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Massey University

The Development and Psychometric Assessment of a Measure of Numerical Business Acumen

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Abstract

The competency Numerical Business Acumen has been identified as a managerial behaviour that is crucial for keeping pace with a dynamic business environment. Numerical Business Acumen was defined as the ability to interpret numerical data within the wider organisational and external context. The primary components of this construct were hypothesised to be numerical critical reasoning and business acumen. No commercially available test appears to adequately measure this construct. Therefore, the main aims of the present research were to develop a scenario-based measure of the Numerical Business Acumen competency, and to assess its psychometric properties. Two parallel versions of the Numerical Business Acumen measure and a comparative measure of critical reasoning were administered to a sample of 46 participants from seven organisations. The results showed that both the measure's internal consistency (r = .36) and stability over time (r = .27) were relatively poor. The Numerical Business Acumen measure did not correlate with the comparative measure used, indicating that a construct distinct from numerical critical reasoning was being assessed. This construct was tentatively identified as an aspect of business acumen, one which might include a type of context-specific critical reasoning based on experiential learning. Suggested improvements to the measure consisted of further refinement of the existing questions, and the inclusion of additional questions to measure other components of the Numerical Business Acumen competency.

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