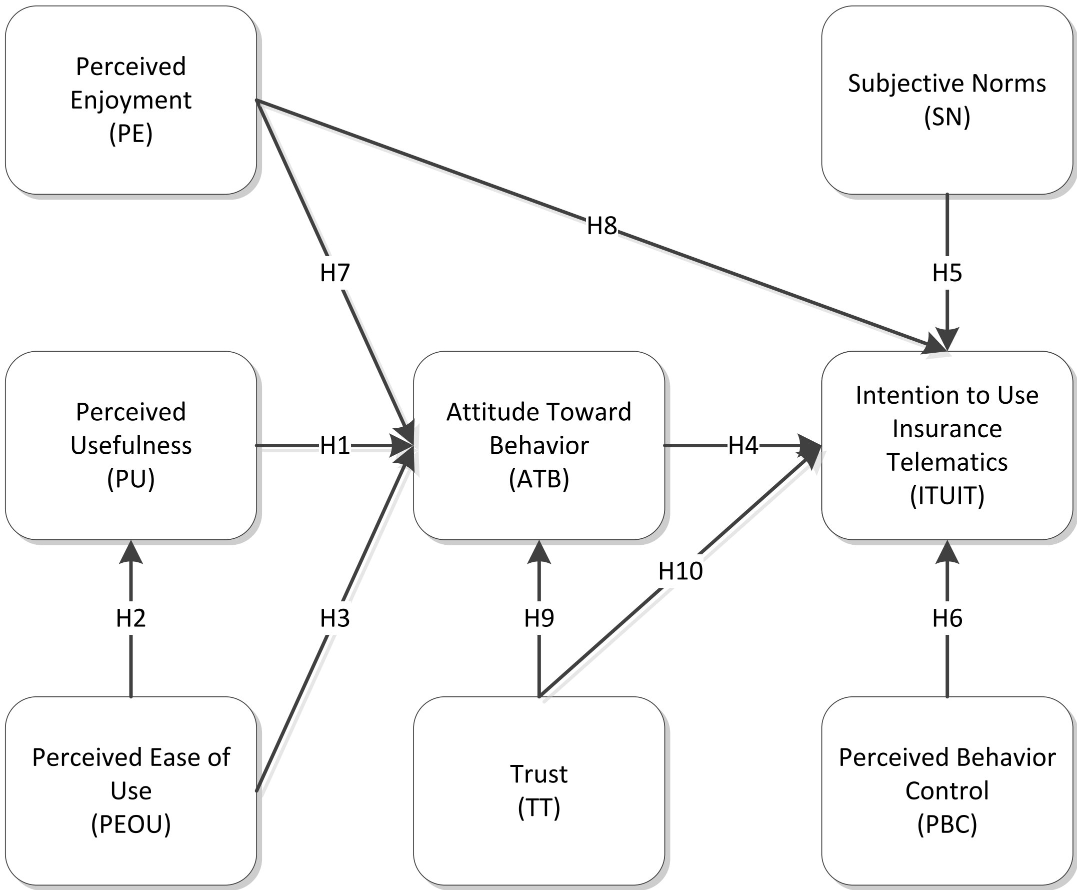
Table 1: Overview of Existing TAM-based Research

Research Study	Constructs	Theory	Research Method	Findings	Industry /Context	Country
(Kongmuang and Thawesaeng skulthai, 2019)	*Perceived usefulness, Perceived ease of use, Attitude toward using, Intention to use, Facilitating conditions, Trial-ability*	*TAM, Diffusion of Innovation (DOI)*	*New product development process, Survey*	*- Users are neither satisfied nor dissatisfied with Telematics app - Users had rarely accepted and intended to use the Telematics app - The lowest scores of technology acceptance were intention to use, facilitating conditions, and trial-ability*	*Insurance*	*Thailand*
(Sundjaja and Komala, 2019)	*Website quality, Multichannel integration quality, Web trust, Online perceived value, Online purchase intention*	*TAM*	*Survey, PLS-SEM*	*- Web trust, mediated by online perceived value, significantly influences online purchase intention*	*Insurance*	*Indonesia*
(Koul and Eydgahi, 2018)	*Perceived usefulness, Perceived ease of use, Years of driving experience, Age, Intention to use*	*TAM*	*Survey*	*- Significant relationships between perceived usefulness, perceived ease of use and Intention to use driverless cars - Meaningful negative relationships between years of driving experience, age and intention to use driverless cars*	*Driverless cars*	*US*
(Rahman et al., 2017)	*TAM: Perceived usefulness, Perceived ease of use, Behavioral intention to use, Actual system use TPB: Attitude toward behavior, Subjective norm, Perceived behavioral control, Intention, Behavior UTAUT: Performance expectancy, Effort expectancy, Social influence, Facilitating conditions, Behavioral intention, Use behavior, Age, Gender, Experience, Voluntariness*	*TAM, TPB, UTAUT*	*Survey, Experiment (driving simulator), Multiple regression*	*- All models (TAM, TPB, UTAUT) can explain driver acceptance with their proposed sets of factors - Among the models, TAM was found to perform the best in modeling driver acceptance*	*Advanced Driver Assistance Systems (ADAS)*	*US*
(Rodrigues, et al., 2016)	*Perceived usefulness, Perceived ease of use, Intention to use, Perceived enjoyment, Socialness*	*TAM*	*Quantitative studies, SEM*	*- Ease-of-use and enjoyment are interrelated, and both have influence in e-banking usage -Ease-of-use and enjoyment are important in serious games*	*e-Banking software*	*Portugal*
(Wang et al., 2016)	*Perceived ease of use, Perceived usefulness, Intention to use, Perceived enjoyment, Perceived compatibility*	*TAM, DOI*	*Survey, CFA, SEM, Regression*	*- Perceived ease of use, perceived usefulness, perceived compatibility, and perceived enjoyment are significant factors driving adoption of 3D printing systems - Age, gender, design background are significant moderators*	*3D Printing*	*China*

	Moderators: Age, Gender, Education, Designer background			*- Education level is not a significant moderator*		
(Wu, Wu, and Chang, 2016)	*Relative advantage, Ease of use, Compatibility, Result demonstrability, Enjoyment, Social influence, Attitude, Behavioral intention, Gender, Age*	*TAM, UTAUT, DOI*	*Survey, PLS-SEM*	*- Attitude is a significant factor - Ease of use was not significant - Gender was not significant - Individuals 35 to 54 years old exhibit a significant demand for enjoyment in their use of the smartwatch*	*Consumer electronics (smartwatch)*	*Taiwan*
(Lee et al., 2015)	*Perceived usefulness, Perceived ease of use, Attitude toward use, Behavioral intention*	*TAM*	*Experiment*	*- TAM confirmation as applied to intention to use car voice interface - Suggests model extension to include a direct effect of perceived ease-of-use on behavioral intentions - Perceptions and acceptance may be influenced more by design attributes and interaction methods than by demographic characteristics such as age or gender*	*Voice interfaces*	*US*
(Tseng et al., 2013)	*Perceived quality, Perceived usefulness, Perceived ease of use, Attitude, Behavioral intention, Subjective norm, Perceived behavioral control, Perceived enjoyment*	*C-TAM-TPB*	*Survey, PLS_SEM*	*- Perceived ease of use, attitude, perceived behavioral control, usefulness and subjective norm influences an individual's behavioral intention*	*Sattelite Navigation Fleet Management Systems*	*Taiwan*
(Chen and Chen, 2011)	*Perceived usefulness, Perceived ease of use, Attitude toward using, Behavioral intention to use, Perceived enjoyment, Personal innovativeness*	*TAM*	*Survey, Hierarchical regression*	*- Perceived ease of use has a significant positive effect on perceived usefulness - Perceived usefulness, perceived enjoyment and perceived ease of use have significant positive effects on attitude toward usage - Attitude toward usage has a significant positive effect on behavior intention - Personal innovativeness is found to moderate the relationship between attitude and behavior intention*	*GPS*	*Taiwan*
(Sung and Yun, 2010)	*Perceived usefulness, Perceived ease of use, Intention to use, Actual use, Perceived enjoyment, Aesthetics, Flow, Social presence*	*TAM*	*Survey*	*- Perceived enjoyment is influencing perceived usefulness and Perceived ease of use and directly behavior intention - Aesthetics and flow are key determinants to explain perceived enjoyment in mobile multimedia usage context*	*Mobile multimedia*	*US*
(Wells et al., 2010)	*Perceived Innovativeness for IT, Perceived novelty, Perceived risk, Perceived reward,*	*TAM*	*Survey, SEM*	*- Perceived novelty is a salient affective belief that plays a significant role in the adoption of IT innovations*	*Information Technology*	*US*

	Attitude, Behavioral intention					
(Wei et al., 2009)	*Perceived usefulness, Perceived ease of use, Social influence, Perceived cost, Trust, Intention to use*	*TAM, TPB, DOI*	*Survey, Multiple regression*	*- Perceived usefulness, social influence, perceived cost and trust are positively associated with intention to use - Perceived ease of use is not significant*	*Mobile Commerce*	*Malaysia*
(Chen and Chen, 2009)	*Perceived usefulness, Perceived ease of use, Attitude, Behavioral intention Attitude, Subjective Norms, Perceived behavioral control, Behavioral intention*	*TAM, TPB, C-TAM-TPB*	*Survey, SEM*	*- Perceived ease of use, attitude and perceived behavioral control was very important - Usefulness and subjective norms did not influence behavioral intention.*	*Automotive Telematics*	*Taiwan*
(Chang et al., 2008)	*Social factors, Facilitating conditions, Near-term consequences, Long-term consequences, Affect, Complexity, Compatibility, Usage*	*Triandis (TAM-based)*	*Survey, Multiple regression*	*- Social factors are the most significant - Compatibility and near-term consequences are also significant*	*ERP Systems*	*Hong Kong*

Figure 1: Research Model



HYPOTHESES DEVELOPMENT

This research study contends that causal relationships exist between Millennial's perception of insurance telematics and its adoption and use by Millennials. This would depend on the cognitive choices of younger users to respond favorably to the technology and its benefits.

Perceived ease of use is described in the literature as the extent to which a user expects the system to be free from effort. Perceived usefulness is the degree to which a user believes that the system would help increase his or her performance at work or in real-life situations (Davis, 1989). These two are critical constructs of TAM and have been widely found to influence behavioral intention to use a technology or technology-enabled service (Ogbanufe et al., 2019; Wu and Chen, 2005; Chen and Chen, 2009; Sternad et al., 2011; Rodrigues et al., 2016; Miao et al., 2017).

The adoption and use of insurance telematics largely depend on how smoothly a user can operate the device, manage the system, and access and understand the driving behavior information. The easier a system is to use, the more useful it is believed to be (Brown et al., 2002). The ease of use of telematics devices would also lead to a faster perception of its benefits and a positive attitude towards its adoption and use. Moreover, when users believe that insurance telematics is useful to help improve driving behavior and safety, earn economic benefits such as insurance discounts, and help benefit from additional services such as vehicle location and roadside assistance, it tends to influence their behavioral attitude and intention to use insurance telematics. The above argument leads to proposing that:

H1. *PU (Perceived Usefulness) positively influences ATB (Attitudes toward Behavior)*
H2. *PEOU (Perceived Ease of Use) positively influences PU*
H3. *PEOU positively affects ATB*

Prior studies reveal that the more positive the attitude, the higher the intention to use the technology (Davis, 1989; Ajzen,1991; Hu et al., 1999; Wu and Chen, 2005; Chen and Chen, 2009; Plewa et al., 2012). Therefore, upon experiencing insurance telematics, Millennials may develop memorable and lasting experiences that translate into the development of favorable feelings that further influence their adoption behavior. Thus, the study sets:

H4. *ATB positively changes ITUIT (Intention to Use Insurance Telematics)*

Subjective norms have been found to be significant factors impacting behavioral intention. Consumers tend to use new technology when somebody they trust thinks that they should use such technology (Ajzen, 1991; Wu and Chen, 2005; Chang et al., 2008; Chong et al., 2015). For the young generations, family members, close friends, and social influencers could affect their acceptance intention. Therefore, the study posits that:

H5. *SN (Subjective Norms) positively influences ITUIT*

Perceived Behavior Control (PBC) refers to the user's confidence and ability to engage in the behavior, and it is a significant determinant of intention to carry out the behavior. The extant literature shows that the user's intention becomes more robust with his or her perceived ownership of the power to control the technology or use relevant resources (Ajzen, 1991; Wu and Chen, 2005; Ba and Johansson, 2008; Chen and Chen, 2009). The study hypothesizes that the more resources and control power Millennials possess, the higher the probability that they will adopt and use the insurance telematics:

H6. *PBC positively influences ITUIT*

To enhance the research model and increase its explanatory power, the study introduces two additional factors: Perceived Enjoyment (PE) and Trust (TT). PE is associated with the usage process and users' pleasure and enjoyment while using technology (Praveena and Thomas, 2014). Millennials rely more on technology to obtain enjoyment than previous generations. Prior studies found that the PE has a positive effect on both the behavioral attitude and the intention to use various technologies such as web (Moon and Kim, 2001; Van der Heijden, 2003), smartwatch (Wu, Wu and Chang, 2016), household technologies (Ahn et al., 2016), 3G wireless (Phuangthong and Malisawan, 2005), 3D printing (Wang et al., 2016), and social media (Praveena and Thomas, 2014). A study by Sung and Yun (2010) suggested that PE directly influences behavior intention. Millennials' natural grasp of technology leads them to seek and derive fun and enjoyment from interacting with the technology. When Millennials perceive insurance telematics as fun and enjoyable, they are more likely to develop a positive attitude and be motivated to use this technology. Therefore, the study hypothesizes that:

H7. *PE (Perceived Enjoyment) positively influences ATB*

H8. *PE positively influences ITUIT*

Trust has been widely studied in various contexts such as financial services (Pevzner et al., 2015; Guiso et al., 2008; Duarte et al., 2012), social networks (Carlin et al., 2009), supply chain systems (Panayides and Lun, 2009), and health services (Mou et al., 2017). However, when dealing with technology, the trust would emerge from the experiential outcomes resulting from repeat transactional processes and interactions with the technology (Kim et al., 2008), and it represents a significant factor influencing the perceived risk and uncertainty surrounding new technology adoption (Li et al., 2008).

In traditional insurance telematics business settings, the device and the insurance company collect and own all trip data related to drivers. Therefore, the drivers cannot directly observe how much data the insurance company stores, how the insurance company uses the data, and whether the insurance company will protect sensitive personal information appropriately. Thus, trust becomes a critical issue for many insurance telematics users, including Millennials, and the study hypothesizes the following:

H9. *TT (Trust) positively influences ATB*
H10. *TT positively influences ITUIT*

Table 2 below presents a summary of the hypotheses that establish the proposed research model in Figure 1.

Table 2: Hypotheses Summary

Hypotheses
H1: *Perceived usefulness (PU) positively influences attitudes toward the behavior (ATB)*
H2: *Perceived ease of use (PEOU) positively influences perceived usefulness*
H3: *Perceived ease of use positively affects attitudes toward the behavior*
H4: *Attitude towards behavior positively changes intention to use insurance telematics (ITUIT)*
H5: *Subjective norms (SN) positively influences intention to use insurance telematics*
H6: *Perceived behavioral control (PBC) positively influences intention to use insurance telematics*
H7: *Perceived enjoyment (PE) positively influences attitudes toward the behavior*
H8: *Perceived enjoyment positively influences intention to use insurance telematics*
H9: *Trust (TT) positively influences attitudes toward the behavior*
H10: *Trust positively influences intention to use insurance telematics*

RESEARCH METHOD

This research study was designed as a cross-sectional field survey, an established method well suited to capture and control for multiple variables and to study the insurance telematics technology adoption and use by Millennials using multiple theories (i.e., TAM and TPB). The process was to identify constructs and variables that reflect the nature of the suggested relationships, develop a research model to test these variables empirically, collect and analyze data, and report the results. The data analysis was performed using the Partial Least Squares – Structural Equation Modeling (PLS-SEM) method implemented in the SmartPLS software package version 2.0. SmartPLS was the software tool of choice here due to its ability to analyze multiple relationships simultaneously, its intuitive graphical user interface, and its thorough reports.

To delineate the concepts correctly, this research study adapted TAM and TPB constructs from the literature and carefully rephrased each item to fit the insurance telematics context, as shown in Appendix B. In addition to testing an integrated TAM-TPB theoretical framework, the study investigates the effects of trust and enjoyment for the insurance telematics adoption and use.

MEASURES

A questionnaire instrument was designed for data collection based on the literature and was reviewed for face and content validity by a panel of experts, in a preliminary pilot study. The reviewers included university professors and Ph.D. students actively involved in information technology research and teaching. The initial questionnaire included 57 construct-related items adapted from the literature to the insurance telematics context and five demographic variables, all measured on a five-point scale from "strongly disagree "to "strongly agree." During the pilot test phase, 8 Ph.D. students from the information system, computer science, management science, and marketing departments were asked to comment, and 27 items were modified based on their feedback. The resulting questionnaire instrument is presented in Appendix B.

PARTICIPANTS AND DATA COLLECTION

The survey was administered online using the Qualtrics web-based platform, which was chosen due to its intuitive graphical user interface and its wide industry recognition. The target population was Millennials (also known as "Generation Y" or "Digital Generation") born approximately between 1980 and 2000 (Eastman et al., 2014). The sampling frame was comprised of undergraduate students enrolled in business classes at a public university in the United States, aged 19 to 36. This group fit the target population profile, and therefore the sample frame was deemed appropriate.

The link to the survey was posted online on the course webpage managed by students' instructors. The students willing to participate in the survey earned extra credit for completion, while the non-participants were presented with equal assignment opportunities to earn the extra credit. To provide proper context and knowledge to the participants before answering the questions, the survey starts with a brief introduction to the research goals, scope, process, and functionality of the insurance telematics systems. The survey was announced to students and was open for 23 days.

During the data validation and cleaning process, 19 invalid responses were removed, and the final sample contained 138 usable responses, for a response rate of 77%. Statistical power was assessed using the G*Power 3.1 software tool. The minimum sample size needed to achieve 95% power and capture an effect size of 0.3 (medium effects) was 111 for a one-tailed test and 134 for two-tailed. The actual sample size of 138 was larger than the minimum required, therefore the statistical power was adequate.

RESULTS

NON-RESPONSE BIAS, COMMON METHOD BIAS, AND DESCRIPTIVE STATISTICS

The non-response bias in the final sample was assessed using a two-group independent t-test on age, gender, driving experience, mileage driven last year, and user experience. The results did not identify a difference between the first 90% of respondents and the last 10% of respondents, suggesting an absence of non-response bias.

The common-method bias has been examined using Harman's one-factor test. The test showed no evidence that one single factor explains most of the variances. Therefore, no common method bias was detected in the final sample.

Table 3 below exhibits the descriptive statistics of the final sample. The results reveal that the average age of respondents is 22.45, with most of the participants being under 23 (71%). More than 90% of them had a driving experience of 2 years or more, and 44.2% of them had more than 6 years. Last year, 10.9% of respondents drove less than 1000 miles, 26.1% drove between 1001 to 5000 miles, 26.1% drove between 5001 to 10000 miles, 25.4% drove between 10001 to 20000 miles, and 11.6% drove more than 20000 miles. A notable result is that 13% of participants are already using insurance telematics.

Table 3: Descriptive Statistics

Total Responses	**138**		
Age	**Mean**		**Std. Deviation**
	22.45		*3.917*
		Frequency	**Percent**
Gender	*Female*	*70*	*50.7*
	Male	*68*	*49.3*
Driving Experience	*<2 years*	*12*	*8.7*
	2-5 years	*65*	*47.1*
	>=6 years	*61*	*44.2*
Mileage Last Year	*<=1000 Miles*	*15*	*10.9*
	1001-5000 Miles	*36*	*26.1*
	5001-10000 Miles	*36*	*26.1*
	100001-20000 Miles	*35*	*25.4*
	>20000 Miles	*16*	*11.6*
Usage Experience	*No*	*120*	*87.0*
	Yes	*18*	*13.0*

MEASUREMENTS MODEL ASSESSMENT

The suitability of the measurement model was established through the evaluation of constructs' reliability (for internal consistency) and validity (convergent and discriminant). Construct reliability was determined using the Cronbach's Alpha and Composite Reliability scores shown in Table 4. The results are higher than the acceptable threshold of 0.7. Therefore, all constructs have adequate reliability.

Table 4: Construct Correlations, Reliability and Validity

	CA	CR	AVE	ATB	IUIT	PBC	PEOU	PE	PU	SN	TT
ATB	*0.8853*	*0.9208*	*0.7440*	*0.8626**							
IUIT	*0.9387*	*0.9516*	*0.7663*	*0.7282*	*0.8754**						
PBC	*0.9108*	*0.9373*	*0.7890*	*0.4984*	*0.4257*	*0.8883**					
PEOU	*0.8865*	*0.9155*	*0.6844*	*0.4424*	*0.3266*	*0.5122*	*0.8273**				
PE	*0.9289*	*0.9442*	*0.7382*	*0.4939*	*0.658*	*0.2181*	*0.2004*	*0.8592**			
PU	*0.7791*	*0.8568*	*0.6000*	*0.7226*	*0.595*	*0.4591*	*0.5098*	*0.5145*	*0.7743**		
SN	*0.9306*	*0.9457*	*0.7451*	*0.4585*	*0.6313*	*0.3562*	*0.3642*	*0.5396*	*0.4753*	*0.8632**	
TT	*0.9122*	*0.9319*	*0.6995*	*0.7631*	*0.7128*	*0.5432*	*0.4442*	*0.5071*	*0.6131*	*0.4951*	*0.8364**

CA: Cronbach's Alpha
CR: Composite Reliability
AVE: Average Variance Extracted
***:** Square root of AVE

Table 5: Items Loading and Cross-Loading

Items/Components	Attitude towards Behavior (ATB)	Intention to Use Insurance Telematics (ITUIT)	Perceived Behavior Control (PBC)	Perceived Enjoyment (PE)	Perceived Ease of Use (PEOU)	Perceived Usefulness (PU)	Subjective Norms (SN)	Trust (TT)
ATB01	**0.8752**	0.6468	0.4834	0.4731	0.3775	0.6195	0.4204	0.6679
ATB02	**0.8448**	0.5403	0.4281	0.3583	0.4548	0.6706	0.3821	0.6051
ATB04	**0.8424**	0.6103	0.3932	0.3906	0.2889	0.5122	0.3007	0.6525
ATB05	**0.8873**	0.7035	0.4153	0.472	0.4045	0.6848	0.4669	0.7023
ITUIT01	0.5674	**0.8361**	0.3443	0.521	0.2385	0.4849	0.5736	0.5618
ITUIT02	0.7212	**0.9155**	0.3909	0.5839	0.3348	0.5649	0.534	0.6628
ITUIT03	0.6521	**0.9053**	0.3572	0.5793	0.239	0.5145	0.59	0.6366
ITUIT04	0.6523	**0.8764**	0.4118	0.479	0.2742	0.5146	0.5088	0.6512
ITUIT05	0.6506	**0.8738**	0.3689	0.6918	0.2902	0.552	0.5667	0.6516
ITUIT06	0.5704	**0.8422**	0.3633	0.5876	0.337	0.4878	0.5436	0.5722
PBC02	0.4223	0.3686	**0.8629**	0.2767	0.396	0.34	0.3907	0.5175
PBC03	0.4778	0.3432	**0.8696**	0.15	0.4776	0.4743	0.2675	0.4328
PBC04	0.458	0.3697	**0.9254**	0.1355	0.4776	0.4263	0.2773	0.4877
PBC05	0.4191	0.4225	**0.8937**	0.2079	0.4687	0.3971	0.3257	0.4883
PE01	0.4355	0.6028	0.1813	**0.8577**	0.2496	0.5013	0.4935	0.4459
PE02	0.4247	0.5811	0.1754	**0.8834**	0.2078	0.4968	0.472	0.4464
PE03	0.452	0.5382	0.2665	**0.8087**	0.1758	0.4378	0.3568	0.4495
PE04	0.388	0.5483	0.161	**0.8673**	0.1314	0.3848	0.4935	0.3777
PE05	0.4341	0.5911	0.1571	**0.8927**	0.0703	0.39	0.4955	0.4205
PE06	0.4081	0.5238	0.1839	**0.8431**	0.1969	0.4366	0.4686	0.4736
PEOU01	0.2925	0.2085	0.4571	0.052	**0.7623**	0.3098	0.3131	0.3654
PEOU02	0.3017	0.2313	0.4246	0.1419	**0.8394**	0.3741	0.1784	0.3646
PEOU03	0.3321	0.1982	0.4009	0.0626	**0.8551**	0.3888	0.251	0.2812
PEOU04	0.3092	0.215	0.3902	0.0853	**0.8417**	0.3823	0.2989	0.2938
PEOU05	0.51	0.4155	0.4452	0.3672	**0.835**	0.5655	0.4101	0.479
PU01	0.4765	0.4641	0.2783	0.4777	0.2761	**0.7363**	0.4511	0.4293
PU05	0.5098	0.3229	0.2921	0.3235	0.4006	**0.7764**	0.2832	0.4085
PU06	0.498	0.3811	0.4344	0.2898	0.4913	**0.7871**	0.3259	0.5044
PU07	0.714	0.6415	0.395	0.5014	0.3924	**0.796**	0.4196	0.5385
SN01	0.4446	0.6107	0.3244	0.5114	0.2778	0.4441	**0.9165**	0.446
SN02	0.4135	0.5649	0.3001	0.5364	0.3561	0.4446	**0.9063**	0.4449
SN03	0.4426	0.6226	0.3247	0.5442	0.3484	0.4772	**0.9292**	0.5062
SN04	0.4091	0.4331	0.4023	0.2561	0.3965	0.423	**0.7657**	0.4089
SN05	0.3839	0.5692	0.3011	0.497	0.287	0.4161	**0.8767**	0.4464
SN06	0.2612	0.4264	0.199	0.3931	0.2346	0.2241	**0.7685**	0.2826
TT01	0.6518	0.5704	0.5126	0.3597	0.3521	0.4705	0.4036	**0.8684**
TT02	0.7133	0.6737	0.5207	0.4328	0.3663	0.548	0.4994	**0.8483**
TT03	0.6151	0.5561	0.3659	0.4577	0.4042	0.4993	0.4602	**0.8031**
TT04	0.6112	0.6108	0.4218	0.4974	0.3132	0.5273	0.4035	**0.806**
TT05	0.6143	0.5728	0.4218	0.4049	0.3536	0.4763	0.297	**0.8169**

TT06	*0.5993*	*0.5687*	*0.4622*	*0.3829*	*0.4376*	*0.5416*	*0.4*	***0.8586***
AVE	*0.7441*	*0.7663*	*0.789*	*0.7383*	*0.6845*	*0.5995*	*0.7451*	*0.6995*
Cronbach's Alpha	*0.8853*	*0.9387*	*0.9108*	*0.9289*	*0.8865*	*0.7791*	*0.9306*	*0.9122*
Composite Reliability	*0.9208*	*0.9516*	*0.9373*	*0.9442*	*0.9155*	*0.8568*	*0.9457*	*0.9319*

Scale Anchor: 1= Strongly Disagree; 5=Strongly Agree

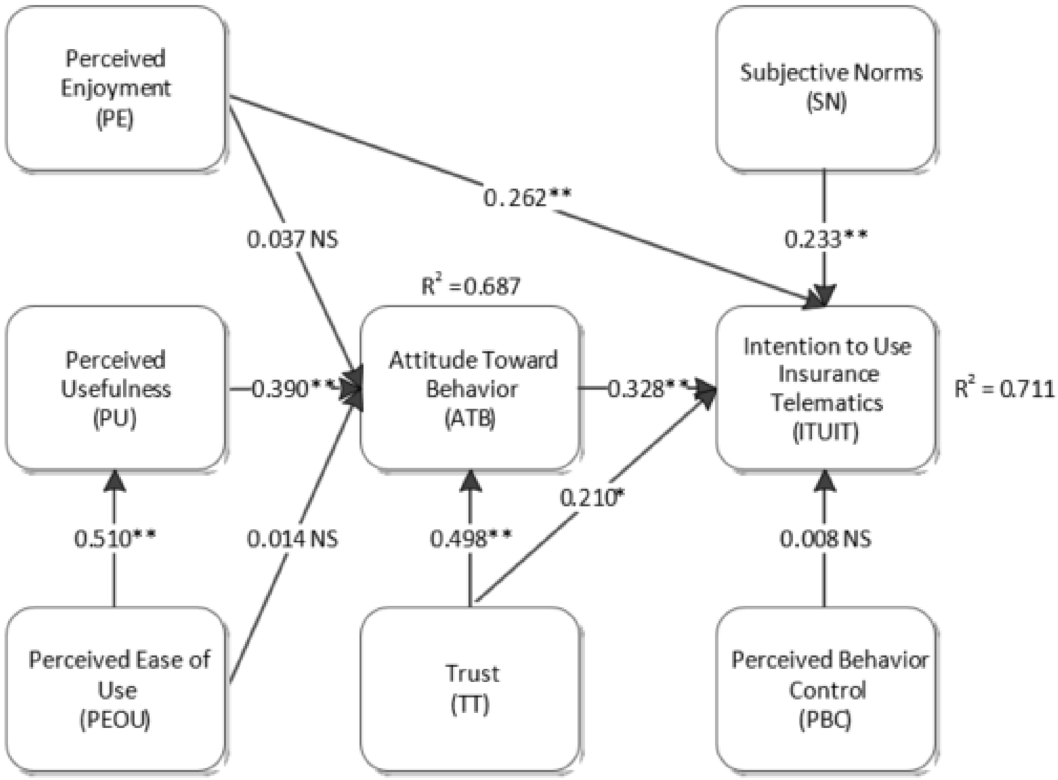
The convergent validity was examined using the Average Variance Extracted (AVE) statistic. The results in Table 4 show that all AVE values are higher than the minimum threshold of 0.5. Therefore, the convergent validity is established. The discriminant validity was examined at the construct and indicator levels using the square root of AVE and the item's cross-loading criteria, respectively. The results illustrated in Table 4 reveal the square root of AVE values that are greater than 0.5 and higher than their respective inter-construct correlations, thus indicating adequate construct-level discriminant validity. Furthermore, Table 5 shows that the measurement items load the highest on the construct they are intended to measure while loading to a much lesser extent on the other constructs, therefore item-level discriminant validity is achieved.

STRUCTURAL MODEL ASSESSMENT

The structural model is validated by examining path coefficients (magnitude, sign, and statistical significance) and the R^2 factors, which are indicative of model goodness of fit. The PLS-SEM method (implemented in the SmartPLS software package) was used to perform the multiple regressions analysis. The significance of path coefficients was assessed using the SmartPLS bootstrap method with a sample size of 5000.

Figure 2 and Table 6 below provide the PLS-SEM analysis and hypotheses testing results. All hypotheses were statistically significant except for H3, H6, and H7, which indicate insufficient evidence to assert that perceived behavior control, perceived ease of use, and perceived enjoyment are significant predictors of intention to use, respectively attitude towards insurance telematics. These findings are in line with similar results in the literature (Wang et al., 2016).

Figure 2: Research Model Results



** Statistically significant at 0.01 level
* Statistically significant at 0.1 level
NS Not significant

Table 6: *Summary of Hypotheses Results*

Hypotheses	Path Coefficients (beta)	Statistical Significance (p-value)	Results
H1: Perceived usefulness (PU) positively influences attitudes toward the behavior (ATB)	*0.390*	*0.000*	*Supported*
H2: Perceived ease of use (PEOU) positively influences perceived usefulness	*0.510*	*0.000*	*Supported*
H3: Perceived ease of use positively affects attitudes toward the behavior	*0.014*	*0.788*	*Not supported*
H4: Attitude towards behavior positively changes intention to use insurance telematics (ITUIT)	*0.328*	*0.000*	*Supported*
H5: Subjective norms (SN) positively influences intention to use insurance telematics	*0.233*	*0.002*	*Supported*
H6: Perceived behavioral control (PBC) positively influences intention to use insurance telematics	*0.008*	*0.905*	*Not supported*
H7: Perceived enjoyment (PE) positively influences attitudes toward the behavior	*0.037*	*0.583*	*Not supported*
H8: Perceived enjoyment positively influences intention to use insurance telematics	*0.262*	*0.000*	*Supported*

H9: Trust (TT) positively influences attitudes toward the behavior	*0.498*	*0.000*	*Supported*
H10: Trust positively influences intention to use insurance telematics	*0.210*	*0.017*	*Supported*

THEORETICAL CONTRIBUTIONS

This research study makes four key theoretical contributions to the literature. First, the results of this study confirmed the integrative and predictive power of combined theoretical frameworks such as TAM-TPB being applied to the study of the consumers' adoption and use of high-tech technologies. This study has determined that the proposed integrated TAM-TPB model can explain Millennials' acceptance and use of insurance telematics. It also suggests that the theoretical explanatory foundation used by researchers should now shift from explaining product development drive to the justification of critical practical applications of the automotive telematics technology.

Second, an important finding of this study is that the young generation's perceived ease of use only indirectly affects the attitude towards behavior through perceived usefulness of insurance telematics. This suggests an evolutionary shift in Millennials' preferences in the adoption and use of this technology from mere *functionality* evaluation to the more sophisticated *applicability* sought in real work and life scenarios. Moreover, perceived enjoyment was found to influence the intention to use rather than the attitude formation, thus acting more as a trigger rather than a forming factor, and further, reflect its determinant role and its contribution to determining overall applicability for Millennials.

Third, this study reveals that trust emerges as a critical factor influencing both the behavioral attitudes and the intention to use for Millennials. Therefore, insurers should focus on priority on building trust with the younger generations to achieve higher levels of insurance telematics adoption and use.

Finally, this study provides confirmatory support that the Millennials' use of social media may lead to the subjective interpretation of social norms and, as a result of it, to behavioral changes with regards to the technology adoption and use.

PRACTICAL CONTRIBUTIONS

This research study found that a user-friendly insurance telematics system that does not interfere with consumers' driving would influence Millennials' attitudes towards using it. This is in line with the literature, which suggests that for Millennials, system utility/functionality and user interface are crucial (Leon, 2018). Therefore, this study suggests that insurance companies continue to enhance the ease of use and usability of their insurance telematics technology through innovation and creativity. For example, they can improve the type, the size and the user interface of telematics devices (e.g., touchscreen, graphics, use of smartphones), make data available and transferable to the end-user and use that to provide relevant new services to Millennials such as vehicle remote diagnostics, driver behavior assessment and feedback, loss forecast and modeling services, and location assistance through the telematics platform. Furthermore, these new services can be combined with other related insurance services.

Consistent with (Li et al., 2008) who found that users with no experience and expertise in technology tend to use intuitive and cognitive processes to make trust inferences, the current research study exposes that trust has a significant impact on Millennials' attitudes and intention to use telematics technology. Thus, insurers should show a positive and persuasive message about the technology to earn Millennials' trust. Insurers could employ previous user experiences or user accounts of the benefits of technology in other settings or scenarios to obtain a stronger, positive and memorable attitude for the insurance telematics technology, which further builds the perception of trust. Inviting Millennials to review new telematics offers and gathering opinions from them would boost trust as well.

Johnson and Eagly (1989) find that high-involvement people are more persuaded than others. When people are more involved, they believe more in technology. The current insurance telematics technology mainly interacts with drivers by reporting driving data. But to attract more young people to use this technology, insurance companies should expand the entertainment features and encourage people's involvement, by including highly interactive modules, rich graphical use interfaces, and such features such as driving scores, tips sharing, or interaction with peers and family on multiple mobile devices and social media. Recently, working with Toyota Motor, Aioi Nissay Dowa, a leading insurance company in Japan, provides its telematics insurance service under a concept of enjoyment. The safe driving report, map, and alert are enjoyment features that support both policyholders' safe driving in a secure state (Toyota, 2017).

Educating young consumers on the benefits of technology and building trust and a positive attitude would alleviate their privacy concerns. Due to the impact of user experience on acceptance, insurers should make their telematics technology and services convenient to attract and retain young customers. The study findings confirm that PU is a significant antecedent of attitude towards the behavior. Unlike previous studies, PBC has no significant effect on the intention to use insurance telematics. This may be explained by the fact that Millennials, as a social group frequently exposed to technology, are more willing to try new technologies and show less concern for the difficulty of using such plugged-in devices. The evidence is also consistent with the result that PEOU does not have a significant influence on attitude.

The insurance telematics can help young drivers to mitigate driving risks. Parents usually play an important role in influencing children's behavior, and parental authority is one of the crucial factors which affect the decision-making process of young people. Insurance telematics offers a solution to alleviate parents' concerns about children's driving. The parents who are concerned about the safety of their children could apply pressure to use it. The insurance industry can develop, design, introduce, and market the technology directly to parents, or use the influence of parents to drive the acceptance of the technology. Companies like Spanish MAPFRE insurance offer their DriveAdvisor program to give parents feedback online (MAPFRE Insurance, 2019). Social media is playing a significant role in communication between individuals and organizations (Guesalaga, 2016). Accordingly, this study found that subjective norms significantly influence intention to use and thus it recommends insurers to monitor and analyze young users' relevant social media activities through business intelligence techniques to drive actionable offer development and managerial insight in areas such as product design, claims management, marketing, risk analysis, and others.

LIMITATIONS AND FUTURE RESEARCH

Being structured as a field research study based on a convenience student sample, the generalizability of its findings may be limited to its target population (i.e., Millennials) and geography (i.e., USA). Further studies are encouraged that would explore the adoption and use of insurance telematics by different age groups in diverse populations and geographies.

This research study did not differentiate between the consumer (i.e., personal) and work (i.e., professional) adoption and usage of insurance telematics. Moreover, the study explores one specific application of automotive telematics (i.e., insurance). Future studies may investigate other major applications of automotive telematics, such as smartphone-based telematics or self-driving cars.

Even if the proposed research model provided strong empirical support, it might not be all-inclusive. For example, moderation relationships or additional explanatory variables such as resistance to innovation and willingness to relinquish driving control could be considered. Thus, future research may consider different explanatory theoretical frameworks or test alternative models in various contexts.

CONCLUSION

This research study proposes a new conceptual model and provides confirmatory support to explain the adoption and use of insurance telematics by Millennials. This technology optimizes insurance companies' operations by alleviating the information asymmetry and mitigating the moral hazard and adverse selection (Chen and Jiang, 2019). Currently, many of the market participants promote insurance telematics as a useful tool to reduce the premium payment and support safe driving. There is, however, a tendency to overlook other vital issues for Millennials, whose attitude may be the most crucial factor in adopting the insurance telematics technology. Through its significant theoretical and practical contributions to scholars and practitioners, this study suggests that: (1) current insurance telematics technology could benefit from further improvement; and (2) the insurers should re-evaluate their strategies and pay more attention to feedback that represents the customers' perception of the technology.

Appendix A: Telematics Programs Worldwide

Insurance Company	Market	Telematics Program
Allstate	*United States*	*Drivewise*
Aviva	*United Kingdom*	*Aviva Drive*
AXA Malaysia	*Malaysia*	*FlexiDrive*
Bajaj Allianz	*India*	*Drive Smart*
Groupama	*France*	*DriveProfiler*
Industrial Alliance	*Canada*	*Mobliliz*
MAPFRE	*Spain*	*DriveAdvisor*
MS&AD Insurance	*Japan*	*Biz Safety*
Nationale-Nederlanden	*Netherlands*	*Bundelz*
NTUC Income	*Singapore*	*Drive Master & FlexiMileage*
Progressive	*United States*	*Snapshot*
P&V	*Belgium*	*WeCover*
Signal Iduna	*Germany*	*AppDrive*
State Farm	*United States*	*Drive Safe & Save*
Unipol Assicurazioni	*Italy*	*Octo Telematics*
UNIQA	*Austria*	*Safeline*

Appendix B: Questionnaire Items

Construct	Item	Measurement (Likert Scale: 1-5; 1 = strongly disagree, 5 = strongly agree)	Source
Intention to Use Insurance Telematics (ITUIT)	*ITUIT01*	*I intend to use Insurance Telematics while driving.*	*Davis (1989), Wu and Chen (2005), Chen and Chen (2009)*
	ITUIT02	*If I have an opportunity to use Insurance Telematics, I would use it.*	
	ITUIT03	*If I have access to the Insurance Telematics, I will use it as often as possible.*	
	ITUIT04	*I predict I will use Insurance Telematics in the future.*	
	ITUIT05	*I will strongly recommend others to use Insurance Telematics.*	
	ITUIT06	*I will continue to be a user of Insurance Telematics.*	
Perceived Ease Of Use (PEOU)	*PEOU01*	*My interaction with Insurance Telematics while driving is clear and understandable.*	*Davis (1989), Wu and Chen (2005), Chen and Chen (2009)*
	PEOU02	*Interaction with Insurance Telematics does not require lots of mental and physical effort.*	
	PEOU03	*It will be easy to learn how to use Insurance Telematics.*	
	PEOU04	*It will be simple to operate/ manage Insurance Telematics while driving.*	
	PEOU05	*I will feel less mental challenge while learning to use Insurance Telematics.*	
Perceived Usefulness (PU)	*PU01*	*Using Insurance Telematics would enhance my driving skills.*	*Davis (1989), Wu and Chen (2005), Chen and Chen (2009)*
	PU05	*Using Insurance Telematics would make my claim experience faster and easier.*	
	PU06	*Using Insurance Telematics would make an insurer customize insurance coverage for me.*	
	PU07	*The advantages of using Insurance Telematics will exceed the disadvantages.*	
Attitude Towards Behavior (ATB)	*ATB01*	*Using Insurance Telematics to manage driving activities is a good idea.*	*Ajzen (1991), Wu and Chen (2005), Chen and Chen (2009).*
	ATB02	*I like the idea of using Insurance Telematics to decrease accidents on the road.*	
	ATB04	*Using Insurance Telematics to decide insurance premiums is a smart idea.*	
	ATB05	*Using Insurance Telematics is a wise idea.*	
Subjective Norms (SN)	*SN01*	*People who are important to me would think that I should use Insurance Telematics.*	*Ajzen, (1991), Wu and Chen (2005), Chen and Chen (2009).*
	SN02	*People who influence me would think that I should use Insurance Telematics.*	
	SN03	*People whose opinions are valuable to me think I should use Insurance Telematics.*	
	SN04	*My parents would think that I should use the Insurance Telematics.*	
	SN05	*My close friends would think that I should use the Insurance Telematics.*	
	SN06	*Influencers or popular people on social media would think that I should use Insurance Telematics.*	
Perceived Behavioral	*PBC02*	*Using Insurance Telematics is entirely under my control.*	*Ajzen, (1991), Wu and Chen (2005),*
	PBC03	*I would be able to use the Insurance Telematics.*	
	PBC04	*I could use the Insurance Telematics proficiently.*	

Control (PBC)	*PBC05*	*I could make Insurance Telematics work well.*	*Chen and Chen (2009).*
Perceived Enjoyment (PE)	*PE01*	*Interacting with Insurance Telematics would make me feel happy.*	*Sung and Yun (2010), Praveena and Thomas (2014), and Wu et al. (2016)*
	PE02	*Using Insurance Telematics would make me feel enjoyment.*	
	PE03	*Using Insurance Telematics would be entertaining.*	
	PE04	*Using Insurance Telematics would be an ideal recreation.*	
	PE05	*Using Insurance Telematics would make me feel pleasure.*	
	PE06	*The real-time communication via Insurance Telematics would make me feel excited.*	
Trust (TT)	*TT01*	*I would believe that The Insurance Telematics is trustworthy.*	*Mayer et al. (1995), and Suh and Han (2002)*
	TT02	*I would trust in the benefits of the Insurance Telematics.*	
	TT03	*This Insurance Telematics company would keep its promises and commitments.*	
	TT04	*The company which uses Insurance Technology would keep its customers' best interests.*	
	TT05	*I believe the driving-based scores derived through Insurance Telematics data and mathematical models would be reliable.*	
	TT06	*I believe the driving data from Insurance Telematics would be precise and integrated.*	

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