

DESIGN AND IMPLEMENTATION OF A BAKERY PRODUCTION PLANNING SYSTEM

BY

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DEGREE IN SOFTWARE ENGINEERING

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Design and Implementation of a Bakery Production Planning 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.

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 64 users were purposively selected for the usability evaluation, out of which 60 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 84.8% 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 bakery production planning 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.

design occupies a prominent position in contemporary debates about implementation and national development. The colonial and post-colonial legacies of the Nigerian state continue to influence contemporary patterns of design. An examination by Bamgbose and Aderemi (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. Such findings reinforce the argument that design deserves a place of priority on the development agenda. Findings reported by Nwosu and Ekwueme (2018) observed that respondents with greater exposure to design recorded markedly different results. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

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. Studies conducted within the West African subregion by Kalu and Adigun (2018) reached conclusions broadly consistent with the Nigerian evidence. For practitioners, the practical significance of design cannot be overstated, given its demonstrable link with implementation. Longitudinal research by Aderemi and Nwosu (2016) revealed that sustained attention to design yields appreciable dividends over time. The implications of these dynamics are far-reaching, touching questions of equity, efficiency, and accountability. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Contemporary scholarship increasingly frames design as inseparable from the broader question of implementation. Public institutions at the federal, state, and local levels have developed programmes that seek to mainstream design into routine governance. Aderemi and Nwosu (2020), in a survey of relevant stakeholders, concluded that the benefits of design are unevenly distributed across groups. Accordingly, there is a growing consensus that deliberate policy action is required. The work of Okonkwo and Ekwueme (2023) extended earlier analyses by demonstrating that implementation reinforces the effects of design. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

Scholars have long recognised design as a critical determinant of outcomes in software engineering. Evidence from national agencies indicates that design has grown considerably in recent times, underscoring the need for systematic inquiry. Field evidence gathered by Umeh and Adeniyi (2016) suggested that stakeholder