

A study on user behavior for I Pass by UTAUT: Using Taiwan' s MRT as an
example

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Abstract

I Pass, the electronic ticket used by Kaohsiung MRT system, is a contactless electronic ticket developed on the basis of the Radio Frequency Identification (RFID) technology to increase convenience of this public transit system and ridership. This paper investigated Kaohsiung citizens' acceptance and use of I Pass using the Unified Theory of Acceptance and Use of Technology (UTAUT). The research model comprised of six constructs and four moderators. The constructs were performance expectancy, effort expectancy, social influence, facilitating conditions, behavioral intention, and use behavior, while the moderators were gender, age, experience, and voluntariness of use. It analyzed data collected from a questionnaire survey on users of I Pass and tested the quality of the questionnaire using several measurement criteria. Finally, correlations and strength of correlation between latent constructs were identified using Structural Equation Modeling. Results show that "Effect Expectancy" and "Social Influence" have significant and positive influence on "Behavioral Intention"; "Facilitating Conditions" and "Behavioral Intention" have significant and positive influence on "Use Behavior". Besides, all the moderators have moderating effects on the relationships between the latent constructs. This paper attempted to explore the main factors affecting users' usage of I Pass through empirical research and provide a reference for Kaohsiung Rapid Transit Corporation (KRTC) on future development of I Pass.

Keyword : I Pass, Kaohsiung MRT system, Contactless electronic ticket, RFID, UTAUT