Financial Statement Audits: Literature Review Regarding Advantages and Disadvantages for Accounting Firms When Employing Artificial Intelligence

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ABSTRACT

This paper reviews the literature regarding advantages and disadvantages for accounting firms from employing artificial intelligence, specifically ChatGPT, in their financial statement audits. ChatGPT is a generative artificial intelligence platform that can enhance overall audit quality by providing efficiencies in data processing, continuous learning, predictive analytics, continuous monitoring, and cost-effectiveness. However, the platform also brings concerns regarding data security and privacy, regulatory compliance, response reliability, industry-specific knowledge, and source data verification. According to the reviewed literature, addressing challenges such as the above requires collaboration between human auditors and the artificial intelligence platform, implementation of rigorous security measures, validation processes, and bias mitigation strategies. Despite these challenges, the literature argues that efficiencies may be gained from incorporating ChatGPT in financial statement audits resulting in a strategic investment for accounting firms seeking to enhance audit efficiency and effectiveness.

REFERENCES

Al-Baity, H. (2023). The AI revolution in digital finance in Saudi Arabia: A comprehensive review and proposed framework, *Sustainability, 15*(18), 5.

Alshurafat, H. (2023). The usefulness and challenges of chatbots for accounting professionals: Application on ChatGPT. 1-7. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4345921

Awatramani, H. (2023). How to utilise AI and ChatGPT to increase employee productivity. *Express Computer*. Retrieved from https://portal.lib.fit.edu/login?url=https://www.proquest.com/trade-journals/how-utilise-ai-chatgpt-increase-employee/docview/2839386142/se-2

Brook, D. (2011). Exploring the value of FS audits. *The Journal of Government Financial Management*, *60*(1), 38-43.

Debreceny, R., and Gray, G. (2014). A taxonomy to guide research on the application of data mining to fraud detection in FS audits. *International Journal of Accounting Information Systems*, *15*(4), 357-380.

Fedyk, A., Hodson, J., Khimich, N., and Fedyk, T. (2022). Is AI improving the audit process? *Review of Accounting Studies, 27*(1), 938-985.

Fotoh, L., and Mugwira, T. (2023). Exploring large language models (ChatGPT) in external audits: Implications and ethical considerations. SSRN. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4453835

Frackiewicz, M. (2023). The importance of continual learning in ChatGPT-3.5 and other AI language models. *TS2 SPACE*. Retrieved from https://ts2.space/en/the-importance-of-continual-learning-in-chatgpt-3-5-and-other-ai-language-models/#gsc.tab=0

Gao, X., and Feng, H. (2023). AI-driven productivity gains: AI and firm productivity. *Sustainability*, *15*(11), 8934.

Government Accountability Office (GAO). (2019). Assessing data reliability. (GAO-20-283G). Retrieved from https://www.gao.gov/assets/gao-20-283g.pdf

GRCCPE Team. (2023). Leveraging AI in auditing: The advantages of ChatGPT. ITCPEacademy.org. Retrieved from https://itcpeacademy.org/blog/aichatgptaudit

Gupta, M., Akiri, C., Aryal, K., Parker, E., and Praharaj, L. (2023). From ChatGPT to ThreatGPT: Impact of generative AI in cybersecurity and privacy. *IEEE Access*, *11*(1), 80218-80245.

Hacker, B. (2023). Will ChatGPT revolutionize accounting? The advantages of AI in accounting. ECONSTOR. Retrieved from https://www.econstor.eu/bitstream/10419/273360/1/1851793127.pdf

Kalla, D., and Smith, N. (2023). Study and analysis of ChatGPT and its impact on different fields of study. *International Journal of Innovative Science and Research Technology*, *8*(3), 827-833.

Lazarus, F., and Tatenda, M. (2023). The use of ChatGPT in external audits: Implications and future research. 1-56. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4453835

Ogunleye, J. (2014). The concepts of predictive analytics. *International Journal of Knowledge, Innovation and Entrepreneurship*, *2*(2), 82-90.

Ray, P. (2023). ChatGPT: A comprehensive review on background, applications, key challenges, bias, ethics, limitations and future scope. *Internet of Things and Cyber-Physical Systems*, *3* (1), 121-154.

Surameery, N., and Shakor, M. (2023). Use ChatGPT to solve programming bugs. *International Journal of Information Technology & Computer Engineering*, *3*(1), 17-22.