

UNIVERSITI TEKNOLOGI MARA

**MODELLING STOCK SELECTION
IN MALAYSIA BASED ON
DATA ENVELOPMENT ANALYSIS (DEA)**

MD KHAIRU AMIN ISMAIL

Dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Business Administration

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AUTHOR'S DECLARATION

I declare that the work in this dissertation 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 referenced work. This dissertation has not been submitted to any other academic institution or non-academic institution for any other degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for the Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

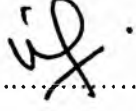
Name of Student : Md Khairu Amin Ismail

Student I.D. No. : 2007244982

Programme : Doctor of Business Administration (DBA)

Faculty : Business Management

Dissertation Title : Modelling Stock Selection in Malaysia Based on Data Envelopment Analysis (DEA).

Signature of Student : 

Date : October 2013

ABSTRACT

Stock selection has been a crucial puzzle to investors and abundant empirical works have looked at this issue. Nevertheless, there is very limited empirical evidence that employs DEA in stock selection. Therefore, the main purpose of the study is to apply DEA models on stock selection of Malaysian stocks. The scope of the study incorporates all firms of the five sectors of Bursa Malaysia Main Market, which are consumer, industrial, property, plantation, and trading & services. Two DEA models, technical-efficiency and super-efficiency, are utilized in modeling the DEA stock selection in Malaysia. Stock selection takes place during various economic conditions, specifically sideways-trend, upward-trend and downward-trend, covering from 1998 to 2005. The ex-post period of portfolio performance is evaluated based on 12-month (short-term) and 36-month (long-term) holding periods. The empirical findings show that, during sideways-trend selection, on average, both the DEA super-efficiency and technical-efficiency portfolios produce significantly positive abnormal returns over the long-term. However, during upward-trend selection, on average, the DEA super-efficiency portfolios exhibit significantly negative abnormal returns for both short-term and long-term periods. During downward-trend selection, the DEA super-efficiency portfolios show significantly negative abnormal returns over the long-term. The present study contributes to the literature by furnishing new empirical evidence on DEA stock selection literature as well as on the emerging market literature. Furthermore, it is also able to contribute to firms and policy makers as well. Overall, pertaining to the present findings, it is rendered that the DEA portfolios outperform over the long-term holding period particularly when the selection took place during side-way trend. This empirical finding suggests that the DEA models can be applied in Malaysia during side-way trend as a tool for helping investors in their stock selection.

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