Tourists' Intention on Acceptance of Smart Tourism Applications in Kandy Tourism Zone (With the Context of UTAUT Model)

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1. Introduction

Smart tourism means the application of information and communication technology to develop modern approaches and tools to develop the tourism industry such as the Internet of Things, mobile applications, location-based services, geo-tag services, Virtual Reality, Augmented Reality, social media, etc. (Ye, Ye, & Law, 2020). These advancements in information and communication technologies, in particular, motivate tourism destinations, governments, and practitioners to leverage smart technologies to optimize their decision-making in business planning and enhance the tourist experience (Ye, Ye & Law, 2020). Therefore, Governments, in the world such as in the U.S., Mainland China, and South Korea, Taiwan had been taken the initiative to build the prerequisite infrastructure and develop the necessary technologies to support smart tourism development (Li, Hu, Huang & Duan, 2017) and (Gretzel, Zhong & Koo, 2016). For example, China National Tourism Authority issued "Guidance to Promote Smart Tourism Development" in 2015 (Ye, Ye, & Law, 2020), and the smart Taiwan app is described on google pay stores as a smart trip tool that provides information before, during, and after a trip in Taiwan (Frank, Faa & Jeng Lin, 2012).

In such an environment, smart tourism applications are also essential for the tourism industry in Sri Lanka. Because the Internet is the main source of information that influences tourists to visit Sri Lanka. (Survey of Departing Foreign Tourists from Sri Lanka, 2017). Not only technically but also economically, tourism was the third-largest foreign exchange earner for the country, preceded by workers' remittances and textiles and garments, which significantly contributed to the Sri Lankan economy (STDA, 2019; Gunarathna, Nga, & Chan, 2013a). Sharpley,

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(2000) also suggested that many developing countries have recognized the possible contribution that the tourism industry can make to economic development. Therefore, the government should implement tourism development strategies as the main driver of economic growth (Fernando, Bandara, & Smith, 2016; Gunarathna, Nga, & Chan, 2013b).

Therefore, to uplift the tourism industry by utilizing modern technologies in Sri Lanka, various types of applications have already been introduced in Sri Lanka. Examples include GPS, Google Maps, Speak and Translate apps, booking.com, voice GPS driving, pick me, google earth, etc. and "Locomole" is the first experiential digital platform launched in Sri Lanka as proven by the Ministry of tourism development. (Mobitel launches experiential 'Locomole' app for tourists, 2021) This app also makes tourists more with the local community to make it a unique experience rather than having to depend on a tourism guide (Mobitel launches experiential 'Locomole' app for tourists, 2021). But the inclination of tourists toward these applications is still at a minimum today (Thennakoon & Welagedara, 2017; Gunarathna, Nga, & Chan, 2013b). And also, tourists who visit Sri Lanka have suggested that the tourism industry in Sri Lanka should further enhance the facilities provided for tourism consulting services (Survey of Departing Foreign Tourists from Sri Lanka, 2017). Therefore, it essentially understands its importance for tourists and users who intend to use such applications.

With this purpose, one of the Technology Acceptance Models is used as the guiding theoretical framework to determine the level of tourists' intention on accept technology's usefulness. Because intention to use is the main indicator of the effective use of an information system (Morris, Venkatesh, Davis & Davis, 2003) Therefore the model of the United Theory of Acceptance of Use of Technology (UTAUT) is used to measure the tourist intention on the acceptance of smart tourism applications. This model has been proposed by (Venkatesh, Morris, Davis & Davis, (2003) by combining common points in previous technology acceptance models. The variables focused in the model are Performance Expectancy, Effort Expectancy, Social Influence, facilitating conditions, Perceived Cost, and Risk on tourists' intention Venkatesh, Morris, Davis, & Davis, (2003) suggested that all of these

factors are found to be identified as direct antecedents of the information system-related behavior of a user.

2. Research Question

How is the tourists' intention on accepting smart tourism applications in the Kandy tourism zone according to the UTAUT Model?

3. Research Objectives

Main Objective:

- To examine the tourists' intention on accepting smart tourism applications in the Kandy tourism zone according to the UTAUT Model

4. Research Methodology

This study is based study on the Unified Theory of Acceptance and Use of Technology (UTAUT). Therefore, it can be identified as Performance Expectancy, Social Influence, Perceived Cost, Facilitating Conditions, Effort, and Risk as independent variables, and intention to use Smart Tourism Applications as the dependent variable. The population of this research was the Kandy tourism zone and the unit of analysis were the tourists who visit the major tourist designation in Kandy. Based on population characteristics, used Cochran's equation to identify a 404 sample size with a 5% non-response rate, and data were collected through the questionnaire using the cluster sampling method. The questionnaires are constructed via previous research studies and the reliability and validity of the questionnaire were tested using the Cronbach alpha coefficient and all the factor loadings were statistically significant and were above the minimum acceptable value of 0.70.

5. Data Analysis

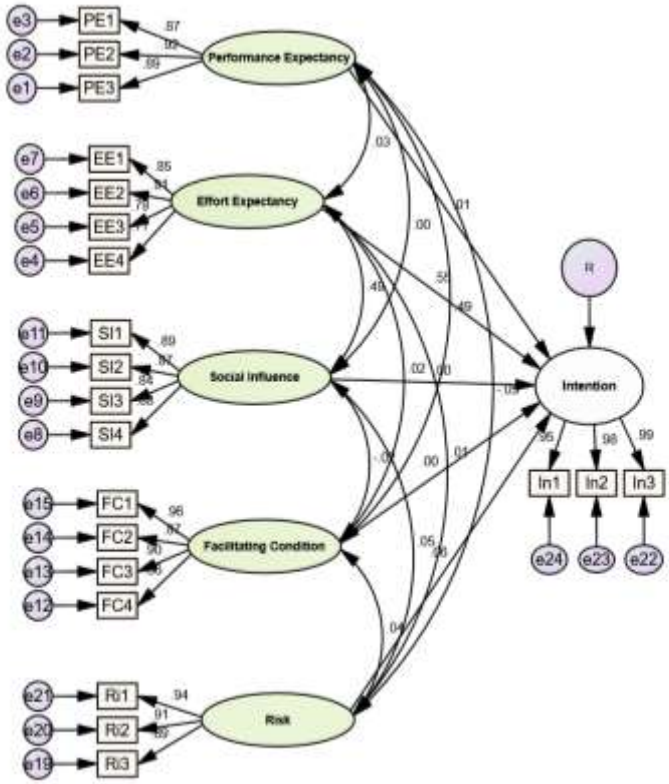
To simultaneously explore the influence relationships between latent variables, that are relatively abstract in concept and cannot be measured directly. Therefore, Statistical analysis and hypotheses were tested using structural equation modeling based on the optimization technique of the maximum likelihood method.

According to Kline (2005), the structural equation model is divided into two parts: a measurement model and a structural model. This study

followed Anderson and Gerbing's (1992) two-stage procedure. Firstly, we verified the instrument's reliability and validity by analyzing the measurement model; we then analyzed the structural model.

5.1 Evaluation of the Structural Model

Figure 1: Figure of the structural model



Source: Survey Data, 2022

An inspection of the fit indices to measure the model indicated that DF/ CMIN value was less than 3.0 and RMR values close to zero. Further NFI, AGFI, TLI, CFI, RFI, RNI, PGFI, PNFI, and PCFI values also range from zero to one. Therefore, it can be concluded that this overall model is acceptable through the significance of above the fit indices.

5.1 Path Analysis

According to the results of the path analysis, three independent variables in the model; performance expectancy, effort expectancy, and risk have supported the model, and another independent variable in the model;

social influence not supported by the model.

6. Findings

Finally, it has been proven that the UTAUT model can be applied to the Kandy tourism zone in Sri Lanka. Further, the findings showed that tourists' perception of the performance expectancy, effort expectancy, and risk are important factors in fostering the intention to use Smart Tourism Applications in the Kandy tourism zone.

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