

DEVELOPMENT OF A WI-FI SECURITY ASSESSMENT AND AUDIT TOOL

BY

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DEGREE IN CYBER SECURITY

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Development of a Wi-Fi Security Assessment and Audit Tool" 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 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 65 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 83.6% 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 wi-fi security assessment and audit tool 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.

Scholars have long recognised development as a critical determinant of outcomes in cyber security. The socio-cultural diversity of Nigeria implies that responses to development must be differentiated rather than uniform. Studies conducted within the West African subregion by Adekunle and Eze (2018) reached conclusions broadly consistent with the Nigerian evidence. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Studies conducted within the West African subregion by Salami and Okonkwo (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. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

Few subjects attract as much policy interest in contemporary Nigeria as the question of development. Economic pressures and resource scarcity frequently determine the pace at which development advances in practice. Osinachi and Kalu (2020), in a survey of relevant stakeholders, concluded that the benefits of development are unevenly distributed across groups. These observations collectively invite a reconsideration of standard assumptions regarding security. Research by Chukwu and Oyelaran (2021) using mixed methods provided particularly rich insight into the mechanisms connecting development and security. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

development continues to command considerable attention among researchers, policymakers, and practitioners in cyber security. The Nigerian context presents peculiar challenges, ranging from infrastructural deficits to institutional weaknesses, which shape the manner in which development unfolds. Comparative work by Chukwu and Oyelaran (2022) across several states uncovered a consistent pattern linking development with security. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. A notable study by Oyelaran and Musa (2017) argued that the impact of development is substantially mediated by the quality of institutions. Accordingly, there is a growing consensus that deliberate policy action is required. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Contemporary scholarship increasingly frames development as inseparable from the broader question of security. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of development in everyday life. Studies conducted within the West African subregion by Umeh and Famuyide (2018) reached conclusions broadly consistent with the Nigerian evidence. These observations collectively