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# Editorial

## Special Issue: Management Applications of the AHP in South East Asia

Guest Editors:  
Rafikul Islam  
Wan Rohaida Wan Husain

Welcome to Volume 48, No. 2 of the Malaysian Management Review! This special issue has been devoted to **Management Applications of the Analytic Hierarchy Process (AHP) in South East Asia**. Following are brief outlines of the papers included in this issue. However the ideas presented are authors own interpretations and MMR is not necessarily a party to this.

This issue presents five papers dealing with the application of a cutting-edge decision making method, the Analytic Hierarchy Process (AHP), in five distinct areas. The AHP method has been applied in numerous fields in the past, including supply chain management, strategic management, finance, marketing, quality management, environmental management, and so on. The applications of the AHP method presented in this special issue are timely, and are expected to draw the attention and interest of industry players and practitioners to use of the method in helping to promote scientific decision making in the Malaysian corporate and public sectors. Following are brief outlines of the papers included in this issue.

Conflict resolution has drawn widespread attention from researchers worldwide. Effective resolution of conflicts requires the incorporation of human feelings, emotions, dignity and many other intangibles in the resolution process. The analytic hierarchy process is, perhaps, a conspicuous exception to decision-making models in use today in that it can objectively measure intangibles to help users make meaningful decisions. Not only in the area of conflict resolution, but in many other areas as well – such as, for example, the choice of a city or region for business expansion. Distinguished Professor Thomas L. Saaty of the University of Pittsburgh has been credited with developing the AHP. He shares in a paper in this issue how decision-making that incorporates the consideration and measurement of intangibles can yield benefits in various aspects of business and society, particularly in the area of conflict resolution.

Authors Margarita Sergeevna Peredaryenko and Rais Hussin Mohamed Ariff used the AHP method in an attempt to predict the winning candidate for the position of Chief Minister of Perak in Malaysia's 13th General Election held in 2013. Several criteria were considered in the prediction exercise, namely, charisma, humility, integrity, party, nation-building, people management, leadership and experience. A survey questionnaire structured using the AHP method was administered to a sample of respondents representative of the population at large, and responses were collected and analysed. Analysis of the responses predicted that Dato' Seri DiRaja Dr. Zambry Abd Kadir would be elected over his rival, Dato' Seri Ir' Mohammad Nizar Jamaluddin. It is interesting to note that the prediction closely matched the actual election result.

Machine operators play an important role in the manufacturing industry. Decisions regarding the optimal setup of production processes, and the allocation of operators to those processes, are usually made through experience and trial and error. Consequently, the decisions may not result in the most efficient use of labour, or the achievement of maximum productivity. Authors Ruzanita Mat Rani and Wan Rosmanira Ismail found the AHP/DEA model to be more effective than other decision-making models in helping management of a firm determine the optimum setup of production lines and allocation of operators. The authors claimed that for the operation under study, the model resulted in a decision that could reduce the production cycle and waiting time, as well as increase the number of parts produced and the average utilization of operators, leading to greater productivity and profit.

Apart from making profit, business entities nowadays are also expected to contribute to greater society, especially in achieving socio-economic objectives. Islamic banking aims at ensuring the equitable distribution of income and wealth in society and promoting social justice. Of late, Islamic banking has been a popular research area in the area of finance. The paper by Karmila Hanim Kamil et al. deals with prioritizing the multiple objectives of asset and liability management under the purview of Islamic banking. It is expected that the application of the AHP model to questions such as this will spur more use of the model in other areas of Islamic banking and finance.

Petronas is Malaysia's national oil and gas company. To remain resilient in the turbulent oil market and sustain its profitability, the company should be maximizing its production now, while prices are high. But oil production has been declining since 1996, so what is the company to do when routine optimization has failed to stop the decline? A comprehensive study of methods of extracting more oil from Field X is a must. Authors Slamet Riyadi and Rafikul Islam show how the AHP method can be applied effectively to the selection of an external technical service provider to carry out the study, based on several critical criteria.

We hope that readers will find the papers stimulating and useful. Please email us at [mmr@mim.org.my](mailto:mmr@mim.org.my) if you have a paper you wish to have considered for inclusion in future issues, if you wish to provide any feedback on this issue, or for any other enquiries. As always, feedback on the papers is most welcome: kindly send your comments to the authors and forward a "c.c." to [mmr@mim.org.my](mailto:mmr@mim.org.my).

# Application of the Analytic Hierarchy Process to the Election of the Chief Minister of Perak, Malaysia 2013

by

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## ABSTRACT

Over the last two to three decades, in an attempt to predict the most likely outcomes of public elections, different methods and techniques have been developed and employed by social scientists to produce empirical evidence of a predictive power. This study is focused on the application of the analytic hierarchy process (AHP) as a tool to forecast the most likely winner in the election of the Chief Minister of Perak, Malaysia, in the year 2013. Two candidates, Dato' Seri DiRaja Dr. Zambry Abd Kadir, and Dato' Seri Ir' Mohammad Nizar Jamaluddin, were compared against the following eight criteria using the AHP method: charisma, humility, integrity, party, nation-building, people engagement, leadership and experience. AHP survey questionnaires were distributed in Ipoh, State of Perak, Malaysia. A total of 30 respondents were randomly selected. According to the results of the survey, Dr. Zambry was projected to win the election with 59.57 percent of the total votes. However, there were differences in the survey results between the three main ethnicities representing the population of Malaysia. Although the Malay and Indian respondents showed their unanimous support for Dr. Zambry (with scores of 66.98 percent and 69.55 percent, respectively), Chinese respondents preferred Nizar (60.12 percent) over Zambry.

*Keywords: analytic hierarchy process, predicting election outcomes, Malaysia.*

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