A Conceptual Framework for Online Stock Trading Service Adoption

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ABSTRACT

Globalization and recent advancement in the deployment of Internet and related technologies, have significantly transformed all sectors of the modern economy. For instance, electronic service has enabled the application of Internet platform in stock trading, thereby empowering individuals across diverse location to engage in trading activities. As established by extant theories on technology acceptance, individuals are expected to exhibit different attitude and behaviour towards new technology. This study aims to develop a conceptual model, which can explain the antecedents of individual investors' intention to adopt online stock trading service. Specifically, this study identifies three new constructs (trust perception, investors' knowledge and economic value) by integrating theory of planned behavior (TPB) and technology acceptance model (TAM), with perspective from transaction cost theory (TCT).

INTRODUCTION

Technological evolution in the last two decades has greatly impacted business service processes and practices across various sectors of the modern economy (Allameh et al., 2010). Such advancement has transformed the operation of commercial and financial activities, with the wide deployment and growing acceptability of electronic commerce and financial applications. Most business activities and competitive global practices are driven by electronic platforms, which have contributed in enabling cost efficient, faster and innovative development and delivery of products and services (Gopi et al., 2007). Electronic commerce, especially online stock trading service enjoys a top priority in financial and stock brokerage firms’ strategic
goals (Kalakota & Whinston, 1996; Lee, Partridge & Ho, 2002).

Online stock trading service was introduced in 1994, with initial apathy across the globe (Gatigon & Robertson, 1999). According to Internet World Stats (2006) Internet usage in North America appreciated by 110.3% between year 2000 and 2005. During the same period, Europe and Asia recorded a rise of 177.5% and 218.7% respectively. Yet online stock trading accounted for about 30% of the total stock trading transactions executed all over the world (Lee-K & Chung, 2000). According to Allameh et al (2010) apathy of both individual investors and investment institutions to online stock trading is one of the major causes of inconsistency in the growth of online stock trading service. Nevertheless, very little is known about the specific factors that impact investors lack of interest in online stock trading service. Likewise, the implication of the adoption of online stock trading in investors’ trading performance has not yet been empirically validated. Thus, there is need for empirical investigation on the key factors that influence investors’ intention to adopt online stock trading, as well as the implication of the adoption on their trading activities performance.

The sustainability of online trading service is contingent on the attraction and retention of online trader service. Few researchers have examined the various antecedents of online stock trading service; however most have focused on only selected factors, while subsequent attempts have been independent of earlier ones. Therefore, the need to integrate such factors and empirically validate the ensuing model has become imperative. Indeed, online trading service holds tremendous benefit for investors and investment institution, as a result this study will advance understanding on the theoretical model for explaining the adoption of online application in stock trading domain. In doing this, the present study will explicate the specific effect of these factors as well as their interaction effects on online stock trading adoption. For instance, the adoption of online stock trading has been found to be affected by interaction among factors like infrastructures, environmental, and behavioral attributes (Abroud et al., 2010). Specifically, this study aims to advance extant knowledge by developing a conceptual framework, which integrates the effects of the various antecedents for investors’ intention to adopt online stock trading platform.

LITERATURE REVIEW

Extensive research works on stock market have been done in field of financial science and information systems. Scholars have identified the factors that influence the individual’s decision to adopt e-commerce platform for transaction. To this online trading service has been described as more of an information system phenomenon (Gefen et al., 2003a; Kolekofski et al., 2003). Consequently recent studies on online financial trading have employed technology adoption model as their theoretical framework. As Pavlou (2003) noted information technology adoption and usage model has found wide application in the field of electronic finance, which is an integration of technology adoption with finance concepts. Specifically, technology adoption model has been employed in studying the adoption of online financial trading. A review of relevant literatures to the study’s objectives will be presented on technology acceptance theories and models.

This study will critically examine extant literatures on eight (8) influential technology acceptance models as follow: Innovation Diffusion Theory (IDT), Social Cognitive Theory (SCT), Theory of Reasoned Action (TRA), Decomposed Theory of Planned Behavior (DTPB) Technology Acceptance Model (TAM), Technology Acceptance Model 2 (TAM2), the Unified Theory of Acceptance and Use of Technology (UTAUT) and Theory of Planned Behavior (TPB). Table 1 presents a brief discussion on this:

The technology acceptance and behavioral adoption model has been the main theoretical model underpinning extant works, in predicting factors influencing individual’s intention to adopt new technology. Of significance are the Theory of Reasoned Action (TRA)
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