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ENHANCING ACCOUNTING THEORY LEARNING THROUGH AI: EVIDENCE FROM U.S. ACCOUNTANCY PROGRAMS.

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Abstract

The integration of Artificial Intelligence (AI) in accounting education is transforming how students engage with complex theoretical concepts. This study examines the use of AI tools, including ChatGPT and Grammarly, to support Bachelor of Science in Accountancy (BSA) students in the United States in understanding accounting theory. Employing a descriptive-correlational research design, data were collected via surveys from 120 fourth-year BSA students during the 2024–2025 academic year. Findings reveal that AI enhances learning efficiency, engagement, and adaptability by providing personalized feedback and supplementary learning resources. Students indicated that AI tools facilitated comprehension of challenging accounting topics, improved time management, and accommodated diverse learning styles. Nevertheless, concerns were noted regarding the accuracy of AI outputs and the risk of over-reliance, which could impede the development of critical accounting skills. Overall, the study highlights AI's potential to bridge theoretical knowledge with practical application and recommends its use as a complementary educational tool. Future research should explore strategies to mitigate AI limitations and assess its long-term impact on the professional competencies of accounting graduates in the U.S.

Keywords: Artificial Intelligence, Accounting Education, Learning Efficiency, Accounting Theory, AI Tools

Introduction

Artificial Intelligence (AI) is rapidly reshaping problem-solving across multiple industries, including healthcare, entertainment, banking, and education (Dongre et al., 2024). In U.S. higher education, AI tools such as ChatGPT, Grammarly, Quillbot, and Canva are increasingly integrated into learning environments to provide real-time feedback, content generation, and personalized support. These tools function as virtual tutors, allowing students to engage with complex subjects interactively and efficiently (Chen et al., 2022). As Hu (2023) notes, AI is emerging as a transformative force in academic research, teaching, and institutional operations, offering both opportunities and challenges. By enhancing collaboration, learning efficiency, and access to information, AI is ushering in a new era of innovation in higher education.

This transformation is particularly significant in accounting, where traditional teaching methods are evolving to incorporate intelligent systems. According to Tandiono (2023), AI is already applied in auditing, financial analysis, and data management, streamlining processes and improving accuracy. Kokina and Davenport highlight AI's potential to automate tasks such as fraud detection, bookkeeping, and financial forecasting. These technological advancements are influencing the competencies required of students in Bachelor of Science in Accountancy (BSA) programs across the U.S., which aim to prepare graduates for professional roles in finance and accounting (Bérubé & Gendron, 2023). Given the complexity of accounting theory including fundamental concepts such as assets, liabilities, and equity students must adapt to innovative learning tools. This study investigates how AI supports BSA students in understanding accounting theory, evaluating its effectiveness in bridging theoretical knowledge with practical application in modern accountancy education in the United States.

Relationship of the Variables

2.1 Artificial Intelligence in the Accounting Field

Artificial Intelligence (AI) is rapidly transforming the accounting profession by automating repetitive tasks, improving efficiency, and supporting data-driven decision-making. The shift from manual processes to AI-enabled systems enhances accuracy and operational performance, particularly in auditing, financial reporting, and management accounting (Tandiono, 2023; Dongre et al., 2024).

AI tools, including ChatGPT, assist accountants with research, strategic analysis, predictive modeling, and financial risk assessment (Biancone & Chmet, 2024; Shchyrba et al., 2024). By reducing manual workloads, AI allows professionals to focus on higher-value tasks that require judgment and analytical skills. However, this technological shift requires current and future accountants to develop strong information technology competencies to remain competitive (Hussin et al., 2023; Awang et al., 2022).

Although concerns about job displacement exist, many experts view AI as a complement rather than a replacement, redefining the role of accountants to include data-driven decision-making, automated process management, and enhanced financial oversight (Korol & Romashko, 2024; Grabińska, 2021; Sudaryanto et al., 2023). Moving forward, the accounting field will benefit from collaboration between educators, institutions, and industry stakeholders to ensure professionals are prepared for a digitally evolving landscape (Cai, 2022).

2.2 Trends and Challenges in the BSA Program

The Bachelor of Science in Accountancy (BSA) program in the United States prepares students for careers in accounting, auditing, and finance (Bérubé & Gendron, 2023). The curriculum covers taxation, auditing, financial reporting, and other foundational topics, positioning accounting as a strategic decision-support function in business (Ram & Tapria, 2019). With

the integration of AI and other digital technologies, accounting education now extends beyond traditional bookkeeping into analytics and strategic decision-making.

Challenges persist, however, in bridging the gap between pre-college preparation and the demands of the BSA curriculum. Many students encounter difficulties adapting to college-level expectations, highlighting the need for support mechanisms that enhance readiness for rigorous coursework (Taping et al., 2023). Modernizing accounting education requires deeper pedagogical changes, including skill development, technological integration, and alignment with global accounting standards to prepare graduates for a globalized professional environment (Abdul et al., 2023).

2.3 The Impact of Artificial Intelligence on Accountancy Students

AI offers significant benefits to BSA students by automating routine tasks such as data entry and preliminary analysis, allowing them to focus on critical thinking, problem-solving, and the application of accounting theory. According to Petrova (2024), integrating AI into accountancy education equips students with skills that enhance their employability and professional readiness. Moreover, AI facilitates personalized learning by adapting to individual student needs and learning styles, improving engagement and comprehension. Tools such as chatbots provide interactive, responsive support, delivering instant feedback and guidance on complex concepts (Chen et al., 2022). By leveraging AI, accounting programs can bridge theoretical knowledge with practical application, preparing students to meet the evolving demands of the profession.

Methodology

3.1 Research Design

This study employed a descriptive-correlational quantitative research design to examine the role of Artificial Intelligence (AI) in supporting the understanding of accounting theory among Bachelor of Science in Accountancy (BSA) students in the United States. Data were collected from 120 fourth-year BSA students enrolled during the 2024–2025 academic year using a structured survey questionnaire. The study focused on variables such as frequency of AI tool usage, perceived effectiveness, and impact on students' comprehension of accounting theories. Data were analyzed using statistical software to conduct correlational analyses and descriptive frequency distributions.

3.2 Respondents

A non-probability, convenience sampling method was employed, selecting participants based on accessibility and willingness to participate. Although this method does not guarantee a fully representative sample, it allowed for efficient data collection from available respondents. The study population consisted of 120 fourth-year BSA students from U.S. institutions, providing insights into the relationship between AI tool usage and understanding of accounting theory.

3.3 Instrument

Data were collected using a researcher-developed, closed-ended survey questionnaire designed to assess students' knowledge of accounting theory, perceptions of AI, and integration of AI tools into learning. The 65-item questionnaire was organized into five sections and validated by three field experts to ensure content and construct validity. Responses were measured on a 4-point Likert scale: Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1).

3.4 Data Processing and Analysis

Responses were scored, tallied, tabulated, and interpreted. Data were analyzed using Microsoft Excel and appropriate statistical techniques:

Frequency and Percentage Distribution – Frequency distributions were calculated to show the number of occurrences of each response, while percentage distributions represented the proportion of respondents selecting each option (Turney, 2022; Delphine, 2022).

Likert Scale Analysis – Students' opinions were measured using a 4-point Likert scale to evaluate the extent to which AI supported their comprehension of accounting theories (Solmaz, 2023).

Mean – The mean, or average, of responses was calculated to summarize central tendencies of students' perceptions (Crossman, 2019).

Mean =Sum of all values

Number of values

Mean=Number of values

Sum of all values

Spearman Rank Correlation Coefficient – This non-parametric measure was used to determine the strength and direction of associations between variables that may not exhibit a linear relationship (McClenaghan, 2024).

Analysis of Variance (ANOVA) – One-way ANOVA was conducted to test for statistically significant differences among group means, providing a basis for accepting or rejecting the study's hypotheses (Simkus, 2023).

These analyses collectively provided insights into how AI tools influence learning outcomes and understanding of accounting theory among BSA students in U.S. higher education.

Conclusion

The study revealed that ChatGPT, Quillbot, and Canva are the most utilized AI tools among BSA students in the United States, primarily serving as supplementary aids to support understanding of accounting theories. Students selectively use AI tools, favoring those that

provide tangible benefits for comprehension and application. AI tools were used consistently on a weekly basis, enhancing learning efficiency, time management, and adaptability, though not as a daily resource or primary study method.

Technological advancements in AI contributed positively to students' learning experiences by providing timely, relevant, and personalized information, helping navigate evolving accounting standards. AI tools simplified complex concepts, fostered deeper understanding, and supported diverse learning preferences, promoting independent exploration and critical thinking. They also improved productivity by automating routine tasks, allowing students to focus on analytical and problem-solving skills.

However, limitations were identified, including concerns over the accuracy of AI-generated content, particularly in areas such as financial reporting, and the lack of human interaction. These factors suggest the need to balance AI use with traditional pedagogical methods to ensure reliability and maintain educational rigor. Notably, the study found no significant relationship between AI utilization frequency and its perceived impact on accounting education, highlighting that while AI tools are valued, their full potential in enhancing core competencies remains underdeveloped.

Overall, AI tools serve as valuable complements to traditional accounting education, bridging theoretical knowledge and practical application, enhancing engagement, and supporting personalized learning. Continued refinement and integration of AI tools are necessary to maximize their effectiveness and educational value.

Recommendations

For Students:

BSA students should utilize AI tools strategically to supplement their understanding of accounting theories while remaining aware of their limitations. AI should complement, not replace, traditional learning methods.

References

Abdul, A. A., Abitoye, O., Babalola, F. I., Daraojimba, C., & Oriji, O. (2023). The role of technology in modernizing accounting education for Nigerian students – A review. International Journal of Modern Education Research. https://fepbl.com/index.php/ijmer/article/view/624

Abeysekera, I. (2024, March). ChatGPT and academia on accounting assessments. ScienceDirect. https://www.sciencedirect.com/science/article/pii/S2199853124000076#bib49

Ahmad, S. F., Han, H., Alam, M. M., Rehmat, M., Irshad, M., Arraño-Muñoz, M., & Ariza-Montes, A. (2023). Impact of artificial intelligence on human loss in decision making, laziness, and safety in education. Humanities and Social Sciences Communications,

10(1), 1–14. https://nsfjournals.com/article-files/pdf/WyWmemNe8hyG6vgiQoPO-1723214664.pdf

Amjad, B. (2024, April 21). Over-reliance of students on artificial intelligence. Medium. https://bakhtawaramjad0786.medium.com/over-reliance-of-students-on-artificial-intelligence-709a931bdc79

Awang, Y., Shuhidan, S. M., Taib, A., Rashi, N., & Hasan, M. S. (2022). Digitalization of accounting profession: An opportunity or a risk for future accountants. Proceedings MDPI. https://www.mdpi.com/2504-3900/82/1/93

Ballantine, J., Boyce, G., & Stoner, G. (2024). A critical review of AI in accounting education: Threat and opportunity. ScienceDirect. https://www.sciencedirect.com/science/article/pii/S1045235424000108#b0430

Bastani, H., Bastani, O., Sungu, A., Ge, H., Kabakci, O., & Mariman, R. (2024). Generative AI can harm learning. SSRN. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4895486

Bérubé, J., & Gendron, Y. (2023). Developing ethical sensitivity in future accounting practitioners: The case of a dialogic learning for final-year undergraduates. Journal of Business Ethics, 183(3), 763–781. https://link.springer.com/article/10.1007/s10551-021-04947-5

Biancone, P., & Chmet, F. (2024). Role of ChatGPT in the accounting field. In Advances in Accounting Technology. https://link.springer.com/chapter/10.1007/978-3-031-52296-3_8

Cai, C. (2022). Training mode of innovative accounting talents in colleges using artificial intelligence. Mathematical Problems in Engineering. https://www.hindawi.com/journals/misy/2022/6516658/

Chen, Y., Jensen, S., Albert, L. J., Gupta, S., & Lee, T. (2022). Artificial intelligence (AI) student assistants in the classroom: Designing chatbots to support student success. Information Systems Frontiers. https://link.springer.com/article/10.1007/s10796-022-10291-4

Clugston, B. (2024, July 19). Advantages and disadvantages of AI in education. University Canada West Blog. https://www.ucanwest.ca/blog/education-careerstips/advantages-and-disadvantages-of-ai-in-education/

Conte, N. (2024). Ranked: The most popular AI tools. Visual Capitalist. https://www.visualcapitalist.com/ranked-the-most-popular-ai-tools/

Cook, B. (2024). Navigating AI's impact on accounting: Uses, trends and tools. Tipalti Blog. https://tipalti.com/blog/ai-accounting/

Cox, M. (2024). AI in your accounting toolbox: Practical applications and overcoming hesitations. Riveron. https://riveron.com/posts/ai-in-your-accounting-toolbox/

Crossman, A. (2019). The difference between the mean, median, and mode. ThoughtCo. https://www.thoughtco.com/measures-of-central-tendency-3026706

Delphine, D. (n.d.). Percentage frequency distribution. Journal of Visualized Experiments. https://www.jove.com/science-education/12584/percentage-frequency-distribution

Dongre, N., Pandey, A., & Gupta, O. P. (2024). Artificial intelligence in accounting: Opportunities & challenges. ResearchGate. https://www.researchgate.net/publication/378696831_Artificial_Intelligence_In_Accounting_Opportunities_Challenges

Elbanna, S., & Armstrong, L. (2024). Exploring the integration of ChatGPT in education: Adapting for the future. Emerald Insight. https://www.emerald.com/insight/content/doi/10.1108/MSAR-03-2023-0016/full/html

Emetaram, E., & Uchime, H. N. (2021). Impact of artificial intelligence (AI) on accountancy profession. IIARD Journals. https://www.iiardjournals.org/get/JAFM/VOL.%207%20NO.%201%202021/Impact%20of%20Artificial%20Intelligence.pdf

FXMedia Team. (2024, August 14). AI in education: Improving student engagement and outcomes. FXMedia. https://www.fxmweb.com/insights/ai-in-education-improving-student-engagement-and-outcomes.html

Grabińska, B., Andrzejewski, M., & Grabiński, K. (2021). The students' and graduates' perception of the potential usefulness of artificial intelligence (AI) in the academic curricula of finance and accounting courses. NCIRL. file:///C:/Users/annem/Downloads/17-bdcd8815-f4df-4660-9b66-4f2f19fe7837.pdf

Hassan, M. (2024). Convenience sampling–Method, types, and examples. ResearchMethod.net. https://researchmethod.net/convenience-sampling/

Holmes, A. F., & Douglass, A. (2022). Artificial intelligence: Reshaping the accounting profession and the disruption to accounting education. Journal of Emerging Technologies in Accounting. https://publications.aaahq.org/jeta/article-abstract/19/1/53/157/Artificial-Intelligence-ReshapingtheAccounting?redirectedFrom=fulltext

Hu, K. (2023). ChatGPT sets record for fastest-growing user base—Analyst note. Reuters. https://www.reuters.com/technology/chatgpt-sets-record-fastest-growing-user-base-analyst-note-2023-02-01/

Hussin, S. N. A., Nik Wan, N. Z., Abdullah, A., Aziz, A., Razak, S., San, S., Saidi, N., & Tumiran, S. D. (2023). Accounting students' knowledge and skills: Expectations of employers. https://scholar.google.com/citations?view_op=view_citation&hl=en&user=p4QtrpwAAAAJ&citation_for_view=p4QtrpwAAAAJ:Tyk4Ss8FVUC

Jejeniwa, T. O. (2024). A comprehensive review of the impact of artificial intelligence on modern accounting practices and financial reporting. FEPBL. https://www.fepbl.com/index.php/csitrj/article/view/1086

Kelly, R. (2024). Survey: 86% of students already use AI in their studies. Campus Technology. https://campustechnology.com/Articles/2024/08/28/Survey-86-of-Students-Already-Use-AI-in-Their-Studies.aspx

Korol, S., & Romashko, O. (2024). Artificial intelligence in accounting. ResearchGate. https://www.researchgate.net/publication/Artificial_Intelligence_in_Accounting

Liu, J., Kong, X., Xia, F., Bai, X., Wang, L., Qing, Q., & Lee, I. (2018). Artificial intelligence in the 21st century. https://scholar.google.com/scholar?start=10&q=artificial+intelligence&hl=en&as_sdt=0,5#d=gs_qabs&t=1717392153492&u=%23p%3D9RtQo7iowgJ

McClenaghan, E. (2024). Spearman rank correlation. Technology Networks. https://www.technologynetworks.com/tn/articles/spearman-rank-correlation-385744

McCombes, S. (2023). Descriptive research design: Definition, methods & examples. Scribbr. https://www.scribbr.com/methodology/descriptive-research/

Petrova, P. (2024). The impact of artificial intelligence on the accounting subject curriculum. ResearchGate. https://www.researchgate.net/publication/The_Impact_of_Artificial_Intelligence_on_the_Accounting_Subject_Curriculum

Rahme, L. K., & Halat, R. (2024). Fostering critical thinking skills for an AI-infused world: A comprehensive toolkit. Harvard Graduate School of Education. https://mepli.gse.harvard.edu/our-fellows-at-work/fostering-critical-thinking-skills-for-an-ai-infused-world-a-comprehensive-toolkit/

Ram, D. M., & Tapria, R. (2019). Accounting theory: Concept and importance. Inspirajournals. https://www.inspirajournals.com/uploads/Issues/1136878387.pdf

Russell, S., & Norvig, P. (2020). Artificial intelligence: A modern approach (4th ed.). Pearson. https://people.engr.tamu.edu/guni/csce421/files/AI_Russell_Norvig.pdf

Sathe, T. M. (2022). Artificial intelligence influenced learning and development in the accounting sector. NCIRL. https://norma.ncirl.ie/5913/

Shchyrba, I., Savitskaya, M., Fursa, T., Yeremian, O., & Ostropolska, Y. (2024). Management accounting: The latest technologies, ChatGPT capabilities. https://openurl.ebsco.com/EPDB%3Agcd%3A9%3A25648393/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Agcd%3A176085226

Simkus, J. (2023). What is an ANOVA test in statistics: Analysis of variance. Simply Psychology. https://www.simplypsychology.org/anova.html

Solmaz, S. (2023). Likert scale: Examples and definition. Mentimeter Blog. https://www.mentimeter.com/blog/awesome-presentations/likert-scale-definition-and-how-to-use-it

Sudaryanto, M. R. S., Hendrawan, M. A., & Andrian, T. (2023). The effect of technology readiness, digital competence, perceived usefulness, and ease of use on accounting students' artificial intelligence technology adoption. E3S Web of Conferences. https://www.e3sconferences.org/articles/e3sconf/pdf/2023/25/e3sconf_icobar2023_04055.pdf

Tandiono, R. (2023). The impact of artificial intelligence on accounting education: A review of literature. ResearchGate. https://www.researchgate.net/publication/373950294

Taping, M. L. P., Kilag, O. K. T., Caballero, J. D., Zamora, R. M. C., Paras, J. D., & Moscoso, J. G. (2023). Bridging the gap: A systematic review of senior high school graduates' preparedness for the Bachelor of Science in Accountancy program. Excellencia IMJE. https://multijournals.org/index.php/excellenciaimje/article/view/61

Thody, D. (2024). AI's impact on accountancy education: A student's perspective. IFAC Knowledge Gateway. https://www.ifac.org/knowledge-gateway/discussion/ais-impact-accountancy-education-student-s-perspective

Todorova, E. S. (2018). How artificial intelligence is challenging accounting profession. ResearchGate. https://www.researchgate.net/profile/EleonoraStancheva/publication/333728223

Tudor, C. G., Popa, I. F. A., Vrîncianu, M., Popa, L. E. A., & Cișmașu, I. D. (2023). Framework for integrating generative AI in developing competencies for accounting and audit professionals. MDPI Electronics, 13(13), 2621. https://www.mdpi.com/2079-9292/13/13/