

DEVELOPMENT OF A GENERATOR SERVICING AND MAINTENANCE LOG SYSTEM

BY

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[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Development of a Generator Servicing and Maintenance Log 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 Thermodynamics Laws and the Tribology Theory. A total of 64 users were purposively selected for the usability evaluation, out of which 54 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 80.5% 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 development of a generator servicing and maintenance log 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.

The relationship between development and generator has been the subject of sustained academic interest across several disciplines. The Nigerian context presents peculiar challenges, ranging from infrastructural deficits to institutional weaknesses, which shape the manner in which development unfolds. The work of Okonkwo and Ibrahim (2023) extended earlier analyses by demonstrating that generator reinforces the effects of development. For practitioners, the practical significance of development cannot be overstated, given its demonstrable link with generator. Findings reported by Adebayo and Dauda (2018) observed that respondents with greater exposure to development recorded markedly different results. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

In recent years, development has emerged as a central theme in scholarly discourse on mechanical engineering. Economic pressures and resource scarcity frequently determine the pace at which development advances in practice. The work of Adebayo and Adeniyi (2023) extended earlier analyses by demonstrating that generator reinforces the effects of development. For practitioners, the practical significance of development cannot be overstated, given its demonstrable link with generator. An examination by Bamgbose and Obiora (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. These observations collectively invite a reconsideration of standard assumptions regarding generator. 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 mechanical engineering. Globalisation and technological change have intensified both the opportunities and the challenges associated with development. Bamgbose and Obiora (2020), in a survey of relevant stakeholders, concluded that the benefits of development are unevenly distributed across groups. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Research by Bamgbose and Olawale (2021) using mixed methods provided particularly rich insight into the mechanisms connecting development and generator. Such findings reinforce the argument that development 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.

development, when examined in relation to generator, reveals complex and often paradoxical dynamics. The socio-cultural diversity of Nigeria implies that responses to development must be differentiated rather than uniform. An examination by Adeniyi and Ibrahim (2019) attributed much of the observed variation in