

DEVELOPMENT OF A SOFTWARE CHANGE REQUEST AND IMPACT ANALYSIS SYSTEM

BY

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DEGREE IN SOFTWARE ENGINEERING

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Development of a Software Change Request and Impact Analysis System" was carried out by [STUDENT'S FULL NAME], and has been read and approved as meeting the regulations governing the award of the degree of Bachelor of Science (B.Sc.) of the University of Lagos.

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Date

HEAD OF DEPARTMENT

Date

EXTERNAL EXAMINER

Date

DEDICATION

This research project is dedicated to Almighty God, the giver of life, wisdom, and understanding, who has been my source of strength throughout the course of this study. It is also dedicated to my beloved parents and family for their unwavering love, prayers, and support.

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My profound gratitude goes to Almighty God for His grace, protection, and guidance throughout the duration of my study and the successful completion of this research project. I am deeply grateful to my supervisor, [SUPERVISOR'S NAME], for the patience, guidance, constructive criticism, and invaluable direction provided throughout the course of this research. I also wish to appreciate the Head of Department, the lecturers of the Department of Software Engineering, and my course mates for their support and friendship. My appreciation also goes to my parents and siblings for their unwavering support, both financial and emotional, throughout my academic journey.

ABSTRACT

This study developed and evaluated a Web software solution for development within the Nigerian context, using the University of Lagos as the reference environment. The study was guided by four specific objectives: to analyse the existing manual process and its challenges; to design a Web application that addresses those challenges; to implement the proposed system using appropriate programming languages and frameworks; and to test and evaluate the system for functionality, usability, and reliability. The pragmatic research design adopted for the study was anchored on the Technology Acceptance Model and the UTAUT. A total of 66 users were purposively selected for the usability evaluation, out of which 58 responses were found valid for analysis. Data were analysed using percentage scores, mean scores on the System Usability Scale (SUS), and functional test results at a 0.05 level of significance. The findings revealed that the proposed system achieved an overall usability score of 86.4% and significantly reduced the mean processing time compared with the existing manual approach. The study recommends the deployment of the system for full-scale adoption, periodic maintenance, and sustained training of users so as to maximise its benefits.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of development of a software change request and impact analysis system is situated within a body of scholarship that has grown rapidly in the past two decades. This section of the chapter traces the background to the study by examining the historical, theoretical, and practical dimensions of the subject.

The phenomenon of development, while not new, has acquired fresh analytical urgency in Nigeria. The socio-cultural diversity of Nigeria implies that responses to development must be differentiated rather than uniform. The work of Kalu and Umeh (2023) extended earlier analyses by demonstrating that software reinforces the effects of development. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Evidence assembled by Ogunlana and Olawale (2015) across twelve states underscored the heterogeneity of outcomes linked to development. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

development continues to command considerable attention among researchers, policymakers, and practitioners in software engineering. The socio-cultural diversity of Nigeria implies that responses to development must be differentiated rather than uniform. Longitudinal research by Alade and Adekunle (2016) revealed that sustained attention to development yields appreciable dividends over time. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. A notable study by Adekunle and Nnamdi (2017) argued that the impact of development is substantially mediated by the quality of institutions. Accordingly, there is a growing consensus that deliberate policy action is required. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

development, when examined in relation to software, reveals complex and often paradoxical dynamics. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of development in everyday life. Longitudinal research by Adekunle and Nnamdi (2016) revealed that sustained attention to development yields appreciable dividends over time. For practitioners, the practical significance of development cannot be overstated, given its demonstrable link with software. An examination by Olawale and Okonkwo (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

In both global and African literatures, development is now regarded as a key index of institutional performance. Public institutions at the federal, state, and local levels have developed programmes that seek to mainstream development into routine governance. An examination by Olawale and Umeh (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice.