

The Significance of R&D Investment and ICT Usage in Generating High Income Economy: An Analysis on Selected ASEAN Countries



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1. Letter of Report Submission

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Deputy Vice-Chancellor (Research and Innovation)
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Prof,

FINAL RESEARCH REPORT 'The Significance of R&D Investment and ICT Usage in Generating High Income Economy: An Analysis on Selected ASEAN Countries'

Kindly refer to the above.

Submitted are three (3) copies of our Final Research Report entitled 'The Significance of R&D Investment and ICT Usage in Generating High Income Economy: An Analysis on Selected ASEAN Countries' by researchers from the Faculty of Business Management, UiTM Sarawak Campus for your reference.

Thank you.

Yours Sincerely,

CHONG FEN NEE, DR.
Group Leader
Research Project

5. Report

5.1 Proposed Executive Summary

(Original proposal)

The main purpose of this study is to explore the impact of R&D investment on the proxies of income or wealth among ASEAN countries. Gross national income (GNI) per capital will be used as proxy of wealth in this study. This study is of significant because in order to cope with the globalization and transforming into knowledge based economy both the government and industries have beefed up efforts in R & D. Nevertheless, prior research only examined the significance of R&D investment at the firm rather than country level. Some believe that it enhances corporate growth while other found it generates higher income much later. In terms of methodology, multi-factor model will be employed as it is a better alternative comparing to the CAPM and APT in explaining variations in stock returns. Relevant data will be extracted from secondary resources. Furthermore, time series econometrics will be used to analyze and provide results to the objectives proposed in this study. Apart from providing additional information to the practitioners to facilitate better decision making in the future and enriching the existing literature to pave ways for more researchers to the academics, this study also intends to contribute useful input for future policy formulation.

5.2 Enhanced Executive Summary/Abstract of the Research

This study delivers two objectives. Firstly, to examine the relationship between gross national income per capita and the internet usage rate per 100 people of an emerging economy – Malaysia, both in the short and long-run. Secondly, the relationship between the research and development expenditure and the gross national income per capital of Indonesia is assessed. The econometrics analysis method used to analyze the relationship for these two variables is the Autoregressive Distributed Lag Modeling Bound Test Approach make famous by Pesaran and Shin (1999 and 2001). A thirteen-year time series data were used in the analysis. Empirical findings from the econometrics analysis reported a significant long-run and short-run relationship between internet usage rate and gross national income per capita in Malaysia. Hence, this study concludes that, enhancing internet usage among the public and private sectors is a pertinent strategy for Malaysia towards achieving a higher wealth status for its people. On the other hand, empirical results also demonstrated that there is a significant long-run relationship between the research and development investment expenditure and the gross national income of Indonesia. Nevertheless, the expenditure on research and development does not produce a high return in terms of gross national income per capita; indeed, it produces a rather mild payback. Since expenditure in research and development is inevitable for a country to remain competitive in a globalized economy; therefore, enhancing research and development is still a relevant strategy. Nonetheless, the government needs to identify the areas of research and development which better suit the characteristic of its economy.