A Cultural Model of Online Banking Adoption:
Long-Term Orientation Perspective

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ABSTRACT

Because the technology acceptance model (TAM) may not be applicable to all cultures, conducting studies from a cultural perspective to support research on the adoption of online banking can contribute to the TAM literature. A research framework based on the extended TAM is developed to examine the effects of efficacy (computer self-efficacy), social status (subjective norms) and belief variables (perceived usefulness and ease of use) on customers' adoption intentions. The effect of the interaction between the cultural value of long-term orientation and the TAM is examined. A voluntary survey involving a total of 376 potential adopters was conducted in an online banking setting in Taiwan. The results confirm previous TAM findings that both efficacy and belief variables have significantly positive direct and indirect effects on adoption, but under the cultural influence of long-term orientation, customers remain hesitant to use online banking because they are more concerned with face-to-face long-term bank relationships to ensure future gratification than with current social status.

KEYWORDS

INTRODUCTION

To penetrate new markets and retain customers using information and communications technology (ICT), banks provide services through the Internet beyond what is offered through brick-and-mortar branches bound by time and geographical restrictions (Banks, 2001; Chuang & Hu, 2012; Proenca, Silva, & Fernandes, 2010). Despite the disputes regarding whether online banking is a competitive weapon or simply a strategic necessity and the continued challenge of scholars attempting to specify the mechanisms linking the online banking use to bank performance, banks recognize the importance of ICT and believe that online banking differentiates their services (Porter, 2001). Many banks have endorsed the use of ICT to develop new information-based services that meet customer needs, improve their image, enhance the content and quality of financial services, and thus improve their competitiveness (Banks, 2001; Callaway, 2011; Chaudhury, Mallick, & Rao, 2001).

Despite the benefits of online banking, its use is controversial because of varying customer perceptions of fund management through branch counters or ATMs (and other electronic devices, such as mobile phones, laptops, and PCs) services, the convenience or inconvenience of banking hours, security risks and privacy issues, technology comprehension issues, and Internet problems. Our primary concern involves the intention of customers to conduct financial transactions on a bank's website, as this capability continues to be a fundamental and important issue in promoting online banking services.

Because of its parsimony and strong validity (Venkatesh & Davis, 2000), the technology acceptance model (TAM) is typically used to examine the adoption of online banking technology. Although the TAM has been criticized for its frequent use, limited predictive power, and triviality (Benbasat & Barki, 2007), many recent studies have used the TAM to investigate users' technology adoption behaviour, particularly in the workplace (e.g., Sipior, Ward, & Connolly, 2011; Venkatesh & Bala, 2008).

Although the TAM can be used in a variety of adoption contexts, prior research indicates that the TAM may not be applicable to all cultures (McCoy, Everard, & Jones, 2005; Wu, 2006). Chinese culture, for example, has often been recognized as differing significantly from Western culture (Ferraro, 2002; Hofstede, 2001). Technology adoption behaviour in the Chinese setting could differ from Western empirical findings for the TAM. It is thus worthwhile to consider cultural issues when studying online banking adoption in the Chinese context of Taiwan.

Because bank services are often rendered through interactions between customers and bank employees, our cultural research on the TAM focuses primarily on the role of interpersonal relationships in influencing online banking adoption. Long-term orientation has been viewed as a key cultural factor for such social interactions (Ryu & Kim, 2010), and such an orientation values future interpersonal relationships (Hofstede, 1991; Shore, 2001). This perspective is used to test the effects on the technology adoption, which includes "subjective norms" and "computer self-efficacy" as antecedents, to confirm the validity of our cultural model of online banking adoption.

Our research objective is to explore how the cultural influence of long-term orientation moderates the effect of the TAM on customers' intention to adopt online banking as they consider the appropriateness, timing, and effectiveness of personal financial services. We contribute to identifying the critical role of long-term social relationships in a new model combining the Western TAM and the Chinese culture of long-term orientation, which has not been thoroughly explored in previous work. This paper is organized as follows. The next section presents the research concept. The research method and data analysis are then presented. Discussions, implications and limitations for both researchers and practitioners are then presented, followed by a discussion of the conclusions of the study.

RESEARCH CONCEPT

Technology Acceptance Model

The TAM is an information systems discipline that models an individual users' technology adoption behaviour (McCoy et al., 2005; Venkatesh & Davis, 2000). Based on Ajzen and Fishbein's (1980) theory of reasoned action (TRA), the TAM finalizes two primary psychological states of individual user perceptions, "usefulness" and "ease of use", which affect individuals' beliefs about and attitudes towards technology and in turn determines their behavioural intentions to adopt that technology (Bagozzi, Davis, & Warshaw, 1992; Davis, 1989, 1993).

In past decades, the TAM has been shown to be a more robust model than TRA in predicting the adoption of different technologies under various contexts in terms of their validity, generality, and wide application (King & He, 2006; Y. Lee, Kozar, & Larsen, 2003; Ojha, Sahu, & Gupta, 2009; Venkatesh & Davis, 2000). To alleviate criticism of limited predictivity, the TAM has been extended to TAM 2 by adding antecedents such as a social influence variable (e.g., subjective norms) to improve the specificity and explanatory utility of the model (Venkatesh & Davis, 2000). These antecedents, which have been tested in both voluntary and mandatory settings, have a strong TAM-supported effect (direct or indirect) on perceived usefulness (Chan & Lu, 2004; Venkatesh & Davis, 2000). However, the literature argues that the social influence antecedent of perceived usefulness may affect perceived ease of use via a crossover effect (Venkatesh & Bala, 2008).

To avoid such an effect, antecedents such as computer self-efficacy (e.g., Yu, Li, & Gangnon, 2009) with respect to perceived ease of use are added and combined with TAM 2 to form TAM 3

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