

**POTENTIAL GROWTH OPPORTUNITIES FOR
SMS BASED UTILITY PAYMENTS AND BANKING
SERVICES IN SRI LANKAN CONTEXT**

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POTENTIAL GROWTH OPPORTUNITIES FOR SMS BASED UTILITY PAYMENTS AND BANKING SERVICES IN SRI LANKAN CONTEXT

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The Dissertation was submitted to the Department of Computer Science & Engineering of the University of Moratuwa in partial fulfillment of the requirement for the Degree of Master of Business Administration.

Department of Computer Science & Engineering

University of Moratuwa

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DECLARATION

“I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university to the best of my knowledge and belief and it does not contain any material previously published, written or orally communicated by another person or myself except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations”

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Supervisor – Dr. Chathura De Silva

ABSTRACT

Mobile phone has started to touch the hearts of millions of Sri Lankans while Internet is still not accessible for many of them. Therefore if people can save money and time by conveniently carrying out banking and utility payments transactions through the mobile phone from where they are, it should obviously hit the society with lot of socio-economic benefits.

But the reality is that the strength of the SMS based payments has not been exploited to its full potential in Sri Lanka though it is experimented by many banks and mobile operators in the country. The main objective of this research was to investigate the influential factors that have led these services to be unpopular among Sri Lankans. A model, which can be used to promote these services in the country, was produced at the end of the research.

Global research findings on mobile and SMS based banking and payments, identified through the literature were discussed. A qualitative study was carried out to identify the influential factors pertaining to mobile and banking industry. User perspectives were identified through a questionnaire based survey conducted with a selected sample of mobile subscribers banking with four leading banks in Sri Lanka.

Data gathered from the consumer survey were statistically analyzed through linear regression analysis and simple correlation analysis. It was concluded that there is a significant relationship between the SMS based payment services usage and the influential factors such as awareness, security confidence, service reliability and the SMS usage intensity of the mobile subscribers. However, there was no significant linear relationship between services usage and easy usability of the services. It was also concluded that SMS based banking and payments services offered by the mobile operators and banks in Sri Lanka, are not aligned with the business strategies of the respective organisations.

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ABBREVIATIONS

ARPU	– Average Revenue Per User
ATM	– Automatic Teller Machine
BOISL	– Board of Investment Sri Lanka
BTS	– Base Transceiver Station
CBSL	– Central Bank of Sri Lanka
CDMA	– Code Division Multiple Access
GDP	– Gross Domestic Products
GSM	– Global System for Mobile Communications
HNB	– Hatton National Bank
HSBC	– Hongkong and Shanghai Banking Corporation
ISP	– Internet Service Provider
ITU	– International Telecom Union
IVR	– Interactive Voice Response
LAN	– Local are Network
LCB	– Licensed Commercial Banks
MSC	– Mobile Switching Center
NDB	– National Development Bank
NFC	– Near Field Communication
NTB	– Nations Trust Bank
OTA	– Over the Air
PDA	– Personal Digital Assistant
PIN	– Personal Identification Number
SIM	– Subscriber Identification Module
SMS	– Short Messaging Service
SMSC	– Short Message Service Center
SWIFT	– Society for Worldwide Inter-bank Financial Telecommunication
TRCSL	– Telecommunication Regulatory Commission of Sri Lanka
VPN	– Virtual Private Network
WAN	– Wide Area Network
WAP	– Wireless Application Protocol