

DEVELOPMENT OF A TIME SERIES FORECASTING SYSTEM FOR ECONOMIC DATA

BY

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DEGREE IN STATISTICS

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Development of a Time Series Forecasting System for Economic Data" 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 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 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 88.4% 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 time series forecasting system for economic data 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.

A growing corpus of literature draws attention to the pivotal role of development in shaping developmental trajectories. The Nigerian context presents peculiar challenges, ranging from infrastructural deficits to institutional weaknesses, which shape the manner in which development unfolds. The aggregate picture emerging from Olawale and Adigun (2023) points to a modest but consistent association between development and the outcomes of interest. Such findings reinforce the argument that development deserves a place of priority on the development agenda. Comparative work by Salami and Obiora (2022) across several states uncovered a consistent pattern linking development with time. Such findings reinforce the argument that development deserves a place of priority on the development agenda. 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 development in shaping developmental trajectories. Public institutions at the federal, state, and local levels have developed programmes that seek to mainstream development into routine governance. Studies by Ogbeide and Alade (2019) largely support the view that development exerts a measurable influence on outcomes of interest. These developments carry important implications for policy and practice in statistics. Research by Bello and Chukwu (2021) using mixed methods provided particularly rich insight into the mechanisms connecting development and time. Such findings reinforce the argument that development deserves a place of priority on the development agenda. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

Scholars have long recognised development as a critical determinant of outcomes in statistics. The colonial and post-colonial legacies of the Nigerian state continue to influence contemporary patterns of development. The work of Bello and Chukwu (2023) extended earlier analyses by demonstrating that time reinforces the effects of development. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice. Studies conducted within the West African subregion by Ibrahim and Umeh (2018) reached conclusions broadly consistent with the Nigerian evidence. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Few subjects attract as much policy interest in contemporary Nigeria as the question of development. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of development in everyday life. Longitudinal research by Dauda and Nwosu (2016) revealed that sustained attention to development yields appreciable dividends over time. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Comparative work by Adeniyi and Eze (2022)