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The Artificial Intelligence Ethical Implications in Auditing Public Sector

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ABSTRACT

Artificial Intelligence (AI) is a megatrend technology that goals to mimic human intelligence and cognitive skills. In addition, this technological advancement purposes of offering a competitive advantage to its users. Hence, as law in most jurisdictions requires auditing companies and organisations in public sectors to be more efficient and effective than private companies about resource usage and allocation, which leads to value for money, in light of the above, many accounting firms are declaring the artificial intelligence implementation into their auditing and advisory functions, leaning to several implications that affect the audit quality and fees such as data analysis, time management, accuracy, thorough vision into the business environment and therefore enhanced the client service (Munoko et al., 2020). However, the auditing professions worldwide are facing calls for extra attention to consider the other consequences that may still arise due to such adoption despite the enhanced benefits. Hence, the regulators, policymakers and governments are facing continuous reminders of their responsibilities of such emerging technology.

KEYWORDS

Technology, Accounting and Auditing Functions, Auditing Profession, Ethics

REFERENCES

- BALIOS, D., 2021. The impact of Big Data on accounting and auditing. *International Journal of Corporate Finance and Accounting (IJCF)*, 8 (1), pp.1-14.
- Allen, C., Smit, I. and Wallach, W., 2005. Artificial morality: Top-down, bottom-up, and hybrid approaches. *Ethics and information technology*, 7(3), pp.149-155.
- ACCA. (2017). Ethics and trust in a digital age. Retrieved Jan 09 2021 from https://www.accaglobal.com/content/dam/ACCA_Global/Technical/Future/pi-ethics-trust-digital-age.pdf.
- Issa, H., Sun, T. and Vasarhelyi, M.A., 2016. Research ideas for artificial intelligence in auditing: The formalisation of audit and workforce supplementation. *Journal of Emerging Technologies in Accounting*, 13(2), pp.1-20.
- Scherer, M.U., 2015. Regulating artificial intelligence systems: Risks, challenges, competencies, and strategies. *Harv. JL & Tech.*, 29, p.63-79.
- Verbeek, P.P., 2006. Persuasive Technology and Moral Responsibility Toward an ethical framework for persuasive technologies. *Persuasive*, 6, pp.1-15.
- Stahl, B.C., Timmermans, J. and Flick, C., 2017. Ethics of Emerging Information and Communication Technologies on the implementation of responsible research and innovation. *Science and Public Policy*, 44(3), pp.369-381.
- Richins, G., Stapleton, A., Stratopoulos, T.C. and Wong, C., 2017. Big data analytics: Opportunity or threat for the accounting profession?. *Journal of Information Systems*, 31(3), pp.63-79.
- Omoteso, K., Patel, A. and Scott, P., 2010. Information and communications technology and auditing: current implications and future directions. *International Journal of Auditing*, 14(2), pp.147-162.
- Munoko, I., Brown-Liburd, H.L. and Vasarhelyi, M., 2020. The ethical implications of using artificial intelligence in auditing. *Journal of Business Ethics*, 167(2), pp.209-234.
- ELTWERI, A. (2020) Fintech in Africa. Available at www.alexander.it
- ELTWERI, A. (2020) Social and Environmental Responsibility Effect on a Company's Financial Performance. Available at www.alexander.it
- ELTWERI, A. (2020) The cultural aspects of accounting development in the MENA Region. Available at www.alexander.it
- ELTWERI, A. (2020) The forthcoming chapter of accountancy using Blockchain. Available at www.alexander.it
- ELTWERI, A. and CAVALIERE, M.L.P. (2020a) Impact of E-Accounting Practices upon the Performance of Business. *PROCEEDINGS E-BOOK*, 240.
- ELTWERI, A. and CAVALIERE, M.L.P. (2020b) Lessons in Corporate Governance to Learn From More Developed Countries. *PROCEEDINGS E-BOOK*, 57.
- ELTWERI, A., ALTARAWNAH, M., AL-HAJAYAK, K., & AL-KARAKI, W. (2018). Auditing profession regulation: Lesson learned from code and common law countries regulatory approaches. *Risk Governance and Control: Financial Markets & Institutions*, 8(3), 80-101.
- ELTWERI, A., FACCIA, A. and CAVALIERE, L.P.L., 2020. The role of culture on the adoption of International Standards on Auditing in the developing countries: An institutional perspective. *Journal of Governance and Regulation*, Vol. 9 No. 4, pp162-171.
- ELTWERI, A., FACCIA, A., ROXANA MOȘTEANU, N., SAWAN, N. and PIO LEONARDO CAVALIERE, L. (2020) The Role of Risk Management in Auditing E-Business. 2020 The 4th International Conference on Software and e-Business of Conference.
- ELTWERI, A., SAWAN, N. and TAHAR, AR (2018) The Harmonising of Auditing Standards in Emerging Economies from The Stakeholders' Perspectives. *Corporate Ownership and Control*, 15, 201-212.
- EY (2017). "How blockchain will revolutionise finance and auditing", available at: <https://betterworkingworld.ey.com/digital/blockchain-why-finance-and-auditing-will-never-be-the-same> (accessed 02 June 2021).
- FACCIA, A. and MOSTEANU, N.R., 2019. Accounting and blockchain technology: from double-entry to triple-entry. *The Business & Management Review*, 10(2), pp.108-116.
- FACCIA, A. and MOSTEANU, N.R., 2019. Tax evasion information system and blockchain. *Journal of Information Systems & Operations Management*, 13(1).
- FACCIA, A., 2019, August. Data and Information Flows: Assessing Threads and Opportunities to Ensure Privacy and Investment Returns. In *Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing* (pp. 54-59).
- FACCIA, A., Al Naqbi, M.Y.K. and Lootah, S.A., 2019, August. Integrated Cloud Financial Accounting Cycle: How Artificial Intelligence, Blockchain, and XBRL will Change the Accounting, Fiscal and Auditing Practices. In *Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing* (pp. 31-37).
- FACCIA, A., DE LUCIA, C., ELTWERI, A., SAWAN, N. AND PIO LEONARDO CAVALIERE, L., 2020, December. Extended Audit Report: Enhancing Trust and Reputation in IT Processes and across E-business Industries. In *2020 2nd International Conference on E-Business and E-commerce Engineering* (pp. 23-27).
- FACCIA, A., MOSTEANU, N.R., FAHEM, D. and CAPITANIO, F., 2019. Accounting Information Systems and ERP in the UAE: An Assessment of the Current and Future Challenges to Handle Big Data. In *Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing* (pp. 90-94).
- GAUTHIER, M.P. and BRENDER, N., 2021. How do the current auditing standards fit the emergent use of blockchain?. *Managerial Auditing Journal*, 12, 289-316
- KWILINSKI, A., 2019. Implementation of Blockchain Technology in Accounting Sphere. *Academy of Accounting and Financial Studies Journal*, 23, pp. 1-6.
- LOMBARDI, R., DE VILLIERS, C., MOSCARIELLO, N. AND PIZZO, M., 2021. The disruption of blockchain in auditing – a systematic literature review and an agenda for future research. *Accounting, Auditing & Accountability Journal*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/AAAJ-10-2020-4992>
- MAFFEI, M., CASCIELLO, R. and MEUCCI, F., 2021. Blockchain technology: uninvestigated issues emerging from an integrated view within accounting and auditing practices. *Journal of Organizational Change Management*.
- MOȘTEANU N. R., 2019. International Financial Markets face to face with Artificial Intelligence and Digital Era. *Theoretical and Applied Economics*, 26(3), 123-133.
- MOȘTEANU N. R., 2020. Artificial Intelligence and Cyber Security – A Shield against Cyberattack as a Risk Business Management Tool – Case of European Countries. *Quality-Access to Success Journal*, 21(175), 148-156.
- MOȘTEANU N. R., 2020. Finance digitalisation and its impact on labour market. [Technium Social Sciences Journal, Vol.8/ June 2020, 598-605](https://doi.org/10.1080/10439862.2020.181197).
- MOȘTEANU N. R., 2020. Green Sustainable Regional Development and Digital Era. In *Proceedings of Green Buildings and Renewable Energy*, Springer, Ch.13, 181-197.
- MOȘTEANU N. R., FACCIA, A., 2020. Digital Systems and New Challenges of Financial Management – FinTech, XBRL, Blockchain and Cryptocurrencies. *Quality-Access to Success Journal*, 21(174), 159-166.
- Moșteanu N. R., Faccia, A., Ansari A., Shamout, M. D. 2020. Sustainability Integration in Supply Chain Management through Systematic Literature Review. *Quality-Access to Success Journal*, 21(176), 117-123.
- Moșteanu N. R., Galea K. 2020. Artificial Intelligence and Cyber Security – face to face with Cyberattack – a Maltese case of Risk Management approach. *Ecoforum Journal*, 9(2)
- PETRATOS, P., & FACCIA, A. 2019. Accounting Information Systems and System of Systems: Assessing Security with Attack Surface Methodology. In *Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing* (pp. 100-105).
- SANKA, A.I. and CHEUNG, R.C., 2019, October. Blockchain: Panacea for Corrupt Practices in Developing Countries. In *2019 2nd International Conference of the IEEE Nigeria Computer Chapter (NigeriaComputConf)* (pp. 1-7). IEEE.
- SAWAN, N., ELTWERI, A., DE LUCIA, C., PIO LEONARDO CAVALIERE, L., FACCIA, A. and ROXANA MOȘTEANU, N. 2020. Mixed and Augmented Reality Applications in the Sport Industry. 2020 2nd International Conference on E-Business and E-commerce Engineering of Conference.
- SECINARO, S., CALANDRA, D. and BIANCONI, P. 2021. Blockchain, trust, and trust accounting: can blockchain technology substitute trust created by intermediaries in trust accounting? A theoretical examination. *International Journal of Management Practice*, Vol. 14 No. 2, p. 129.
- TAN, BS and LOW, KY, 2019. Blockchain as the database engine in the accounting system. *Australian Accounting Review*, 29(2), pp.312-318.
- TROSHANI, I., LOCKE, J. and ROWBOTTOM, N. 2019. Transformation of accounting through digital standardisation. *Accounting, Auditing and Accountability Journal*, Vol. 32 No. 1, pp. 133-162.
- TURKER, I. and BICER, AA 2020. How to use blockchain effectively in auditing and assurance services", *Contributions to Management Science*, Springer, Cham, pp. 457-471, doi: 10.1007/978-3-030-29739-8_22.
- XU, M., CHEN, X. and KOU, G. 2019. A systematic review of blockchain", *Financial Innovation*, Vol. 5 No. 1, p. 27.