## Dual-Factor Approach to Consumer Acceptance of Mobile Banking

Donald Amoroso, Auburn University, Montgomery, USA Osam Sato, Tokyo Keizai University, Japan Pajaree Ackaradejruangsri, Ritsumeikan Asia Pacific University, Japan

#### **ABSTRACT**

This study builds on relationship marketing literature and extends existing continuance intention theories by applying dual-factor model to understand the complex behaviors of Japanese consumers and continuance intention of using mobile financial applications, such as mobile banking and/or mobile wallet. The research model, originally developed by Amoroso and Chen, has been adopted and data collected with a sample of 513 Japanese mobile banking app consumers. A predictive structural equation model was derived from the covariance matrix and was produced to analyze the path coefficients. The results show a general support for continuance intention to use mobile banking technologies among Japanese consumers. The results show Japanese consumer satisfaction is found to be a strong predictor of loyalty and continuance intention, directly affected by perceived value, perceived enjoyment, and inertia/habit. While loyalty is found to be a key construct to directly affect continuance intention, a very strong predictor of continuance intention among Japanese mobile banking apps users.

#### **KEYWORDS**

Consumer Satisfaction, Continuance Intention, Dual-Factor Model, Habit, Loyalty, Mobile Banking, Perceived Enjoyment, Perceived Value, Personal Innovativeness, Switching Costs

#### INTRODUCTION

Mobile financial transactions, including mobile banking and mobile wallet applications, that allow customers to transfer money, make payment, and deposit checks online via mobile devices have penetrated both the Japanese and Chinese cultures in the past five years. In 2019 alone, Chinese consumers spent nearly 17 trillion USD through mobile payment platforms, many times much more than many Asian countries combined (CGAP.org, 2019). In China, with its unique culture and market structure, mobile shopping and banking started with a social platform and then moved to a payment facilitator. With this model, Chinese consumers have shown to be the fast adopters of online retail, financial and on-demand devices and services. They were able to go straight from cash to smartphones, skipping the use of credit and debit cards. As Chinese consumers prefer the convenience that the mobile banking apps offers.

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Unlike China however, in Japan, consumer acceptance of mobile wallet and banking services are still at a low level - except for use with train and bus e-tickets using Suica. In 2017, the share of cashless (including mobile) payment was only 20% in private final consumption expenditure, according to ICT Research & Consulting Inc. (2019). However, for the last three years, the diffusion rate of mobile banking in Japan has been improved. "Yano Research Institute expects that the market size of mobile payment will reach 48 million USD by 2023, which is more than 4 times than in the mobile payment market size in 2017" (Morlan, 2019).

Many Japanese shops and consumers still rely on and believe in cash despite the electronic age. "Japan is a cash-based society" (Dornhege, 2020), "cash remains king, defying mobile payments" (Beade, 2019), and business, especially small and medium-sized enterprises, are reluctant to move to mobile payments (Fukumoto, 2019; The Straits Times, 2019; Xincheng, 2019). Morlan (2019) listed three reasons that Japanese consumers do not use mobile payment as (1) cash payments are convenient and reliable, (2) high installment/operation costs prevent stores from adopting cashless mobile payment methods, and (3) Japanese people are fundamentally against the cashless society.

With different stage of technology adoption (while the Japanese consumers are more or less late adopters, the Chinese consumers, in contrast, are the world leader in fast mobile banking adoption), this study focuses on different factors, such as perceived value, perceived enjoyment, personal innovativeness, switching costs and habit that affect Japanese and Chinese consumer satisfaction and loyalty in continuance intention in using mobile financial applications, mobile banking or mobile wallet. Derived from prior studies, a survey was designed, the survey items pretested, and reliability and validity tests were conducted. Data were collected using the snowball sampling technique accessing the respondent's social media. Also, to verify the proposed hypotheses, reliability testing was calculated, correlation, and regression analysis to analyze the relationships.

As a result of expanding existing consumer satisfaction models, this research presents a theoretical model to benefit both the academic and management communities. From a technology perspective, this research helps to understand how specific factors influence the satisfaction with mobile wallet and banking applications, and ultimately what drives consumers' decisions to be loyal, committed, and satisfied. Our model also serves as an important step toward subsequent predictive modeling of Japanese and Chinese consumers' online continuance intention.

Thus, the main research questions are what key dedication-based and constraint-based factors that affect satisfaction, loyalty, and continuous intention of Japanese and Chinese consumers for mobile wallet and banking applications and how Japanese and Chinese consumers behave differently or similarly in an online continuance intention context.

#### LITERATURE REVIEW

In predicting and developing the causal relationship between constructs, this study uses the Dual-Factor Model that examines the dedication-based and constraint-based mechanism collectively to explain post-adoption usage behavior (Kim & Son, 2009). In their model, they purported two mechanisms fundamentally independent from each other - in terms of antecedent, mediator, and outcome. Bendapudi & Berry (1997) proposed that the dedication-based mechanism (want to) measures the desire of continuance of existing relationships. While the constraint-based (have to) mechanism measure the preservation of the relationship or dependence on the relationship partner due to economic, social, and psychological costs. Kim et. al. (2014) found that the dedication-base mechanism has to do with perceived benefits, whatever a consumer may feel appreciation by using the products or services, whereas the constraint-based mechanism is related to "investments" in using services or products.

As proposed by Bendapudi and Berry (1997), the use of the Dual-Factor Model helps to explain consumers' post consumption experiences. The model specifies both the dedication-based and constraint-based factors to explain the consumer loyalty, satisfaction and consequent relationship on

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