Universiti Teknologi MARA

Analysis on Stock Selection in Bursa Malaysia by using Hesitant Fuzzy TOPSIS and Z-Number Fuzzy TOPSIS

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STUDENTS'S DECLARATION

I certify that this report and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ABSTRACT

Stock selection is an investment strategy that involves buying stock and reselling the stock. The investor needs to list the stock according to the highest investment to the lowest investment to know which company can give more profit. The problem is most of the investors are struggling with which stocks they should choose to trade. Next, financial investors are facing the problem of the stock selection because they do not properly understand which stocks to buy or which stocks to sell in order to get optimum profits and also difficult to analyse information individually and manually. The purpose of this study is to compare the ranking from Hesitant Fuzzy TOPSIS and Z-Number Fuzzy TOPSIS for stock selection in Bursa Malaysia. Next is to rank the stock based on experts' opinions using Hesitant Fuzzy TOPSIS and Z-Number Fuzzy TOPSIS and to find the best company for the investors to invest. The method used in this study is Hesitant Fuzzy TOPSIS and Z-Number Fuzzy TOPSIS. The data use is primary data that need to distribute the questionnaire. The data was collected from Bursa Malaysia and it involves three decision makers from expert's lecturer at the Faculty of Business Management in UiTM Arau, Perlis to answer the questionnaire. There are 10 companies and five criteria that have been choosing in order to distribute the questionnaire. The calculation of the methods is done using Microsoft Excel. After through calculation, the result shows the similar findings for both Hesitant Fuzzy TOPSIS and Z-Number Fuzzy TOPSIS. Hence, the best company that the investors should be investing in is the Nestle (Malaysia) Berhad Company.

Keywords: Hesitant Fuzzy TOPSIS, Z-Number Fuzzy TOPSIS, Bursa Malaysia

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