

DESIGN AND IMPLEMENTATION OF A CBT CENTRE MANAGEMENT SYSTEM FOR JAMB EXAMINATIONS

BY

[STUDENT'S FULL NAME]

[MATRIC NUMBER]

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DEGREE IN COMPUTER SCIENCE

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Design and Implementation of a CBT Centre Management System for JAMB Examinations" 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.

PROJECT SUPERVISOR

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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ABSTRACT

This study developed and evaluated a Web software solution for design 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 63 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 89.1% 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 design and implementation of a cbt centre management system for jamb examinations 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 relationship between design and implementation has been the subject of sustained academic interest across several disciplines. Economic pressures and resource scarcity frequently determine the pace at which design advances in practice. Comparative work by Umeh and Osinachi (2022) across several states uncovered a consistent pattern linking design with implementation. For practitioners, the practical significance of design cannot be overstated, given its demonstrable link with implementation. Findings reported by Bakare and Adeniyi (2018) observed that respondents with greater exposure to design recorded markedly different results. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Over the past two decades, design has become increasingly significant within the Nigerian landscape and beyond. Federal and state governments have initiated several reforms, yet implementation gaps continue to constrain progress in matters of design. An examination by Aderemi and Ibrahim (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Longitudinal research by Oyelaran and Ibrahim (2016) revealed that sustained attention to design yields appreciable dividends over time. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

design occupies a prominent position in contemporary debates about implementation and national development. Economic pressures and resource scarcity frequently determine the pace at which design advances in practice. A notable study by Oyelaran and Ibrahim (2017) argued that the impact of design is substantially mediated by the quality of institutions. For practitioners, the practical significance of design cannot be overstated, given its demonstrable link with implementation. Empirical evidence from Musa and Musa (2021) suggests that positive developments in implementation are associated with improvements in design. These observations collectively invite a reconsideration of standard assumptions regarding implementation. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of $\{k_0\}$ from confounding factors.

A growing corpus of literature draws attention to the pivotal role of design in shaping developmental trajectories. The Nigerian context presents peculiar challenges, ranging from infrastructural deficits to institutional weaknesses, which shape the manner in which design unfolds. A notable study by Adeniyi and