Adopted Intention of Mobile Commerce from TAM Perspective: An Empirical Study of Real Estate Industry

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Abstract—Mobile commerce systems create a new mobile business model and change e-commerce paradigms, having an especially significant effect on the medical and insurance industries. Furthermore, the real estate industry is increasing in the booming market, but tends to become overheated. Thus, some innovative techniques (such as mobile commerce) were adopted by estate agent to enhance their competitive advantage. This study examines the usage behavior of a sample of users of the new technology of m-commerce using a technology acceptance model (TAM). In fact, technology acceptance model (TAM) is a well-known theory regarding the adoption of information technology (IT). Furthermore, this paper incorporates an additional behavioral construct, tool experience, to improve the predictive value of the original TAM model, named revised TAM. Additionally, the structural equation model (SEM) is used to verify the causal relationships between variables. Analytical results confirm that TAM appropriate for explaining the use of m-commerce for insurance industry.

I. INTRODUCTION

Wireless communication technology has allowed e-commerce to evolve, moving beyond being restricted to broad networks to include mobile commerce as well. Mobile commerce can be viewed as a sub-category of e-commerce [4] and refers to transactions with monetary value that are conducted via mobile networks [3]. Users engaged in mobile commerce simply use some mobile handheld devices such as Personal Digital Assistants (PDA) and mobile phones to conduct various e-commerce activities.

Previously, mobile devices or technologies were regarded as a luxury for individuals. However, this situation has changed. The market for mobile technologies has seen significant growth during recent years [14; 15; 16]. Some companies are implementing electronic project such as Sinyi.com, even combine mobile commerce to improve self-competitive. A project of Yungching.com was created to allow salesmen to search data via Personal Digital Assistant (PDA) from 1991. In fact, to improve the performance by implementing innovative technologies is expected, but not appropriate to all companies. Accordingly, this study examines the usage behavior of a sample of users of the new technology of m-commerce using a technology acceptance model (TAM).

Generally, identifying user acceptance of implementation systems to avoid resistance increases the chances of successful implementation. Most of related studies explained the adoption of information technologies, in terms of the technology acceptance model (TAM) [5]. According to [5], TAM uses two external variables, usefulness and ease of use, or beliefs that determine attitude toward use, intention to use, and actual usage. Furthermore, experienced users will choose IT and methods that enable them to complete the task so as to maximize net benefit. In fact, IT that does not offer sufficient advantage will not be used. To improve the predictive value of the original TAM model, an additional behavioral construct, tool experience was incorporated in this study. Additionally, the structural equation model (SEM) is used to verify the causal relationships between variables. Analytical results confirm that TAM appropriate for explaining the use of m-commerce for insurance industry.

II. TECHNOLOGY ACCEPTANCE MODEL (TAM)

The Theory of Reasoned Action (TRA) of [9] and the Technology Acceptance Model (TAM) of [5] provide a theoretical means of measuring beliefs and attitudes for predicting future behavior patterns. The TAM was adapted from the TRA and has provided a basis for previous research on IS dealing with behavioral intentions and usage of IT [6; 10; 12]. Two particular beliefs- perceived usefulness (PU) and perceived ease of use (PEOU), are crucial in the TAM for predicting the acceptance behavior of information technology users. [5] defined PU as "the degree to which individuals believes that using a particular system will enhance their job performance", and defined PEOU as "the degree to which a person believes that using a particular system will be free of effort"). The TAM postulated that computer usage is determined by behavioral intention to use a system, where system usage intention is jointly determined by individual attitude towards using the system and perceptions of its usefulness.

III. PROPOSED MODEL

This study focuses on behaviour intention, and therefore behaviour intention is adopted to measure the decision on whether to use the m-commerce. Based on Fig. 1, this study hypothesizes that tool experience is a pre-determinant of PEOU and indirectly affects PU, attitude, intention to use and actual usage. The model in the dotted frame represents the original TAM. PEOU influences PU; PU and PEOU influence attitude; attitude influences behaviour intention (H3-H7) [5].