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Phailane, Vusi

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BUQS7027A Research Report

Utilisation of Smartphone Apps for Business by Grade 1-4 Emerging Construction Contractors



Submitted by: Vusi Phailane

Student Number: 0210691P

Supervisor: Professor David Root

A research report submitted to the Faculty of Engineering and the Built Environment, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Science in Building.

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Declaration

I declare that this Research Report (course code BUQS 7027A) is my own, unaided work. It is submitted in partial fulfilment of the degree of Master of Science in Building (MSc) in the field of Project Management in Construction at the University of the Witwatersrand, Johannesburg.

It has not been submitted before for any degree or examination in any other university.

Signature of Candidate:



Date: 25 July 2021

Name of Student: Vusi James Phailane (0210691P)

Abstract

Smartphone apps have brought about a paradigm shift to modern society; a fundamental change from adopting traditional mainstream technologies to utilizing apps for business rather than relying on desktop computers, laptops, tablets, and other devices.

The purpose of this research report is to explore the apps utilized by contracting businesses in South Africa. The main objective of the research report is firstly, to identify the various popular apps available for business usage. Secondly, assess the extent of use and how widespread particular apps are utilized and for what purpose. Lastly, assess the adoption trend of apps for business operations amongst emerging contractors and understand the adoption trend.

The empirical research collects data from telephone interviews with 89 contractors in Gauteng with CIDB Grading of 1-4 GB, randomly selected from the Central Supply Database of Government (CSD). The qualitative data was transcribed and analyzed through a thematic narrative approach; quantitative data was analyzed using a Pearson's product moment correlation coefficient assessing the strength of relationships between pairs of variables.

The research report argues that there is a trend towards adopting apps by contractors in the business environment and the respondents similarly reported a substantial shift from utilizing the desktop computers, and laptops to using smartphone devices for business. Key findings reveal that utilization of apps is correlated to educational background, financial capability, and CIDB grading. Other factors impacting adoption include the age of respondents, the company profile, the company's years of existence, and the number of employees in the company.

Further findings show that firms with higher CIDB grading and better financial resources still prefer, and rely on, desktop computers and laptops and less on smartphone devices. In contrast, respondents with limited financial resources fully embraced the trend and utilize apps for business purposes. Notably, specialist construction apps are not utilized by the respondents for business; instead, reliance is on generic chat and instant messaging apps for communication compared to traditional voice messages and email. Findings reveal that the utilisation of WhatsApp outweighs the decreasing traditional voice calls and SMS. Recommendation for further quantitative research to be conducted to measure the extent of the perceived improvement to the firm profitability and performance utilizing apps for business.

Keywords: apps, business, contractor, construction, communication