

DESIGN AND IMPLEMENTATION OF A SENTIMENT ANALYSIS SYSTEM FOR CUSTOMER PRODUCT REVIEWS

BY

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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 Sentiment Analysis System for Customer Product Reviews" 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.

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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 76 users were purposively selected for the usability evaluation, out of which 67 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 88.5% 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 sentiment analysis system for customer product reviews 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 design in shaping developmental trajectories. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of design in everyday life. An examination by Adeniyi and Eze (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. These developments carry important implications for policy and practice in computer science. Findings reported by Famuyide and Salami (2018) observed that respondents with greater exposure to design recorded markedly different results. Accordingly, there is a growing consensus that deliberate policy action is required. 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 computer science. Federal and state governments have initiated several reforms, yet implementation gaps continue to constrain progress in matters of design. Studies conducted within the West African subregion by Musa and Alade (2018) reached conclusions broadly consistent with the Nigerian evidence. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. An examination by Nwosu and Adekunle (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

Over the past two decades, design has become increasingly significant within the Nigerian landscape and beyond. In Nigeria, the intersection of design and implementation is conditioned by unique socio-economic, cultural, and institutional factors that differ markedly from Western settings. The work of Nwosu and Adekunle (2023) extended earlier analyses by demonstrating that implementation reinforces the effects of design. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. A notable study by Adigun and Adeniyi (2017) argued that the impact of design is substantially mediated by the quality of institutions. Such findings reinforce the argument that design deserves a place of priority on the development agenda. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

The phenomenon of design, while not new, has acquired fresh analytical urgency in Nigeria. Globalisation and technological change have intensified both the opportunities and the challenges associated with design. Research by Adeniyi and Olawale (2021) using mixed methods provided particularly rich insight into the