

**UNIVERSITI TEKNOLOGI MARA**

**VALUATION AND DETERMINANTS  
OF SUSTAINABLE DEVELOPMENT  
IN MALAYSIA**

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Thesis submitted in fulfilment  
of the requirements for the degree of  
**Doctor of Philosophy**  
**(Business Management)**

**Faculty of Business and Management**

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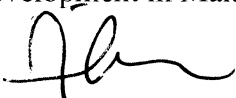
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I declare that the work in this thesis carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work unless otherwise is indicated or acknowledged as referenced work. This thesis has not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

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## ABSTRACT

This study proposed a comprehensive economic-based indicator, the World Bank's Adjusted Net Savings (ANS) rate for measuring sustainable development path in Malaysia. Introduced in the early 1990s, ANS consists of augmented calculation of national savings, which accounts for human capital investment, natural resources depletion and environmental degradation. The first objective of this study was to calculate the ANS rate in Malaysia and compare with data from the World Development Indicator (WDI) report. By including the education expenditures made by both public and private sectors, along with the inclusion of sulphur dioxide emission as the extension for pollution damage, Malaysia's sustainability path appeared to be overestimated in contrary to the World Bank's report. The subsequent objectives were to estimate and analyse the possible determinants of ANS rate in Malaysia, during the period from 1970 until 2014. The intention to seek possible determinants of ANS emerged from past literature on economic growth. Per capita income, foreign investment inflows, money supply, minerals exports, manufactured goods exports and labour productivity were selected as the explanatory variables for ANS, per capita ANS and its components (education expenditures, natural resources depletion and environmental damages). Using the autoregressive distributed lag (ARDL) time-series model based from the bounds-test analysis, results revealed that exports of manufactured goods and natural resources were the most significant determinants in influencing the sustainability models of ANS in both short-run and long-run. The overall findings implied that future government policies must be embodied with concerns towards intergenerational well-being, reinvestment of natural capital stocks and also the environmental protection. The outcome of this study further recommended the projection of ANS rate for Malaysia at state-levels, especially for resource-abundance areas in order to monitor their sustainable development progress. In addition, an extensive hybrid ANS sustainability model may also be developed. The indicator may be used to provide a clearer perspective to the government, policymakers, and society members as it quantifies whether a plan is not balanced while in the approach to sustainable development.

**Keywords:** Sustainable Development, Adjusted Net Savings, ARDL, Malaysia

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