

**MOBILE PHONE TECHNOLOGY
APPLICATIONS IN THE CONSTRUCTION
PROJECT MANAGEMENT SECTOR
IN SRI LANKA**

**MASTER OF SCIENCE
IN
CONSTRUCTION PROJECT MANAGEMENT**

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Department of Civil Engineering

University of Moratuwa

October 2022

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APPLICATIONS IN THE CONSTRUCTION
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IN SRI LANKA**

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“This dissertation was submitted to the Department of Civil Engineering of the University of Moratuwa in partial fulfillment of the requirements for the Master of Science in Construction Project Management”

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October 2022

Declaration

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university to the best of my knowledge and believe 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 inter-library loans, and for the title and summary to be available to outside organizations.

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The above particulars are correct, to the best of my knowledge.

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Abstract

Managing resources effectively in all fields including Construction and Project management industry is essential for the development of the country. Many countries have tended to adopt modern technologies such as mobile phone technology to succeed in their projects. Various mobile phone apps designed for the Construction and Project management sectors are freely available. It was observed that many foreign researchers have broadened their study area into applications of mobile phone technology in the construction and project management sector while local researchers are lagging. Therefore, this study attempted to review the awareness and usage of mobile phone applications designed for the construction and project management sector and to identify the pros and cons of using mobile phone apps.

Both primary and secondary data were collected. A comprehensive literature review was carried out to identify the research gap as well as to select an appropriate methodology. The primary survey consisted of a questionnaire survey and structured interviews. The targeted group for the study was professionals involved in the Construction and Project management sector.

Out of the responses received 100 fully answered survey data was converted into a coded format for analysis. The data analysis was performed using data analysis tools available in excel.

According to the data analysis, it was found that respondents are not much aware of apps related to Construction Project Management but they use those apps unknowingly. Also, it was observed that respondents are not aware of the usefulness of those apps for their profession. Documenting apps were observed as the most popular app category among respondents. The second and third popular types of apps were drawing apps and Estimation apps. Usage of other types of apps was very low. However, it was found that few respondents are using different types of apps at the same time.

It was justified that, mobile phone apps help to make work more effective, time-saving, user-friendly. Also, the mobile phone is convenient to use from any location, convenient to connect to the internet, and memory capacity is satisfactory.

This study attempted to expand the study on beneficial ways of using mobile phones in the Construction Project Management sector. The findings of this study can be used as a baseline study for further studies relevant to this research area.

Keywords: *Mobile phones, apps/applications, Construction Project management sector/industry, Technology/ies*

Dedication

*“This dissertation report is dedicated to my beloved parents,
my husband, daughter, two brothers,
my teachers, relations, and colleagues
for their endless support and encouragement
given throughout my life
in every success and loss.”*

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Abbreviations

App	Application/s
CPM	Construction and Project Management
DWG	Drawing
G	Generation
GDP	Gross Domestic Products
GIS	Geographic Information System
GPS	Global Positioning System
ICRD	International Centre for Research and Development
OS	Operating System
QS	Quantity Surveyor
RAM	Random Access Memory
RF	Reinforced concrete
SL	Sri Lanka
SIM	Subscriber Identification Module
TRCSL	Telecommunication Regulatory Commission Sri Lanka
US	United States
USA	United State of America
USB	Universal Serial Bus
USD	United State Dollars
3D	Three Dimensional

List of Annexures

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- Annexure 2 - Table of Coded Responds received