Guest editorial: Digital accounting, financial technology and data analytics

The advent of a wide variety of cutting-edge technologies is radically changing our globalized world. Cutting-edge technologies refer to the disruptive, newest and most advanced technologies.

In other words, these technologies are at the frontier of knowledge, intelligence, wisdom and smart learning technologies. With the emergence of these technologies such as big data, analytics, deep learning, blockchain, augmented and metaverse reality, the internet of things and human–robot collaboration, users have more options than ever before to gain an advantage or to add new value to their settings.

Despite the rapid growth of new cutting-edge business technologies, the adoption of digital accounting systems, financial technology, smart banking services and applied artificial intelligence models is still in their infancy. That is, interaction with emerging digital technologies is not just a digital challenge, but also a human behavior and organizational issue involving understanding, learning, acceptance and intention to use. A thorough examination of the antecedents, consequences and diffusion of digital accounting and financial smart technology shows that human–digital technology interactions play an important role which is often disregarded in the way such sustainable innovation conveys to light.

This special issue contains contributions from eight research papers on the blockchain, big data analytics, cloud AIS, robo-advisior, genetic algorithm, metaverse banking and retention contracts.

In the context of cutting-edge technologies, blockchain technologies are revolutionizing the financial industry and business (Dehghani *et al.*, 2022). It eliminates the need for intermediaries and offers a more secure and efficient method to conduct financial and banking transactions. In the research paper "Blockchain adoption in accounting by extended UTAUT model: empirical evidence from an emerging economy" by Abu Afifa *et al.* (2022), an evaluation of the accountant's intention to use blockchain technology is conducted using an extended UTAUT model (Venkatesh *et al.*, 2003). As a result, the proposed model is intended to offer accountants the required incentives to adopt blockchain. Accountants recognize the relevance of blockchain in their job as well as its favorable impact on performance.

In the research paper "Blockchain technology acceptance by investment professionals a decomposed TPB model" by Kumari and Devi (2022), the decomposed theory of planned behavior model is investigated using structural equation modeling. Findings revealed that DTPB provides the best fit for the data (Kumari and Devi, 2022).

In the research paper "No trust, no use: how young retail investors build initial trust in financial robo-advisors" by Nourallah *et al.* (2022), a set of determinants on initial trust

and behavioral intention to use financial robo-advisors are suggested. Results revealed that the amount of public information, social media, information seeking and a rational decision-making style are positively associated with FRAs. However, the adoption of robo-advisors has also been driven by several factors such as cost-effectiveness, convenience, transparency, customization and technology. As a result, the adoption of robo-advisors has been significant, particularly among young investors (Jiang *et al.*, 2020).

The research paper titled "Big data analytics and financial reporting quality: qualitative evidence from Canada" by Saleh *et al.* (2022) explores the relationship between big data analytics and the quality of financial reporting.

The author conducted a qualitative study using semi-structured interviews with auditors, financial analysts and accountants in Canadian audit and accounting firms. The study found that big data analytics can help companies to identify patterns and trends in their financial data that may have been missed using traditional methods. This can lead to better forecasting risk management and decision-making (Alles, 2015, 2021; Balios, 2021; Cao *et al.*, 2022; Cong and Du, 2022; Salijeni *et al.*, 2019; Varma, 2018; Zhang *et al.*, 2015; Chen *et al.*, 2012).

In portfolio optimization, ensemble machines and genetic algorithms can be used to optimize the portfolio rebalancing process. This involves using genetic algorithms to find the optimal weights for assets in the portfolio based on various constraints and objectives (Jiang *et al.*, 2020), such as risk tolerance, return objectives and liquidity needs. The research paper titled "Portfolio rebalancing based on combined methods of ensemble machine learning and genetic algorithm" by Faridi *et al.* (2022) presents a two-level method combining ensemble learning and genetic algorithm that has the highest total stock portfolio by examining the rate return on capital.

The research paper titled "Cloud-based accounting information systems usage and its impact on Jordanian SMEs performance: the post COVID-19 perspective" (AL-Okaily *et al.*, 2022) revealed that performance expecting, social motivation, COVID-19 risk and trust were positively influencing behavior to use cloud-based ALS. While the effect of effort expectancy and perceived security risk was insignificant.

The research paper titled "Retention contracts with asymmetric information: optimistic approach vs. Pessimistic approach" by Athamena *et al.* (2022) investigated the agent–principal problem to formally examine how the principal uses the retention contract for disciplining or screening the agent in case the principal possesses insufficient information regarding the impact of the agents' decision. This paper highlights the principal's trade between the selection of agents by formally identifying the conditions under which the principal keeps or fires agents when the project outcomes are not visible.

Finally, in the article titled "Towards an understanding of metaverse banking a conceptual paper" by Zainurin *et al.* (2022), a conceptual review is used to synthesize the current banking and financial literature of smart digital banking services known as metaverse banking as well as to discuss an immersive virtual interactive tool (Arpaci *et al.*, 2022).

However, all eight articles published in the special issue have a significant impact on the digital accounting and financial technology literature. Each article contributes to our understanding of how technology is transforming the accounting and financial industry and provides insights into how businesses can effectively leverage these technologies to improve their process.

The articles cover a range of interrelated fields, including blockchain, big data analytics, cloud-based ALS, robo-advisors, machine learning and other artificial intelligence

applications. By examining these topics, the articles offer valuable insights into the benefits and challenges of using digital accounting and financial technologies and provide practical recommendations for businesses looking to adapt their technologies. Together, the articles make a significant contribution to the growing body of literature on digital accounting and financial technology and offer important guidance for professionals and academics working in these areas.

Saad G. Yaseen

Faculty of Business, Al-Zaytoonah University of Jordan, Amman, Jordan

References

Abu Afifa, M.M., Vo Van, H. and Le Hoang Van, T. (2022), "Blockchain adoption in accounting by an extended UTAUT model: empirical evidence from an emerging economy", *Journal of Financial Reporting and Accounting*, doi: 10-1108/JFRA/2-2021-0434.

Alles, M.G. (2015), "Drivers of the use and facilitators and obstacles of the evolution of big data by the audit profession", *Accounting Horizons*, Vol. 29 No. 2, pp. 439-449.

Al-Okaily, M., Al-Khwaldi, A.F., Abdulmuhsin, A.A., Al-Qudah, H. and Al-Okaily, A. (2022), "Cloud-based accounting information systems usage and its impact on Jordanian SEMEs performance: the post – COVID-19 perspective", *Journal of Financial Reporting Accounting*, doi: 10.1108/JFRA-12-2021-0476.

Arpaci, I., Karatas, K., Kusci, I. and Al-Emran, M. (2022), "Understanding the social sustainability of the metaverse by integrating UTAUT2 and big five personality traits: a hybrid SEM-ANN approach", *Technology in Society*, Vol. 71, p. 102120.

Athamena, B., Houhamdi, Z. and EIRefae, G.A. (2022), "Retention contracts with asymmetric information: optimistic vs pessimistic approach", *Journal of Financial Reporting and Accounting*, doi: 10.1108/JFRA-12-2021-0488.

Balios, D. (2021), "The impact of big data on accounting and auditing", *International Journal of Corporate Finance and Accounting (IJCFA)*, Vol. 8 No. 1, pp. 1-14.

Cao, T., Duh, R.R., Tan, H.T. and Xu, T. (2022), "Enhancing auditors' reliance on data analytics under inspection risk using fixed and growth mindsets", *The Accounting Review*, Vol. 97 No. 3, pp. 131-153.

Chen, H., Chiang, R. and Storey, V. (2012), "Business intelligence and analytics: from big data to big impact", *MIS Quarterly*, Vol. 36 No. 4, pp. 1165-1188, doi: 10.2307/41703503.

Cong, Y. and Du, H. (2022), "The use of new data sources in archival accounting research: implications for research in accounting information systems and emerging technologies", *Journal of Emerging Technologies in Accounting*, Vol. 19 No. 1, pp. 21-31.

Faridi, S., Madanchi Zaj, M., Daneshvar, A., Shahverdiani, S. and Rahnamay, R.F. (2022), " "Portfolio rebalancing on a combined method of ensemble machine learning and genetic algorithm", *Journal of Financial Reporting and Accounting*, doi: 10.1108/JFRA-11-2021-0413.

Jiang, Z., Ji, R. and Chang, K.-C. (2020), "A machine learning integrated portfolio rebalance framework with risk- aversion adjustment", *Journal of Risk and Financial Management*, Vol. 13 No. 7, p. 155.

Kumari, A. and Devi, N.C. (2022), "Blockchain technology acceptance by investment professionals: a decomposed TPB model", *Journal of Financial Reporting and Accounting*, doi: 10.1108/JFRA-12-2021-0466.

Nourallah, M., Ohman, P. and Amin, M. (2022), "No trust, no use: how young retail investors build initials trust in financial robo-advisors", *Journal of Financial Reporting and Accounting*, doi: 10.1108/JFRA-12-2021-0451.

Saleh, I., Marie, Y., Ayoush, M. and Abu Afifa, M.M. (2022), "Big data analytics and financial reporting quality: qualitative evidence from Canada", *Journal of Financial Reporting and Accounting*, doi: 10.1108/JAFRA-12-2021-0489.

Salijeni, G., Samsonova-Taddei, A. and Turley, S. (2019), "Big data and changes in audit technology: contemplating a research agenda", *Accounting and Business Research*, Vol. 49 No. 1, pp. 95-119.

Varma, A. (2018), "Big data usage intention of management accountants: blending the utility theory with the theory of planned behavior in an emerging market context", *Theoretical Economics Letters*, Vol. 8 No. 13, pp. 2803-2817.

Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D. (2003), "User acceptance of information technology: toward a unified view", *MIS Quarterly*, Vol. 27 No. 3, pp. 425-478.

Zhang, J., Yang, X. and Appelbaum, D. (2015), "Toward effective big data analysis in continuous auditing", *Accounting Horizons*, Vol. 29 No. 2, pp. 469-476.