

**FACTORS INFLUENCING THE ACCEPTANCE OF MOBILE  
BANKING SERVICES AMONG STUDENTS OF HIGHER  
EDUCATION AT KLANG VALLEY IN MALAYSIA**

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FACTORS INFLUENCING THE ACCEPTANCE OF MOBILE BANKING  
SERVICES AMONG STUDENTS OF HIGHER EDUCATION AT KLANG  
VALLEY IN MALAYSIA

By

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Thesis Submitted to  
Othman Yeop Abdullah Graduate School of Business,  
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## ABSTRACT

The mobile banking in Malaysia is still in its infancy stage and the reason to explain the acceptance as well as the understanding of the actual usage level of mobile banking services still remains unclear. Various models have been developed and proposed to increase the understanding of this issue. The proposed model of Decomposed Theory of Planned Behaviour was empirically evaluated by decomposing the attitude, perceived behavioural control, subjective norm, perceived risk and perceived trust. The decomposition approach adopted by models provide a detailed set of antecedents that could better explain the intention to adopt mobile banking. Data was collected through self administered survey questionnaire from 302 full time students in local public universities in Klang Valley, Malaysia. Structural Equation Modeling is the main statistical technique applied in this study. This study revealed that actual use of mobile banking recorded low level of usage. In particular, the study found that the attitude, perceived behavioural control and perceived trust are found to have a significant effect on the students' intention to use mobile banking except for subjective norm and perceived risk which were partially supported. However, on the antecedent effect of the main belief, the perceived ease of use and perceived security was found to have insignificant result. Overall, the result signifies that the model support a good understanding of the factors that influence the intention to use and actual usage of mobile banking. As expected, the main belief provides more decomposition of the specific factors that influence behaviour. Finally, limitations of the research and recommendations for future research are presented.

**Keywords:** decomposed theory of planned behavior, mobile banking services, acceptance, perceived risk, perceived trust and actual use.

## ABSTRAK

Perbankan mudah alih di Malaysia masih di peringkat awal dan penjelasan terhadap penerimaan serta pemahaman kepada tahap penggunaan sebenar perkhidmatan perbankan mudah alih masih tidak begitu jelas. Pelbagai model telah dibangunkan dan dicadangkan untuk meningkatkan pemahaman terhadap isu berkenaan. Model yang dicadangkan adalah Teori Penguraian Gelagat Terancang yang menilai secara empirikal dengan menguraikan sikap, kawalan gelagat ditanggapi, norma subjektif, risiko ditanggapi dan kepercayaan ditanggapi. Pendekatan penguraian diterima pakai oleh model yang menyediakan satu set terperinci dari latar belakang yang menjelaskan niat dengan lebih baik dalam mengamalkan perbankan mudah alih. Data kajian dikumpulkan melalui tinjauan soal selidik tadbir sendiri terhadap 302 orang pelajar sepenuh masa di universiti awam tempatan di Lembah Klang, Malaysia. Persamaan Permodelan Struktur adalah teknik statistik utama yang digunakan dalam kajian ini. Kajian ini mendedahkan bahawa penggunaan sebenar perbankan mudah alih mencatatkan tahap penggunaan yang rendah. Khususnya, kajian mendapati bahawa sikap, kawalan gelagat ditanggapi, dan kepercayaan ditanggapi mempunyai kesan yang signifikan ke atas niat pelajar untuk menggunakan perbankan mudah alih kecuali norma subjektif dan risiko ditanggapi yang disokong secara sebahagian. Walau bagaimanapun, kesan latar belakang kepada kepercayaan utama, kemudahan penggunaan ditanggapi dan keselamatan ditanggapi didapati mempunyai kesan yang tidak ketara. Secara keseluruhannya, dapatan kajian menunjukkan bahawa model yang digunakan membantu pemahaman yang baik tentang faktor-faktor yang mempengaruhi niat untuk menggunakan dan penggunaan sebenar perbankan mudah alih. Seperti yang dijangka, kepercayaan utama menyediakan lebih penguraian tentang faktor-faktor khusus yang mempengaruhi tingkah laku. Akhir sekali, batasan kajian dan cadangan untuk penyelidikan lanjut turut dibincangkan.

**Kata kunci:** teori penguraian gelagat terancang, perkhidmatan perbankan mudah alih, penerimaan risiko ditanggapi, penerimaan kepercayaan ditanggapi, penggunaan sebenar.

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## LIST OF ABBREVIATIONS

AMOS	: Analysis of Moment Structures
ANOVA	: Analysis of Variance
AVE	: Average Variance Extracted
BTOS	: Bartlett Test of Sphericity
B2C	: Business to Consumer
CFA	: Confirmatory Factor Analysis
CFI	: Comparative Fit Index
CR	: Critical Ratio
DF (df)	: Degree of Freedom
DTPB	: Decomposed Theory of Planned Behavior
EFA	: Exploratory Factor Analysis
GFI	: Goodness of Fit Index
GOF	: Goodness of Fit
ICT	: Information Communication Technology
IDI	: ICT Development Index
IDT	: Innovation Diffusion Theory
IS	: Information System
IT	: Information Technology
ITU	: International Telecommunication Union
KMO	: Kaiser-Meyer-Olkin
MCMC	: Malaysian Communications and Multimedia Commission
MSA	: Measure of Sampling Adequacy
MI	: Modification Index
MSE	: Mobile Self-Efficacy

NFI	: Normed Fit Index
PBC	: Perceived Behavioral Control
PCA	: Principal Component Analysis
PEOU	: Perceived Ease of Use
RMSEA	: Root Mean-square Error of Approximation
SEM	: Structural Equation Modeling
SMC	: Squared Multiple Correlation
SPSS	: Statistical Package for the Social Sciences
TAM	: Technology Acceptance Model
TB	: Trusting Beliefs
TI	: Trusting Intention
TLI	: Tucker-Lewis Index
TPB	: Theory of Planned Behavior
TRA	: Theory of Reasoned Action
UIA	: Universiti Islam Antarabangsa
UPM	: Universiti Putra Malaysia
UKM	: Universiti Kebangsaan Malaysia
UM	: Universiti Malaya
VIF	: Variance Inflation Factor
WAP	: Wireless Application Protocol

# CHAPTER 1

## INTRODUCTION

### 1.1 Background

Mobile banking is defined as provisions and specific banking and financial services with the supports by mobile telecommunication devices. The scope of services offered include carrying out bank transactions including to administer accounts and to get specific information. One of the academic conceptual models (as seen in Table 1.1) for mobile banking consists of three interrelated concepts which are mobile accounting, mobile brokerage, and mobile financial information services. Mobile banking is a new strategy for banks to enhance their latest technology in a new dynamic marketing environment. With the technology, bank will facilitate their online transactions and information (Aboelmaged & Gebba, 2013). In the meantime, technological advances in the field of information technology and telecommunications has continued to transform the banking industry (Al-Jabri & Sohail, 2012). According to Ensor and Wannemacher (2012), there are advantages and opportunities to the bank clients when using mobile banking transactions such as funds transfer and checking of account balance anywhere at any time. According to Devlin and Devlin (2006), customers only need a lesser time to conduct their banking activities such as visiting a bank and also want a high expectation in term of comfort and accessibility.

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