The International EFAL-IT BLOG

Artificial Intelligence (AI) into the accounting profession

UK, 14.08.2022

AUTHORS

Dr Ahmed Eltweri

Assistant professor in Accounting-Liverpool John Moores University

Dr Alessio Faccia

Assistant professor in Finance- University of Birmingham

ABSTRACT

The introduction of Artificial Intelligence (AI) into the accounting profession is revolutionizing the way accounting is done. AI technology is providing an unprecedented level of accuracy, speed, and efficiency to the accounting process. From automating mundane tasks to providing insights on potential risks and opportunities, AI is transforming the accounting profession.

In this article, we will explore the implications of AI in accounting, including how it can be used to increase accuracy and reduce the cost of processing financial data. We will also discuss some of the challenges associated with the use of AI in accounting, such as privacy and security concerns. Finally, we will look at the potential benefits of AI for the accounting profession and the opportunities it presents for accountants.

KEYWORDS

Artificial Intelligence, Accounting, annual report, technology, privacy and security concerns, Industrial Firms.

REFERENCES

- ABBAS, K. 2021. 2021. Total Quality Management (TQM). Available at www.alexpander.it.
- ABBAS, K. and ELTWERI, A. 2021. The Impact of Leadership Styles on Employee Motivation. Available at www.alexpander.it ABBAS, K., 2018. Knowledge-sharing behaviour intentions of academics and their determinants. Liverpool John Moores University (United Kingdom).
- ABBAS, K., 2018. Knowledge-sharing behaviour intentions of academics and their determinants. Liverpool John Moores University (United Kingdom).
- AGYEMANG, A.O., YUSHENG, K., TWUM, A.K., AYAMBA, E.C., KONGKUAH, M., MUSAH, M.: Trend and relationship between environmental accounting disclosure and environmental performance for mining companies listed in China. Environ. Dev. Sustain. 23(8), 12192-12216 (2021). https://doi.org/10.1007/s10668-
- O20-01164-4.

 AKANI, F.N. and CAPTAIN BRIGGS, A. (2018). Environmental Accounting and Value Relevance of Accounting Information: Time Series Evidence from Nigeria Commercial Banks. International Journal of Accounting & Finance Review, 2(1), pp.51–67. doi:10.46281/ijafr.v2i1.22.
- Alsarayreh, T. 2022. The impact of environmental accounting disclosure on value relevance. Available at www.alexpander.it
- AURELI, S., GIGLI, S., MEDEI, R. and SUPINO, E. (2019). The value relevance of environmental, social, and governance disclosure: Evidence from Dow Jones Sustainability World Index listed companies. Corporate Social Responsibility and Environmental Management. doi:10.1002/csr.1772.
- BAALOUCH, F., AYADI, S.D., HUSSAINEY, K.: A study of the determinants of environmental disclosure quality: evidence from French listed companies. J. Manag. Gov.
- 23(4), 939-971 (2019). https://doi.org/10.1007/s10997-019-09474-0. CHAND, A., KUMAR, N., KUMAR, R.R., Prasad, S., Patel, A. and Stauvermann, P.J. (2022). Determinants of Social and Environmental Accounting Information Disclosure: An Analysis of Top 50 Firms in New Zealand. Engineering Economics, 33(2), pp.118–131. doi:10.5755/j01.ee.33.2.20819. Eltweri, A. (2020). Social and Environmental Responsibility Effect on a Company's Financial Performance. www.alexpander.it
- ELTWERI, A. 2020. Fintech in Africa. Available at www.alexpander.it
- ELTWERI, A. 2020. Social and Environmental Responsibility Effect on a Company's Financial Performance. Available at www.alexpander.it
- ELTWERI, A. 2020. The cultural aspects of accounting development in the MENA Region. Available at www.alexpander.it ELTWERI, A. 2020. The forthcoming chapter of accountancy using Blockchain. Available at www.alexpander.it ELTWERI, A. 2021. Diversity of Audit Committee Members and their Influence on Audit Fees. Available at www.alexpander.it

- ELTWERÍ, A. 2021. The Artificial Intelligence Ethical Implications in Auditing Public Sector. Available at www.alexpander.it ELTWERI, A. 2021. The Blockchain Impact on the Current Auditing Standards. Available at www.alexpander.it
- ELTWERI, A. 2021. The Corporate Governance Effects on the Audit Committees Performance. Available at www.alexpander.it
- ELTWERI, A. 2021. The Effects of Digitalization on Auditing Fees. Available at www.alexpander.it ELTWERI, A. 2021. The Impact of Cyber-Security on Audit Quality. Available at www.alexpander.it
- ELTWERI, A. and ABBAS, K. 2021. The Challenges Faces Businesses in Using Big Data. Available at www.alexpander.it
- ELTWERI, A. and CAVALIERE, M.L.P.L. 2020a. Impact of E-Accounting Practices upon the Performance of Business. PROCEEDINGS E-BOOK, 240.
- ELTWERÍ, A. and CAVALIERE, M.L.P.L. 2020b. Lessons in Corporate Governance to Learn from more Developed Countries. PROCEEDINGS E-BOOK, 57.
- ELTWERI, A. and FACCIA, A. 2022. Remote Auditing Implication on Audit Quality Owing to Covid-19. Available at www.alexpander.it ELTWERI, A. and FACCIA, A. 2022. Remote Auditing Implication on Audit Quality Owing to Covid-19. Available at www.alexpander.it ELTWERI, A. and FACCIA, A. 2022. The Use of Specialists on Audit Engagements. Available at www.alexpander.it
- ELTWERI, A. FACCIA, A. and KHASSAWNEH. O. 2021. Applications of Big Data within Finance: Fraud Detection and Risk Management within the Real Estate Industry. In 2021 3rd International Conference on E-Business and E-commerce Engineering (EBEE 2021), December 17–19, 2021, Sanya, China. ACM, New York, NY, USA, 7 pages. https://doi.org/10.1145/3510249.3510262
- ELTWERI, A., ALTARAWNAH, M., AL-HAJAYA 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, A.R. (2018) The Harmonising of Auditing Standards in Emerging Economies from The Stakeholders' Perspectives. Corporate Ownership and Control, 15, 201-212.

The International EFAL-IT BLOG

Information Technology innovations in Economics, Finance, Accounting, and Law Volume 3 – Issue 8/2022 – Bacau (Romania)

- ELTWERI, E., & ELTWERI, A. (2019). Does CSR encourage customer loyalty: A case study Libvan telecom sector? Journal of Governance & Regulation, 8(4), 64-81. https://doi.org/10.22495/jgrv8i4art6
- 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. (2020). New Technologies in Forensic Accounting and Auditing. www.alexpander.it
- FACCIA, A. 2020. Blockchain Financial Statement validation and submission. The very first case in 2020: Blockchain Italia S.r.l.. www.alexpander.it FACCIA, A. 2020. X-Accounting ® Towards a new Accounting System. Blockchain applied accounting. How robots will overcome humans in accounting Recording.
- www.alexpander.it
- FACCIA, A. SAWAN, N. ELTWERI, A. and BEEBEEJAUN. Z. 2021. Financial Big Data Security and Privacy in X-Accounting. A Step Further to Implement the Triple-Entry Accounting. In 2021 the 6th International Conference on Information Systems Engineering (ICISE 2021), November 12-14, 2021, Shanghai, China. ACM, New York, NY, USA, 6 pages. https://doi.org/10.1145/3503928.3503932
- Faccia, A., & Mosteanu, N. R. (2019). Accounting and blockchain technology: from double-entry to triple-entry. The Business & Management Review, 10(2), 108-116. FACCIA, A., DE LUCIA, C., ELTWERI, A., SAWAN, N. AND PIO LEONARDO CAVALIERE, L., 2020. 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., MOŞTEANU, N. R. (2019). Tax evasion information system and Blockchain. Journal of Information Systems & Operations Management, 13(1), 65-74.
- FACCIA, A., MOSTEANU, N. R., & LEONARDO, L. P. (2020, September). Blockchain Hash, the Missing Axis of the Accounts to Settle the Triple Entry Bookkeeping System. In Proceedings of the 2020 12th International Conference on Information Management and Engineering (pp. 18-23).
 FACCIA, A., MOȘTEANU, N. R., CAVALIERE, L. P. L., & MATARUNA-DOS-SANTOS, L. J. (2020, September). Electronic money laundering, the dark side of fintech:
- An overview of the most recent cases. In Proceedings of the 2020 12th International Conference on Information Management and Engineering (pp. 29-34). FACCIA, A., MOŞTEANU, N. R., CAVALIERE, L. P., L. & DE SANTIS, G. (2020). The rise of online banks in Italy "WIDIBA Bank" Case Study. Financial Markets, Institutions and Risks, 4(2).
- FACCIA, A., MOŞTEANU, N. R., FAHED, M. & CAPITANIO, F. (2019). Accounting Information Systems and ERP in the UAE. In Proceedings of 3rd International
- Conference on Cloud and Big Data Computing.

 FACCIA, A., MOSTEANU, N. R., FAHED, M., & CAPITANIO, F. (2019, August). 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).

 FAZZINI, M. and DAL MASO, L. (2016), "The value relevance of "assured" environmental disclosure: The Italian experience", Sustainability Accounting, Management
- and Policy Journal, Vol. 7 No. 2, pp. 225-245. https://doi.org/10.1108/SAMPJ-10-2014-0060
- LIU, Z. and BAI, Y. (2021). The impact of ownership structure and environmental supervision on the environmental accounting information disclosure quality of highpolluting enterprises in China. Environmental Science and Pollution Research. doi:10.1007/s11356-021-17357-x.
- MASUD, MD., BAE, S. and KIM, J. (2017). Analysis of Environmental Accounting and Reporting Practices of Listed Banking Companies in Bangladesh. Sustainability, 9(10), p.1717. doi:10.3390/su9101717.
- MOSTEANU, N. R. (2019). New Approach of Regional Development: Innovation through Green Economy and Artificial Intelligence. Vision 2025; Education Excellence and Management of Innovations through Sustainable Economic Competitive Advantage, p.188-204.
- MOŞTEANU, N. R. (2019). Principles of International Finance, Banking and Taxation. Editura Universitară, București.
- MOSTEANU, N. R. (2019). Regional development and Economic Growth approach in Europe and GCC. EcoForum, 8(2), p. 583-595.
- MOSTEANU, N. R., & FACCIA, A. (2020). Digital Systems and New Challenges of Financial Management-FinTech, XBRL, Blockchain and Cryptocurrencies. Quality-
- Access to Success, 21(174).

 MOSTEANU, N. R., & FACCIA, A. (2021). Fintech frontiers in quantum computing, fractals, and blockchain distributed ledger: Paradigm shifts and open Innovation. Journal of Open Innovation: Technology, Market, and Complexity, 7(1), 19.
- MOŞTEANU, N. R., FACCIA, A. & CAVALIERE, L. P. L. (2020). Digitalisation and green economy changes of business perspectives. In Proceedings of 4th International Conference on Cloud and Big Data Computing (ICCBDC), Liverpool, UK, August 26-28, 2020. p.118-122
- MOŞTEANU, N. R., FACCIA, A. & CAVALIERE, L. P. L. (2020). Disaster Management Digitalization and Financial Resources important factors to keep the organisation ongoing. In Proceedings of 4th International Conference on Cloud and Big Data Computing (ICCBDC), Liverpool, UK, August 26-28, 2020. p.108-112
- MOŞTEANU, N. R., FACCIA, A. (2021). Fintech Frontiers in Quantum Computing, Fractals, and Blockchain Distributed Ledger: Paradigm Shifts and Open Innovation. Journal of open Innovation: Technology, Market, and Complexity. 7(1), 1-19
- MOSTEANU, N. R., FACCIA, A., TORREBRUNO, G., TORREBRUNO, F. (2019). The newest intelligent financial decisions tool: fractals. A smart approach to assess the risk. The Business & Management Review, 10(2), 89-97.
 MOŞTEANU, N. R., FACCIA, A., TORREBRUNO, G., TORREBRUNO, F. (2019). Fractals- A Smart Financial Tool to Assess Business Management Decisions. Journal of
- Information Systems & Operations Management, 13(1), 45-56.
- MOŞTEANU, N.R. (2018). Zakat versus Income tax the real beneficiaries, International Journal of Scientific & Engineering Research, 9(6), p. 200-204.
- MOŞTEANU, N.R., FACCIA, A., CAVALIERE, L. P. L., & Bhatia, S. (2020). Digital Technologies' Implementation within Financial and Banking System during Socio Distancing Restrictions-Back to the Future. International Journal of Advanced Research in Engineering and Technology, 11(6), p. 307-315.
- NAWAISEH, K.H.A., ABD-ALKAREEM Al SHIBLY, M.H., ALAWAMLEH, H.A., ABBAS, K.M. and ORABI, T.G.A., 2021. Dimensions of corporate governance and organisational learning: an empirical study.
 Ogunode, O.A. (2022). Legitimacy Theory and Environmental Accounting Reporting and Practice: A Review. South Asian Journal of Social Studies and Economics,
- pp.17-28. doi:10.9734/sajsse/2022/v13i130345.
- PETRATOS, P., & FACCIA, A. (2019, August). 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).
- SAWAN, N., ELTWERI, A., DE LUCIA, C., PIO LEONARDO CAVALIERE, L., FACCIA, A. and ROXANA MOŞTEANU, N. 2020. Mixed and Augmented Reality Applications in the Sport Industry. 2020 2nd International Conference on E-Business and E-commerce Engineering of Conference.

 SUILEEK, H.A. and ALSHURAFAT, H. (2022). The Determinants of Environmental Accounting Disclosure: A Review of the Literature. Explore Business, Technology
- Opportunities and Challenges After the Covid-19 Pandemic, pp.463-477. doi:10.1007/978-3-031-08954-1_42.