

**MOBILE INFORMATION SYSTEMS:
AN EMPIRICAL ANALYSIS OF THE DETERMINANTS OF
MOBILE COMMERCE ACCEPTANCE IN JORDAN**

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Abstrak

Perdagangan mudah alih telah digunakan dan dikaji secara meluas di negara-negara maju, namun penggunaannya di negara-negara Timur Tengah masih di tahap yang rendah. Malah, di Jordan, walaupun kadar penembusan pelanggan telefon mudah alih agak tinggi pada tahun 2009, penyelidikan empirikal berkaitan dengan perdagangan mudah alih ini adalah terhad. Oleh itu, penyelidikan kuantitatif ini bertujuan untuk mengkaji secara empirikal tentang penentu kepada penerimaan perdagangan mudah alih dalam budaya kelompok yang terdapat di Jordan di mana norma-norma sosial adalah dihargai sementara tindakan individunya dipengaruhi oleh kumpulan rujukan yang dominan. Model Penerimaan Teknologi (TAM) telah diperluaskan dengan mengambilkira empat faktor iaitu (keadaan/suasana yang membantu, kos, inovasi peribadi dalam teknologi maklumat (PIIT) dan norma subjektif). Untuk memahami norma subjektif dalam budaya kelompok ini, ianya telah dipecahkan kepada beberapa tahap yang berbeza iaitu injuksi peribadi dan masyarakat dan norma deskriptif. Rangka kerja kajian ini terdiri daripada dua belas pemboleh ubah pendam (lapan eksogen dan lima endogen). Pengumpulan data dilakukan melalui penggunaan kajiselidik-kendiri yang mengandungi 40 item berskala Likert 7-mata. Daripada 500 sampel, 448 maklumbalas (89.6%) berjaya dikumpulkan dan hanya 401 boleh digunakan. Pemodelan persamaan berstruktur telah digunakan untuk menganalisis data. Hasil kajian ini menunjukkan bahawa keadaan/suasana yang membantu, kos, PIIT, sikap dan tanggapan kegunaan adalah penentu penting ke atas niat tingkah laku di Jordan. Di samping itu, norma subjektif, keadaan/suasana yang membantu, kos dan tanggapan kegunaan adalah anteseden yang signifikan ke atas sikap yang akhirnya akan mempengaruhi niat tingkah laku. Selain itu, bukti empirikal juga menunjukkan bahawa norma peribadi injuksi, norma deskriptif peribadi dan norma injuksi kemasyarakatan adalah anteseden bagi norma-norma subjektif. Sebagai kesimpulannya, kajian ini membuktikan bahawa TAM lanjutan berjaya memperkayakan model dan meningkatkan kuasa penerokaan kepada 53% dalam menerangkan varian niat tingkah laku.

Kata Kunci: Niat perlakuan, M-dagang, Norma Subjektif

Abstract

Although mobile commerce have been used and widely researched in developed nations, there is a low usage in the Arab world. Also, there is a limited empirical research on mobile commerce in Jordan despite the high penetration of mobile phone subscribers in 2009. Among the aims of this quantitative research is to empirically investigate the determinants of mobile commerce adoption in a collectivist culture such as Jordan where social norms are valued and individual actions are influenced greatly by important reference groups. The Technology Acceptance Model (TAM) is extended to include four factors (facilitating conditions, cost, personal innovativeness in IT (PIIT) and subjective norms). Furthermore, in order to understand subjective norms in collectivist culture; subjective norms were decomposed into different levels (personal and societal injunctive and descriptive norms). The research framework consists of twelve latent variables (seven exogenous and five endogenous). Using self-administered survey, 40 items with 7-point Likert scale is used to collect data. Out of the 500 samples, 448 responses (89.6 % response rate) were collected; eventually 401 responses were usable. Structural Equation Modeling is applied to analyze the data. The findings of this study revealed that facilitating conditions, cost, PIIT, attitude and perceived usefulness are significant determinants of behavioral intention in Jordan. In addition, subjective norms, facilitating conditions, cost and perceived ease of use are significant antecedents of attitude which in turn influencing behavioral intention. Moreover, the empirical evidence indicated that personal injunctive norm, personal descriptive norm and societal injunctive norm are indeed antecedents of subjective norms. It can be concluded that extended TAM successfully enriched the model and increased the exploratory power to 53 % in explaining behavioral intention variance.

Keywords: Behavioral intention, M-commerce, Subjective norms

Publications Related To This Research

1. Ghassan Alnajjar, M. Mahmuddin, T. Ramayah (2011). Adoption Factors of M-commerce in Jordan: From Personal and Societal Norms Perspectives. 3rd IEEE International Conference on Information management and engineering-IEEE ICIME 2011, Zhengzhou, China, May 21-22, 2011, Pages 52-55.
2. Ghassan Alnajjar, M. Mahmuddin, T. Ramayah. A Conceptual Model of Mobile Commerce Acceptance in Collectivist Cultures. International Conference on Innovation, Management and Technology Research, Malacca, Malaysia, May 21-22, 2012 .
3. Ghassan Alnajjar, M. Mahmuddin, T. Ramayah, Ahmad Najjar (2012). Determinants of M-commerce Acceptance in Jordan: An Empirical Analysis. International Journal of Mobile Communications (Under Review).

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List of Abbreviations

AT	Attitude
AVE	Average Variance Extracted
BDT	Behavioral Decision Theory
BI	Behavioral Intention
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
DTPB	Decomposed Theory of Planned Behavior
DV	Dependent Variable
EFA	Explanatory Factor Analysis
FC	Facilitating Conditions
GFI	Goodness of Fit Index
GSM	Global System for Mobile Communications
ICT	Information and Communication Technology
IDT	Innovation Diffusion Theory
IFI	Incremental Fit Index
IS	Information System
IT	Information Technology
ITU	International Telecommunication Union
IV	Independent Variable
MIS	Management Information Systems
PCLOSE	Closeness of Fit
PDN	Personal Descriptive Norm
PEOU	Perceived Ease of Use
PIIT	Personal Innovativeness in IT
PIN	Personal Injunctive Norm
PU	Perceived Usefulness
RMSEA	Root Mean Square Error of Approximation
SDN	Societal Descriptive Norm
SEM	Structural Equation Modeling
SIN	Societal Injunctive Norm
SN	Subjective Norms
TAM	Technology Acceptance Model
TAM2	Technology Acceptance Model 2
TAM3	Technology Acceptance Model 3
TLI	Tucker Lewis Index
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
UTAUT	Unified Theory of Acceptance and Use of Technology
VIF	Variance Inflation Factor

CHAPTER ONE

INTRODUCTION

This chapter covers the main topics in this research; it begins with a brief background of m-commerce, motivations of the study, the research problem statement, questions, objectives, scope, significance of the research, research limitations and research contributions. It concludes with an overview of the content of this thesis.

1.1 Background

Nowadays, mobile phone users have the capability to conduct transactions, services, access information and buy goods anytime and anywhere. The rapid growths of mobile telecommunication and mobile-internet have made mobile commerce (hereafter referred to m-commerce) popular with businesses as well with individuals. M-commerce refers to direct or indirect transactions over wireless telecommunication by using mobile devices such as mobile phones or personal digital assistants (Wu & Wang, 2005).

Others have defined mobile business as new “experiences of social interaction” with the utilize of wireless and mobile telecommunication technologies (Mylonopoulos, Doukidis, & Editors, 2003). With the sharp growth of the mobile phone subscribers

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