UNIVERSITI TEKNOLOGI MARA

SELECTING ERP SYSTEM SOFTWARE USING ANALYTIC NETWORK PROCESS (ANP) APPROACH: CASE STUDY MANUFACTURING OPERATION (MO) DEPARTMENT AT PROTON

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STUDENT'S DECLARATION

I declare that the work in this report was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as reference work. This report has not been submitted to any other academic institution on non-academic institution for any other degree of qualification.

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ABSTRACT

The primary focus of the research is selecting enterprise resource planning (ERP) system software at manufacturing operation department. The aim of this research is present a comprehensive method for the evaluation and selection of ERP system using an analytic network process (ANP) as based method for the selection of the best offer. Decision making team was formed to visualize the impact of various criteria on the final outcome as the evaluation results. The outcome of the ANP model depends highly on the inputs provided by the decision making team. Although, the ANP method is computational intensive, but appropriate software tools can alleviate this limitation. The proposed ANP model is beneficial to companies, which offers an efficient, convenient and simple tool that allows companies to select an appropriate ERP system. It also allows researchers to see the potential use of ANP in the ERP system selection problem. ANP has the ability to be used as a decision making analysis tool since it incorporates feedback and interdependent relationships among decision criteria and alternatives. Thus, evaluation and selection of ERP system software can be very useful for both academic research and practice.

Keywords: Enterprise Resource Planning, Analytic Network Process, Manufacturing operation, Decision Making

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TABLE OF CONTENTS