Comparative Analysis of ChatGPT and Other AI Tools in Answering Accounting Professional Body Multiple-Choice Questions: Implications for Accounting Education

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Abstract

Purpose/Aim: This study investigates the proficiency of AI tools, such as OpenAI's ChatGPT, in answering professional accounting body multiple-choice questions (MCQs), a widely used assessment method in accounting education. Drawing on retrieval practice theory, the research aims to evaluate the potential of AI-based tools as supportive resources for accounting professionals and students, while identifying their limitations, areas for enhancement, and implications for the use and design of MCQs in accounting education.

Design/Methodology: A comparative analysis was conducted by submitting mock management accounting MCQs, curated from a number of professional accountancy bodies, to ChatGPT and other AI tools. The responses provided by each AI tool were compared to the correct answers from the corresponding mark schemes. The ability of AI tools to correctly answer a variety of MCQ styles was analysed to understand the effectiveness of AI in an accounting MCQ context.

Findings: Results indicate that AI tools, including ChatGPT, can correctly answer sufficient questions to achieve a pass mark. Analysis indicates that AI performs substantially better on single and multi-select non-numerical MCQs. However, performance on scenario based, multi-part questions was less impressive. The findings have implications for the design of MCQs in accounting education.

Implications and Contributions: This study is one of the first to investigate the use of AI tools in the context of professional accountancy body MCQs. We offer valuable insights for accounting academics to inform the use of AI-based tools in supporting assessment and highlight the implications for the use and design of MCQs in accounting.

Key words: Artificial intelligence, MCQs, accounting education, ChatGPT, examinations