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Rasch Measurement Model for Scale Validation of Rowe's Managerial Decision-Making Styles Inventory for University Management Dominance Decision Style

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Abstract

Effective leaders or managers tend to make effective decisions. Measuring one's leadership in terms of decision-making is getting more and more relevant to many organisations since this would predict managers' or leaders' reactions to various working situations and their influence on organisational success. The current study attempts to bring a new perspective on how the Managerial Decision-Making Styles Inventory (DMSI), originally developed by Alan Rowe and Mason in 1987, can be further explored, improved and used by various organisations including academic setting in higher education. The DMSI instrument, which was originally developed using a semantic scale, can no longer be friendly to many researchers or statisticians at the current time. Thus, this research provides a set of new scales for the original instrument by changing and increasing the

original scales to six Likert’s scales using the Rasch measurement model. From the Rasch outputs, the item separation of 20.47 indicated that all items created a variable that spread about 20 levels. The item’s reliability was 1.00, which is considered acceptable and perfect in measurement. The values of the infit MNSQ ranged from 0.77 to 1.87, while the values of the outfit MNWQ ranged from 0.57 to 6.37, respectively. The standardised Residual Variance of managerial decision-making styles was explained by measures of 69.1%, which indicated a strong measurement dimension. With these results, the researchers concluded that the DMSI instrument by Rowe and Mason can be used to measure any organisational managerial decision-making styles. Some implications and recommendations were also provided for the best and most effective decision-making styles and practices. © (2025), (UiTM Press). All rights reserved.

Author keywords

Higher Institutions; Malaysia; Rasch Measurement Model; Rowe Decision Styles; Rowe Inventory; Scale Validity; University Management

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