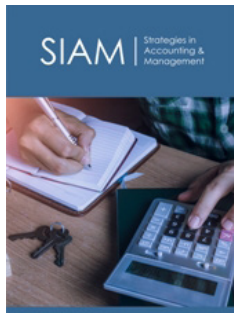


Big Data in Accounting Management: Challenges and Trends in Today's Scenario

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Abstract

The convergence of data analysis and data science with accounting management represents a significant shift in corporate financial systems. This review synthesizes recent findings on the integration of management accounting and financial accounting with advanced big data technologies. It examines the challenges and future trajectories in this evolving field, including developing sophisticated models for detecting financial fraud, assessing the influence of economic cycles, and incorporating data mining and machine learning techniques into accounting practices [1]. In addition, the impact of digital skills on enhancing management accounting proficiency and competitive success is presented in [2]. This research highlights the substantial direct and indirect influence of digital skills on competitive performance, with management accounting abilities acting as a mediator.

Introduction

Contemporary corporate accounting systems, including financial and management accounting, are crucial for the success of organizations. Financial accounting focuses on processing and recording daily capital transactions to help external stakeholders understand a company's progress, while management accounting uses digital analysis to assist in internal decision-making [1]. The combination of these elements, supported by data science and analysis, presents both challenges and opportunities for improving financial management effectiveness. In light of the evolving digital landscape, businesses-particularly micro-entrepreneurs-need to adopt digital technologies and strengthen their management accounting skills as digital data and technology. This knowledge plays a vital role not only in the IT sector but also in organizational management within the field of accounting [2]. This fusion is becoming an essential factor for the success of enterprises.

Challenges and Future Trends

The literature shows an increasing reliance on advanced data analysis techniques in the financial sector, such as artificial neural networks, logistic regression, and decision trees. The development of comprehensive models using methods like Bagging, Boosting, and Stacking further illustrates this trend. These models integrate a combination of financial and non-financial factors, indicating a shift towards more holistic and intricate data analysis within accounting. The merging of management and financial accounting through big data analysis requires a new approach to handling and processing data. This involves tasks such as cleaning up the data and transforming it into essential information that accurately reflects an organization's operational efficiency, profitability, and ability to repay debts [1]. Consequently, businesses need higher standards for analyzing financial information at various levels of management within organizations. Integrating digital skills with managerial accounting expertise is becoming relevant for enterprises -especially small business owners- to cultivate proficiency in both digital technologies and accounting practices to improve their competitive

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performance. Merging these competencies helps with better cost control, strategic business planning, risk evaluation, ultimately contributing to an improved decision-making process promoting overall sustainability of operations [2].

Conclusion

The integration of management accounting and financial accounting, influenced by big data and data science, is reshaping corporate financial management. This blend enhances the efficiency and scientific foundation of accounting practices while also paving the way for new developments in corporate accounting [1]. Future trends point to a heightened emphasis on advanced, data-driven decision-making tools, reflecting a growing focus on precision and comprehensive data analysis in accounting

management. In essence, this thorough review underscores the link between digital competencies and management accounting skills as a crucial element for competitive performance in the digital era. Refining these abilities can lead to improved cost control, strategic planning, and risk management – an outcome that ultimately fortifies businesses' competitive stance, particularly for microentrepreneurs [2].

References

1. Sun H (2023) Construction of integration path of management accounting and financial accounting based on big data analysis. *Optik* 272: 170321.
2. Imjai N, Aujirapongpan S, Mahadi N (2023) The interplay of digital and management accounting competency to competitive performance in the open innovation era: A case of thai micropreneurs. *J Open Innov Technol Mark Complex* 9(4): 100167.