Explore the Scope to Implement Intelligent Enterprise Resource Planning (I-ERP) System in Business Processes

Senarathna D.M.I.P

Reg. No.: ID –MS19817354

M.Sc. in IT

Specialized in Information Systems

Supervisor: Dr. Anuradha Jayakody

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Department of Information Systems

Faculty of Graduate Studies and Research

Sri Lanka Institute of Information Technology

Declaration

The thesis entitled "Explore the Scope to Implement Intelligent Enterprise Resource Planning (I-ERP) System in Business Processes" is conducted under the supervision of Dr. Anuradha Jayakody

I declare that the information provided in this thesis is a result of my own work, except where referenced. The work has not been previously accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed: -.....

(Candidate)

Date; - .....21.:10.:.2021.....

SUPERVISOR'S DECLARATION STATEMENT

Student Name – Mr. DMIP Senarathna

Supervisor's Name - Dr.Anuradha Jayakody

I acknowledge that the above-named student has regularly attended the meeting, and actively engaged in the dissertation supervision process.

Signed - .....

(Supervisor)

Date - ….21/10/2021……..

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Abstract

Businesses are known to invest a significant capacity of their funds towards the implementation of Enterprise Resource Planning (ERP) as well as Business Intelligence (BI) systems in order to gain a sustainable competitive edge, to be in par with the advantages that the latest technological advancements are able to provide and to ensure the smooth running of their work processes. In today's challenging economic environment contained by the context of complicated BI and ERP, these techniques have become key strategical tools, which promptly influences the success of any software project implementation. Not much attention has been given to the integration of "Business Intelligence and Enterprise Resource Planning" which was convert form the traditional ERP system to an Intelligent-ERP system. A few experiments had been conducted in some organizations but most of the projects did not see a conclusion towards a successful integration or completion of the project due to various challenges faced during the implementation process. This research attempts to evaluate and assess the implementation of an Intelligent Enterprise Resource Planning (I-ERP) System in business processes in the company Norlanka Manufacturing Colombo Limited in Sri Lanka; in order to increase efficiency of business processes and use human knowledge effectively for decision making activities and to overcome business related issues such as repetitive and tedious work processes, increased costs and unproductivity. The main methodology that was utilized in this thesis was a primary method that utilized surveys to obtain information from 145 employees working in Norlanka. Using the SPSS tool, the data was analyzed using a number of statistical methods such as correlation, frequencies, descriptive and inferential analysis and the findings revealed that there was a significant link between the independent variables, business values, user engagement, user adoption, operational costs, operational efficiency with the dependent variable implementation of I-ERP in Norlanka. Furthermore, recommendations included, ensuring a change management team is in place, making sure top-level management and other key stakeholders were actively involved and the aspect of customization was considered according to the organization's aim, objectives and scope.

Key words – Enterprise Resource Planning, Intelligent-Enterprise Resource Planning, Industry 4.0

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