

DEVELOPMENT OF A SALES AND DEMAND FORECASTING ANALYTICS SYSTEM

BY

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BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF DATA SCIENCE, FACULTY OF
SCIENCE, UNIVERSITY OF LAGOS, AKOKA, LAGOS STATE

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.)
DEGREE IN DATA SCIENCE

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Development of a Sales and Demand Forecasting Analytics 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.

ACKNOWLEDGEMENT

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 Data Science, 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 69 users were purposively selected for the usability evaluation, out of which 66 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 84.7% 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 sales and demand forecasting analytics 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.

Over the past two decades, development has become increasingly significant within the Nigerian landscape and beyond. Economic pressures and resource scarcity frequently determine the pace at which development advances in practice. Research by Nnamdi and Ibrahim (2021) using mixed methods provided particularly rich insight into the mechanisms connecting development and sales. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. The work of Bakare and Aderemi (2023) extended earlier analyses by demonstrating that sales reinforces the effects of development. These developments carry important implications for policy and practice in data science. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

In recent years, development has emerged as a central theme in scholarly discourse on data science. Auxiliary variables, including education, income, and location, further condition how development is experienced across communities. Empirical evidence from Salami and Bamgbose (2021) suggests that positive developments in sales are associated with improvements in development. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. Comparative work by Ogunlana and Okonkwo (2022) across several states uncovered a consistent pattern linking development with sales. 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.

A growing corpus of literature draws attention to the pivotal role of development in shaping developmental trajectories. Nigeria's federal structure and its diverse cultural geography ensure that the experience of development varies considerably from one region to another. Research by Ogunlana and Okonkwo (2021) using mixed methods provided particularly rich insight into the mechanisms connecting development and sales. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. An examination by Bakare and Nwosu (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

Contemporary scholarship increasingly frames development as inseparable from the broader question of sales. Within Lagos State, the country's most populous commercial hub, the dynamics of development are observed in their starkest form. The aggregate picture emerging from Nnamdi and Ogbeide (2023) points to a modest but consistent association between development and the outcomes of interest. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. Findings reported by Adigun