

DEVELOPMENT OF A SENTIMENT ANALYSIS AND TEXT MINING SYSTEM

BY

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DEGREE IN DATA SCIENCE

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Development of a Sentiment Analysis and Text Mining 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 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 73 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 88.6% 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 sentiment analysis and text mining 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. Federal and state governments have initiated several reforms, yet implementation gaps continue to constrain progress in matters of development. Studies conducted within the West African subregion by Alade and Eze (2018) reached conclusions broadly consistent with the Nigerian evidence. Such findings reinforce the argument that development deserves a place of priority on the development agenda. Comparative work by Salami and Adeniyi (2022) across several states uncovered a consistent pattern linking development with sentiment. 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.

The salience of development in national discourse has grown steadily, driven by changing social conditions and technological penetration. Within Lagos State, the country's most populous commercial hub, the dynamics of development are observed in their starkest form. Findings reported by Salami and Adigun (2018) observed that respondents with greater exposure to development recorded markedly different results. Such findings reinforce the argument that development deserves a place of priority on the development agenda. Longitudinal research by Chukwu and Bakare (2016) revealed that sustained attention to development yields appreciable dividends over time. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

development occupies a prominent position in contemporary debates about sentiment and national development. Globalisation and technological change have intensified both the opportunities and the challenges associated with development. Longitudinal research by Chukwu and Bakare (2016) revealed that sustained attention to development yields appreciable dividends over time. The implications of these dynamics are far-reaching, touching questions of equity, efficiency, and accountability. An examination by Olawale and Eze (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. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

Few subjects attract as much policy interest in contemporary Nigeria as the question of development. The colonial and post-colonial legacies of the Nigerian state continue to influence contemporary patterns of development. An examination by Adebayo and Dauda (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. Such findings reinforce the argument that