The Impact Of School-Level ICT Education On The National Digitization Effort In Sri Lanka

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I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science.

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DECLARATION

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Sri Lanka Institute of Information Technology or to any other institution for assessment for any other purpose.

Sign: …….....

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Date: ……02/11/2025……..

ABSTRACT

The Impact Of School-Level ICT Education On The National Digitization Effort In Sri Lanka

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The significant demand for digitally qualified workforces in Sri Lanka under the digitization programme, has placed considerable pressure on the supply chain, where School ICT education systems is the primary supplier. This study was to evaluate the national policy and the educational outcomes. The main objective of this research was to measure the gap between the demand and supply of digitally qualified work forces, and to develop and implement an ideal information system to assist in finding a solution to this complex issue. That is CoreAlign-Nexus.

A mixed methods approach and analysis of the primary survey data collected from 101 students and 15 teachers was used to analyze the results of the study. The result revealed that 48% of students lacked access to computers which is an essential requirement to follow the practical aspects of their instruction. This revealed inequality in education, which is a failure. The analysis found that confidence acted as the determining factor for an individual to enter the job market; however, the education system was unsuccessful in supplying qualified individuals.

Based upon different international policies, this AI artifact proved to be reliable and dynamic. The evaluations by a panel of seven experts concluded the following: that the artifact's ability to diagnose the problems presented were very accurate (M = 4.86 / 5.00); but its ability to present solutions were considered to be unrealistic and impractical (M = 3.43 / 5.00). Based on the findings of this study, a "human-in-the-loop" model is recommended as the primary contribution of this research.

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In addition, I would like to extend my thanks to all the ICT Teachers and Students from the Denuwara Education Zone who took part in my primary data collection survey. Your honest and in-depth responses helped to expose the systemic barriers and opportunities inherent within this study. This study was developed using your everyday experiences; therefore, I appreciate the time you took to share your voices.

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TABLE OF CONTENTS

List of Figures

List of Tables