

**MODELLING THE MARKET GROWTH OF
ENTERPRISE RESOURCE PLANNING SOLUTIONS
PROVIDERS**

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Degree of Master of Science

Department of Mathematics

University of Moratuwa

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**Dissertation submitted in fulfilment of the requirements for the
degree Master of Science in Operational Research**

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DECLARATION OF THE CANDIDATE

I declare that this is my own work and this dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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DECLARATION OF THE SUPERVISOR

The above candidate has carried out research for the Masters Dissertation under my supervision.

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Date: 07/08/2023

Senior Lecturer Dr. P.M. Edirisinghe

ABSTRACT

This thesis delves into the intricate dynamics of the market growth experienced by Enterprise Resource Planning (ERP) solutions providers in Sri Lanka. With the increasing demand for digitalization and process automation in the corporate sector, ERP systems have become a popular choice for businesses of all sizes. However, despite the growing market potential, ERP providers in Sri Lanka have faced challenges in expanding their customer base and achieving sustainable growth. The research was conducted using a questionnaire-based survey that collected primary data from 300 middle-level managers, marketing staff, and technical staff working in 10 ERP solutions developing companies. A stratified random sampling method was used to select 30 employees from each company to fill out the questionnaire. Descriptive and statistical analyses were performed on the collected data, and regression analysis was used to measure the impact of factors that directly affect the market growth of ERP solutions providers in Sri Lanka.

The main findings of the study are that the "Existing barriers to technical capabilities of staff", "Barriers to financing capabilities of local software developers", and "Existing barriers to domestic firms' price competitiveness have a negative impact on the market growth of ERP solution providers. In contrast, "Infrastructure Availability" has a positive impact on market growth. Moreover, the "Existing barriers to country attractiveness & marketing skills" have a negative impact on market growth. The Adjusted R-square of this model is 0.570, indicating that other factors not included in the model also affect the market growth of ERP solution providers. Additionally, the study identified two outliers in the data set, which are far away from the main cluster of points. These findings suggest that the factors analysed in this study can help organizations in the ERP industry to identify and address the barriers to growth and develop strategies for sustainable growth in the market.

Key words: Enterprise Resource Planning (ERP), Regression analysis, Market growth, sustainable growth

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