# CUSTOMER ACCEPTANCE OF USAGE-BASED MOTOR INSURANCE POLICIES IN SRI LANKA

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Degree of Master of Business Administration in Information Technology Specialized in Business Analytics

Department of Computer Science and Engineering

University of Moratuwa Sri Lanka

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#### **Declaration**

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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| Name of the supervisor: Dr. H. M. N. Dilum Bandara                         |                   |
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#### **Abstract**

Motor insurance segment which accounts for a larger portion of the Gross Written Premium (GWP) of non-life insurance industry in Sri Lanka, is currently facing challenges such as increasing claims ratio, reduced switching costs, and intense completion, threatening both short and long-term profitability as well as sustainability of the industry. Usage-Based Insurance (UBI) is a relatively new concept mostly used in developed countries to overcome such challenges. In UBI the premium is calculated based on the level of risks the insured vehicle is involved with. If the vehicle is driven in a way, that is less prone to accidents, the premium is expected to be reduced and vice versa if not. This encourages policyholders to use their vehicles in a safer manner. However, drivers' interest in UBI seems to vary across countries with different policy models and contexts. Therefore, this study explores the Sri Lankan drivers' perception on accepting UBI policy schemes. 295 responses were collected from both online and printed forms which were analyzed using Structured Equation Modeling against the conceptual framework developed based on the Technology Acceptance Model. It was identified that the direct determinants of customers' acceptance of UBI are perceived individual benefits and concerns regarding the current premium calculation method. Moreover, UBI is preferred by the younger customers, and those who use their vehicles less and have involved in less accidents. Furthermore, if an insurer launches a UBI policy scheme, many drivers are willing switch to that insurer. It was also identified that privacy concerns were not a significant determinant for accepting UBI in the Sri Lankan context, though studies conducted elsewhere indicate so. Hence, this study indicates that Sri Lankan customers will accept UBI policy schemes if the insurers target the proper customer segments, emphasizing on the individual benefits.

Keywords: Internet of Things, Motor Insurance, Structural Equation Modeling, Telematics, Usage-Based Insurance

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#### **List of Abbreviations**

GPS Global Position System

GWP Gross Written Premium

IBSL Insurance Board of Sri Lanka

ICT Information Communication Technology

IoT Internet of Things

IT Information Technology

LV Latent Variable

MEMS Microelectromechanical Systems

NCB No Claim Bonus

PAYD Pay-As-You-Drive

PHYD Pay-How-You-Drive

SEM Structural Equation Modeling

SUV Sport Utility Vehicle

TAM Technology Acceptance Model

TRA Theory of Reasoned Action

UBI Usage-Based Insurance

UBP Usage-Based Pricing

VMT Vehicle Miles Travelled