



The impact of generative AI on accounting teaching and learning practices in Papua New Guinea: A quantitative analysis of lecturer experiences

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Abstract

This study investigates the experiences of accounting lecturers in integrating Generative Artificial Intelligence (GenAI) into their teaching and learning practices within Papua New Guinea's specific educational landscape. As GenAI tools become increasingly prevalent, their implications for higher education—particularly in disciplines like accounting that require both theoretical understanding and practical application—warrant a thorough examination. This quantitative research employed a survey administered to 53 accounting lecturers from diverse tertiary institutions across the country. Using the Unified Theory of Acceptance and Use of Technology (UTAUT) as its foundational framework, the study examined perceptions, challenges, and benefits associated with GenAI integration.

The findings reveal a significant "Usage Gap" within the academic community. While lecturers hold strong positive perceptions of the long-term intention to use GenAI (Mean = 3.88) and its usefulness for improving teaching outcomes (Mean = 3.81), these internal motivations have not yet translated into high-frequency actual use. Notably, the hypothesis (H1) that behavioural intention would significantly influence actual usage was not supported ($p = .056$), suggesting that intention alone is insufficient for adoption in the PNG context.

The study identifies Facilitating Conditions—specifically, institutional support and infrastructure—as the lowest-rated dimension (Mean = 3.06), acting as a critical structural barrier to integration. Furthermore, the research challenges the "digital native" stereotype, finding that senior educators (aged 50 and above) reported a significantly higher intention to continue use (Mean = 4.28) than their youngest counterparts. The study concludes that successful GenAI adoption in PNG depends less on shifting educator attitudes and more on bridging the gap between high psychological readiness and the "last-mile" infrastructure required for daily classroom practice.

Keywords: Generative AI; accounting education; UTAUT; Papua New Guinea; usage gap; institutional infrastructure.

Introduction

Artificial intelligence (AI) is the technology that makes it possible for computers and other devices to mimic human autonomy, creativity, problem-solving, learning, and comprehension (Martineau, 2023). allows machines to mirror human behaviour, learn from mistakes, and adapt to new inputs (*Artificial Intelligence (AI)*, n.d.). It is developing at a rapid pace, which has profound effects on many industries, including accounting. The inclusion of AI in university courses has become crucial as technology develops to train upcoming accountants for the benefits and problems these tools will bring. Universities all throughout the world are realizing how important it is to integrate AI into their accounting curricula to guarantee that graduates have the abilities and know-how needed to succeed in an AI-driven world. (Ballantine et al., 2024). The deployment of several AI technologies, including machine learning, natural language processing, and robotic process automation, is necessary to integrate AI into accounting curriculum. By automating repetitive procedures, strengthening data analytic skills, and facilitating better decision-making, these technologies have the potential to revolutionize traditional accounting practices (Gonçalves et al., 2022). For instance, the Rutgers Business School has introduced an AI in Accounting and Assurance concentration, which explores the impact of AI on accounting functions and workflows, highlighting the transformative potential of these technologies (Rutgers Business School, 2024). There are various obstacles to overcome when incorporating AI into accounting curricula, despite the obvious advantages. These include the high implementation costs of AI technologies, the requirement for ongoing faculty development, and the moral issues raised by AI use in education (Brabete et al., 2024). Continuous curriculum revisions are also necessary to stay up with the quick developments in AI technology and make sure that the material is still applicable and in line with business demands (McNaughton, 2024).

Artificial intelligence describes machines that can act intelligently and are designed to carry out activities like pattern recognition, experience-based learning, decision-making, and problem-solving, which often call for human intelligence (Krauss, 2024). Using computers and other gadgets, artificial intelligence (AI) mimics the human brain's ability to solve problems and make judgments. People use artificial intelligence-enabled products such as language-generation software, social bots, and virtual agents (Asif & Gouqing, 2024). AI in Education significantly affects how learning is designed and delivered, and how teachers and students are using it. Artificial intelligence is already impacting higher education through chatbots and machine learning, and there are indications that the impact of developing technology on college life is only beginning. In addition to the advantages of assessment, admissions, student retention, and research efficiency, there are concerns over the environmental costs of processing large volumes of data and delegating human functions to computers, including writing (Times Higher Education, 2022). Four out of five students use generative AI in their studies, according to the QS Generative AI Academic and Student Surveys 2023, and more than two-thirds of students who are very or extremely familiar with generative AI tools believe that integrating technology into the curriculum is crucial. (Daniel, 2024). AI has the potential to solve some of the most pressing issues facing education today, revolutionise methods of instruction and learning, and hasten the achievement of SDG 4. Nevertheless, rapid technological advancements invariably bring with them several risks and difficulties that have so far outpaced discussions of policy and regulatory frameworks (UNESCO, 2023).

The landscape of accounting education is undergoing significant transformation as educators and institutions strive to bridge the gap between theoretical knowledge and practical application. Traditional approaches to teaching accounting have often emphasized the transmission of facts and procedures, focusing on teacher-centered methods that may limit students' ability to develop deeper conceptual understanding and critical thinking skills (Leveson, 2004). Recent research highlights the need for a shift toward student-centered learning, where students are encouraged to construct their own accounting concepts and engage more actively with the material (Leveson, 2004; Lucas, 2001).

Notwithstanding the growing recognition of these needs, accounting education frequently remains confined within narrowly defined disciplinary boundaries, prioritizing technical skills over broader, real-world relevance (Boyce, 2004). This has led to calls for curriculum reform that incorporates “tangential thinking” and connects accounting education to students' lived experiences and the socio-historical context of the discipline (Boyce, 2004). Furthermore, the integration of practical teaching methods is increasingly seen as essential for equipping students with the operational skills required in the profession, yet many programs continue to face challenges in effectively implementing such practices (Lu, 2022; Rajeevan, 2020).

To address these issues, innovative teaching strategies—including experiential learning, active learning, and the use of modern technologies—are being explored to enhance student engagement, motivation, and readiness for the demands of the accounting profession (Corina & Radu, 2020; Rajeevan, 2020; Sugahara & Dellaportas, 2018). As the accounting field continues to evolve, it is imperative that teaching and learning practices adapt accordingly to prepare graduates for success in a dynamic and complex professional environment.

A study by Harris (2024), shows that there is a lack of thorough, extensive quantitative research on faculty attitudes on the adoption of AI in various contexts, disciplines, and backgrounds. Generative AI (GenAI) offers significant opportunities in teaching and learning, such as enabling personalized support, diversifying educational materials, providing timely feedback, and innovating assessment methods, which can enhance student engagement and learning outcomes across disciplines and educational levels (Chan & Hu, 2023; Lee & Moore, 2024; Yan et al., 2024). GenAI can automate routine tasks, support creativity, and foster higher-order thinking, while also making learning more accessible and adaptive to individual needs (Forment et al., 2024; Law, 2024; Tillmanns et al., 2025; Yan et al., 2024). However, challenges include concerns about the accuracy and trustworthiness of AI-generated content, ethical dilemmas (such as academic integrity and privacy), and the risk of over-reliance on technology, and in which may undermine critical thinking and personal development (Chan & Hu, 2023; Forment et al., 2024; Huo & Siau, 2024; Law, 2024; Yan et al., 2024). The integration of GenAI also disrupts traditional assessment practices and raises questions about authorship and the authenticity of student work (Forment et al., 2024; Yan et al., 2024). Addressing these challenges requires cultivating AI literacy among students and educators, developing clear policies, and ensuring responsible, ethical use of GenAI tools (Chan & Hu, 2023; Chiu, 2024; Tillmanns et al., 2025; Yan et al., 2024). There is a consensus on the need for ongoing research to evaluate GenAI's impact on cognition, creativity, and educational equity, as well as the importance of professional development for educators (Chiu, 2024; Law, 2024; Tillmanns et al., 2025; Yan et al., 2024).

This study employs the Unified Theory of Acceptance and Use of Technology (UTAUT) as its foundational framework. The UTAUT model is used in the majority of studies

on general purpose systems and specialized business systems, with performance expectancy and behavioural intention being the best predictors. There are four factors directly determine technology acceptance and use, performance expectancy, effort expectancy, social influence, and facilitating conditions (Rajapakse, 2011; Rana et al., 2015; Sarfaraz, 2017; Thong et al., 2016), which are key constructs primarily influence a person's intention to use technology, which in turn predicts actual usage behaviour (Dwivedi et al., 2017; Rana et al., 2015; A. M. Rashid et al., 2024; Sarfaraz, 2017; Thong et al., 2016). By applying UTAUT, the researcher aims to systematically investigate the factors that drive or hinder accounting lecturers' intention to use and actual use of GenAI in their teaching and learning practices.

The findings of this research are expected to provide valuable insights for higher education institutions, policymakers, and curriculum developers in designing effective strategies for the integration of GenAI into accounting education. Understanding the determinants of adoption will enable the development of targeted professional development programs, the establishment of supportive technological infrastructures, and the formulation of clear guidelines for ethical and effective GenAI utilization. Ultimately, this study contributes to the broader understanding of technology adoption in specialized educational contexts, fostering an environment where accounting graduates are well-equipped for the evolving demands of the digital age.

Background

The rise of artificial intelligence (AI) is fundamentally transforming industries and reshaping societal paradigms. AI is driving automation, creating new markets and jobs, altering social structures, and introducing both opportunities and challenges across nearly every sector. AI is revolutionizing industries such as healthcare, finance, manufacturing, transportation, agriculture, and construction by automating tasks, optimizing processes, and enabling new business models (Ahmed et al., 2022; Rane, 2023; A. Rashid & Kausik, 2024). In manufacturing, AI enables intelligent machines to self-monitor, diagnose, and predict maintenance needs, reducing downtime and increasing efficiency (Ahmed et al., 2022). The integration of AI with IoT and big data in construction (Construction 4.0/5.0) leads to smarter, more sustainable practices and better resource management (Rane, 2023). AI enhances diagnostics, personalizes medicine, and improves public health surveillance, but also raises concerns about data privacy and workforce changes (García, 2025). AI automates routine jobs but also creates new roles in AI management, development, and ethics, requiring adaptive skills and new policy frameworks (Damioli et al., 2024; Khogali & Mekid, 2023; Tabbassum et al., 2024). AI alters social connections, redistributes labour, and can intensify social stratification, leading to new forms of cooperation and potential fragmentation (Agarwal, 2024; Derkach, 2024; Khogali & Mekid, 2023). The rapid spread of AI raises ethical dilemmas, privacy concerns, and the need for transparent, human-centered, and secure systems (Ahmed et al., 2022; Annoni et al., 2018; Derkach, 2024; A. Rashid & Kausik, 2024). AI expands access to complex computations and can generate solutions beyond human understanding, transforming how societies organize and make decisions (Damioli et al., 2024; Derkach, 2024; Annoni et al., 2018).

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generation software, social bots, and virtual agents (Asif & Gouqing, 2024). AI in Education significantly affects how learning is designed and delivered, and how teachers and students are using it. Artificial intelligence is already impacting higher education through chatbots and machine learning, and there are indications that the impact of developing technology on college life is only beginning. In addition to the advantages of assessment, admissions, student retention, and research efficiency, there are concerns over the environmental costs of processing large volumes of data and delegating human functions to computers, including writing (Times Higher Education, 2022).

The integration of generative AI into teaching and learning is transforming educational practices by enabling more personalized, efficient, and engaging experiences. Generative AI can enhance learning satisfaction, support self-regulated learning, and improve teaching effectiveness, but its benefits are maximized when combined with teacher supervision and robust guidelines. Challenges such as misinformation, ethical concerns, and the need for AI literacy remain important considerations. Generative AI tools can tailor learning experiences, provide immediate feedback, and stimulate active student engagement, leading to higher learning satisfaction and confidence, especially when teachers act as facilitators and guides (Alammari, 2024; Mulyani et al., 2025; Yang & Kong, 2024; Zhang et al., 2025). Teachers report improved ease of use, usefulness, and enhanced teaching performance when integrating generative AI, particularly for developing learning materials and supporting student-focused learning (Alammari, 2024; Hernández et al., 2025; Mulyani et al., 2025). AI tools help students develop self-regulation by encouraging attentiveness, reflection, and individualized learning pathways (Hernández et al., 2025; Yan et al., 2024; Yang & Kong, 2024).

Generative AI (GenAI) is rapidly transforming the accounting profession by reshaping required skills, enhancing data analysis, and influencing daily operations and decision-making. GenAI is driving a shift in the competencies needed for accounting professionals, emphasizing data interpretation, risk management, and the integration of advanced AI tools into organizational systems. As accountants transition from traditional bookkeeping to more analytical and strategic responsibilities, GenAI raises the need for them to be skilled in evaluating and understanding complicated data. Since AI presents both potential and problems in terms of data security and ethical considerations, adoption of GenAI necessitates heightened awareness of new risks and the capacity to handle them effectively. Since GenAI technologies are developing quickly and experts must adjust to new tools and processes, it is imperative that they continuously upskill (Anica-Popa et al., 2024).

The rapid rise of Generative AI (GenAI) and technological advancements is creating new pressures on accounting lecturers to better prepare students for a changing professional landscape. The introduction of large language model (LLM)-based systems in accounting education allows for collaborative learning and practical application of GenAI capabilities, helping students understand real-world scenarios and decision-making processes (Anica-Popa et al., 2024). Accounting programs are evolving to include GenAI-related content, ensuring that students are equipped with the knowledge to leverage AI tools effectively in their future careers (Anica-Popa et al., 2024). Lecturers must now focus on equipping students with AI literacy, critical thinking, and practical skills to responsibly and effectively use GenAI tools in accounting and related fields. Students need strong AI literacy, critical thinking, and ethical awareness to engage with GenAI (Krause et al., 2025). Gaps remain in areas like prompt engineering, recognizing bias, and managing AI-generated outputs. Students prefer hands-on, project-based learning with GenAI, emphasizing real-world applications over purely theoretical instruction (Krause et al., 2025). Lecturers are encouraged to integrate GenAI into

the curriculum, focusing on both technical skills and ethical considerations. This includes designing assignments that require the use of GenAI tools and teaching students how to critically assess AI outputs (Krause et al., 2025). Coercive (e.g., policy mandates) and normative (e.g., professional standards) pressures significantly influence lecturers' intentions to adopt technology-enhanced, student-centred teaching methods. Mimetic pressures (copying peers) are less influential (Teh et al., 2021). There is growing pressure to align accounting education with labour market demands by embedding authentic, practical experiences—such as work-integrated learning (WIL)—to ensure students are career-ready in a tech-driven environment (Jackson & Meek, 2020).

The adoption of Generative AI (GenAI) in accounting education offers significant opportunities but also presents notable challenges for lecturers. Key obstacles include concerns about academic integrity, lack of clear guidelines, insufficient training, and uncertainty about effective assessment methods. GenAI increases the risk of academic dishonesty, especially in unsupervised assessments like lab reports and written assignments, making it harder to verify genuine student learning (Nikolic et al., 2024, 2025). Traditional assessments may not effectively measure all learning objectives (cognitive, psychomotor, affective) in the presence of GenAI. There is limited guidance on how to adapt assessments to ensure validity and integrity (Nikolic et al., 2025). Many universities lack comprehensive frameworks or clear policies for GenAI adoption, leaving lecturers uncertain about best practices and ethical boundaries (Nikolic et al., 2024; Shailendra et al., 2024). There is a scarcity of formal training and systematic support for lecturers, which limits their ability to integrate GenAI effectively into teaching and learning (Nikolic et al., 2024; Shailendra et al., 2024).

However, the successful integration of GenAI is contingent upon the willingness and capability of accounting lecturers to adopt and effectively utilize these tools. There was uncertainty and diverse attitudes towards GenAI adoption among academics. This is with unclear responsibilities and the parties within the academic process. Lecturers recognize the potential benefits of GenAI for efficiency and teaching enhancement but remain cautious due to ethical and practical concerns (Nikolic et al., 2024). The diversity of attitudes highlights the need for ongoing discussion and shared understanding within academic communities (Nikolic et al., 2024). The absence of a clear adoption framework makes it difficult to define the roles of lecturers, students, and administrators in the GenAI integration process (Shailendra et al., 2024). There is a need for objective methods to measure the effectiveness and outcomes of GenAI adoption in accounting education (Shailendra et al., 2024).

Despite the apparent benefits, concerns regarding data security, academic integrity, the reliability of AI-generated content, and the need for new pedagogical skills pose significant barriers to adoption. Therefore, understanding the specific factors that influence accounting lecturers' acceptance and use of GenAI is critical. This section provides the necessary background, highlighting the broader technological context and the specific implications for the accounting profession and its educational arm, setting the stage for a detailed investigation into lecturer adoption behaviours.

Papua New Guinea and other countries in the Pacific addressed the issue of GenAI effect in education. University of the South Pacific Vice-Chancellor Professor Pal Ahluwalia, during 2025 Conference of the Pacific Island Education Ministers, stated that Ministers were worried about falling behind the AI and ICT discussions that dominated the world. To help instructors reach every child, Ministers have assigned national and regional organizations the responsibility of creating an action plan for implementing AI and ICT (Wesley, 2025). The use

of artificial intelligence in higher and technical education has evolved in wealthy nations in the era of digital technology, while developing nations like PNG will need some time to catch up (DHERST, 2021). For the Academic Year 2024, the then Minister of Higher Education, Research, Science, Technology and Sport planned to address AI and Digital Ethics through workshops to explore the ethical landscape in the age of intelligent machine (Polye, 2024). DHERST issued a Policy on Digitalization of Papua New Guinea Universities and Research Institutes in 2025 to address key Digitalization. To ensure responsible use of AI, DHERST focuses on developing academic policies, ethical AI usage promotion, Supporting AI adoption in academia, monitoring and mitigation Risks of AI usage, and Awareness Building (*Policies - Policy on Digitalization of Papua New Guinea Universities and Research Institutes - DHERST*, 2025).

Don Bosco Technological Institute Boroko participated in an online session on Artificial Intelligence: Challenge of our time,” which was hosted by the EAO Social Communication School of Formation, which discusses the concept of AI, how to make use of it, and how it can be used on a pedagogical basis (Vracovsky & Pereira, 2023). In order to prevent the learning process from undermining human intellect, Divine Word University's Department of Mathematics & Computing Science is aggressively incorporating cutting-edge AI technology (Nabilah, 2023). IBS University in Port Moresby adopted a policy to guide artificial intelligence usage in assessments, which will utilize the similarity detection software as part of the indication of AI usage (IBSUniversity, 2023). This shows that the higher education institutions in Papua New Guinea are acting on the effect of the GenAI in tertiary education.

Statement of the problem

The profound and rapidly evolving impact of Generative AI (GenAI) is reshaping various sectors, particularly higher education and the accounting profession in Papua New Guinea. While GenAI tools offer significant potential to revolutionize accounting teaching—through personalized learning, automated content creation, and enhanced student engagement—their widespread and effective integration by accounting lecturers remains a critical challenge.

Despite the clear imperative for educators to adapt, a discernible gap exists between GenAI's theoretical benefits and its practical adoption. Many accounting lecturers grapple with complex considerations, including ethical implications, data security, maintaining academic integrity, and ensuring AI output reliability. Furthermore, successful GenAI integration demands new pedagogical skills and a re-evaluation of existing teaching practices, which aren't always readily available or easily acquired.

Currently, there's limited understanding of the specific factors influencing accounting lecturers' willingness to adopt and utilize GenAI. Without clear insight into these determinants—such as perceived usefulness, ease of use, social influences, or organizational support—efforts to promote GenAI integration risk inefficiency. This lack of understanding can lead to suboptimal implementation strategies and missed opportunities to leverage GenAI for enhancing accounting education and preparing students for the future of the profession. This study aims to address this critical gap by systematically investigating these influencing factors through the lens of the Unified Theory of Acceptance and Use of Technology (UTAUT).

Significance of study

The significance of this study is multi-faceted, offering valuable contributions to academia, educational practice, and policymaking within Papua New Guinea's higher education landscape.

Academic contributions

This study fills a significant void in the literature by offering quantitative information on the effects of generative artificial intelligence (GenAI) on accounting education in Papua New Guinea. While GenAI's revolutionary potential in higher education has been extensively studied globally, localized research is noticeably lacking. By concentrating on this particular geographic and educational environment, the study adds fresh empirical perspectives, enhancing the worldwide knowledge of technology adoption. The Unified Theory of Acceptance and Use of Technology (UTAUT) model's theoretical soundness is further strengthened by validating its applicability in a hitherto understudied area.

Implications for educational practice and policy

The results will provide Papua New Guinean higher education institutions and accounting lecturers with useful advice for instructional practice. The study will determine the main forces behind and obstacles to GenAI adoption, examining elements like Performance Expectation, Effort Expectancy, Social Influence, and Facilitating Conditions. This knowledge can guide the creation of focused training curricula, resource allocation plans, and support systems, leading to more effective instruction and better student learning outcomes.

Lastly, this study offers vital evidence for Papua New Guinea's educational administrators and policymakers at the policy level. The knowledge gathered on institutional support and enabling conditions can guide the development of well-informed policies and strategic efforts for technology integration. This fosters a supportive environment that encourages creativity and equips students with critical 21st-century skills pertinent to the changing accounting profession.

Objectives of the study

The study aims to examine the relationship between the performance expectation, effort expectancy, social influence, facilitating conditions and behavioural intentions of the accounting lecturers with the usage of GenAI.

Specifically, this study will answer the following questions:

1. How do accounting lecturers perceive the impact of GenAI tools on improving their teaching effectiveness and student learning outcomes?
2. What are accounting lecturers' perceptions of the ease of use and learning curve associated with integrating GenAI into their teaching practices?
3. To what extent do colleagues, institutional leadership, and student expectations influence accounting lecturers' decisions to adopt GenAI in their teaching?
4. What institutional support, resources, and infrastructure are available to accounting lecturers for the effective use of GenAI in teaching and learning?
5. What factors influence accounting lecturers' intentions to continue using GenAI tools in their future teaching practices?

Hypothesis

Based on the synthesis of existing literature and the identified research gap concerning Generative AI (GenAI) adoption in higher education, particularly within accounting, the following hypotheses are proposed:

H1: Behavioural Intention will positively influence accounting lecturers' Actual Usage (AU) of GenAI in their teaching and learning activities.

Theoretical framework

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a widely used framework for understanding how and why people adopt and use new technologies. It identifies key factors that influence user acceptance and behaviour, making it a foundational model in technology adoption research.

Core components of UTAUT

UTAUT proposes that four main factors directly determine technology acceptance and use:

- Performance Expectancy: Belief that using the technology will provide benefits or improve performance.
- Effort Expectancy: Perceived ease of use of the technology.
- Social Influence: The degree to which important others influence one's decision to use the technology.
- Facilitating Conditions: The extent to which an individual believes that organizational and technical infrastructure exists to support use (Rajapakse, 2011; Rana et al., 2015; Sarfaraz, 2017; Thong et al., 2016).

These constructs primarily influence a person's intention to use technology, which in turn predicts actual usage behaviour (Dwivedi et al., 2017; Rana et al., 2015; A. M. Rashid et al., 2024; Sarfaraz, 2017; Thong et al., 2016).

UTAUT has been applied across various domains, including business systems, mobile banking, and especially in higher education to study technology adoption among students and educators (Rana et al., 2015; A. M. Rashid et al., 2024; Sarfaraz, 2017). Researchers have proposed adding new factors such as culture, technology compatibility, user education, and personal innovativeness to improve the model's explanatory power in different contexts (Bharti & Taneja, 2021; Rajapakse, 2011; Thong et al., 2016; Tsigna et al., 2022). UTAUT's predictive power can vary across studies and contexts, and it may not fully capture all relevant factors, especially cultural influences and context-specific variables (Rajapakse, 2011; Thimbleby et al., 2007; Thong et al., 2016; Tsigna et al., 2022; Williams et al., 2015).

UTAUT is a robust and influential model for predicting technology acceptance and use, focusing on performance, effort, social influence, and facilitating conditions. While highly effective in many settings, ongoing research continues to refine and extend the model to address its limitations and adapt it to diverse contexts.

Literature review

Performance expectation link in GenAI usage for teaching and learning

Performance expectation consistently emerges as the strongest predictor of behavioural intention to use new technologies, including GenAI, in higher education settings. Lecturers are

more inclined to adopt GenAI if they expect it will enhance their teaching performance or student learning outcomes (Agustin & Mulyani, 2018; Azam et al., 2019; Jang, 2024; Khatibi et al., 2020; A. M. Rashid et al., 2024; K. Wang et al., 2024). Studies specifically involving accounting lecturers show that when they perceive GenAI or e-learning systems as beneficial for their teaching effectiveness, their intention to use these technologies increases (Agustin & Mulyani, 2018). In research on GenAI adoption, performance expectation is directly linked to lecturers' intention to use these tools, even if it does not always correlate with satisfaction. The belief that GenAI will help them achieve better teaching results is a primary motivator for adoption (Baig & Yadegaridehkordi, 2025; Jang, 2024; K. Wang et al., 2024).

Although performance expectation is key to GenAI adoption, factors like ease of use, support, and ethics also shape intent. Lecturers expecting high performance from GenAI are more innovative; others may need extra encouragement to fully utilize it. While performance expectation is crucial, other factors like effort expectancy (ease of use), facilitating conditions (support/resources), and ethical considerations also play roles in shaping intention and satisfaction, but performance expectation remains the most influential for intention (Agustin & Mulyani, 2018; Azam et al., 2019; Baig & Yadegaridehkordi, 2025; Khatibi et al., 2020; A. M. Rashid et al., 2024; K. Wang et al., 2024). Lecturers with high performance expectation are more likely to innovate and use GenAI creatively, while those with lower expectations may need additional support or encouragement (Azam et al., 2019; Tondeur et al., 2019).

Performance Expectation is the primary driver for accounting lecturers adopting Generative AI. If lecturers believe GenAI will enhance teaching effectiveness or student outcomes, they are highly likely to use it. While ease of use and support matter, the perceived benefits of improved teaching results are the strongest motivator for GenAI integration.

Effort expectancy as a factor in GenAI usage in teaching and learning

Studies show that when accounting educators perceive digital technologies (including GenAI) as easy to use, their intention to use these technologies in teaching increases. Effort Expectancy, along with Performance Expectancy and Social Influence, is a significant predictor of behavioural intention to use digital tools in accounting education (Zainuddin & Man, 2024). For academic staff, higher Effort Expectancy is also linked to greater satisfaction with GenAI tools, which in turn supports ongoing use in educational settings (Baig & Yadegaridehkordi, 2025). While Performance Expectancy (belief that GenAI will improve teaching outcomes) often has the strongest influence, Effort Expectancy remains a crucial factor, especially for initial adoption and satisfaction (Baig & Yadegaridehkordi, 2025; A. M. Rashid et al., 2024; Zainuddin & Man, 2024). Across higher education, Effort Expectancy consistently emerges as a key driver for technology adoption among educators, not just students. When technologies are perceived as user-friendly, adoption rates are higher (Baig & Yadegaridehkordi, 2025; A. M. Rashid et al., 2024; Zainuddin & Man, 2024). Providing training and support to make GenAI tools easier to use can further boost adoption among accounting lecturers (Zainuddin & Man, 2024).

Effort Expectancy, or the perceived ease of use, significantly drives accounting lecturers' adoption of Generative AI. When GenAI is seen as user-friendly, lecturers are more inclined to integrate it into teaching, leading to higher satisfaction and sustained use. While Performance Expectancy is vital, Effort Expectancy remains crucial for initial adoption.

Social influence's effect in GenAI usage in teaching and learning

The Unified Theory of Acceptance and Use of Technology (UTAUT) highlight Social Influence as a key factor in technology adoption. The research shows that Social Influence can play a significant but sometimes variable role in shaping GenAI adoption in educational settings.

There are different types of Social Influence: Coercive Pressure, which comes from formal requirements or expectations set by authorities or management. When university leadership or policy mandates the use of GenAI or similar technologies, lecturers feel compelled to adopt these tools in their teaching practices; Normative Pressure, which arises from the expectations of peers and the broader academic community. If colleagues and professional networks value or expect the use of GenAI, lecturers are more likely to integrate it into their teaching to align with these norms; and Mimetic Pressure, which involves imitating the practices of others, especially when there is uncertainty. However, in the context of accounting lecturers, mimetic pressure was found to have no significant effect on their intention to use technology like GenAI (Teh et al., 2021).

Social influence, driven by institutional and peer expectations, significantly boosts educators' GenAI adoption. This effect is amplified with institutional support and clear policies, working best alongside other motivators like performance expectation. Social Influence in UTAUT can be broken down into coercive (institutional mandates), normative (peer expectations), and mimetic (copying others) pressures. In accounting education, coercive and normative pressures are more likely to increase educators' intention to use technology-enhanced teaching methods, while mimetic pressures are less impactful (Teh et al., 2021). The encouragement or expectations from colleagues, department heads, or university policies can positively affect educators' willingness to adopt GenAI tools for teaching and learning (Eldakar et al., 2025; Teh et al., 2021; Tondeur et al., 2019; K. Wang et al., 2024). Institutional support, such as training and clear guidelines, amplifies the effect of Social Influence by making GenAI adoption more acceptable and feasible within academic communities (Eldakar et al., 2025; Sheridan et al., 2024; Tondeur et al., 2019).

Institutional support and pressures, and clear policies, alongside with other factors such as training and performance expectancy can have a big impact in technology adoption when paired with social influence. It is more effective when combined with institutional support and clear policies (Eldakar et al., 2025; Sheridan et al., 2024; Tondeur et al., 2019) (Sheridan et al., 2024; Eldakar et al., 2025; Tondeur et al., 2019). Its impact can differ by user group: educators, students, and staff may respond differently to peer and institutional pressures (Jang, 2024; Teh et al., 2021; Tondeur et al., 2019; K. Wang et al., 2024) (Jang, 2024; Teh et al., 2021; Tondeur et al., 2019; K. Wang et al., 2024). Social Influence alone may not always be enough; it works best alongside other factors like performance expectancy, ethical considerations, and training opportunities (Baig & Yadegaridehkordi, 2025; Eldakar et al., 2025; Jang, 2024; Palacios-Rodríguez et al., 2025; Sheridan et al., 2024). Based on Bogalin et al., (2025) study of institutions of higher learning in Papua New Guinea, Only 19% of lecturers expressed a significant interest in integrating GenAI, while the majority supported its use with reservations, further highlighting a cautious posture. These discrepancies highlight the need for explicit policies, teacher preparation, and inclusive technology methods because they reflect a larger institutional ambiguity about the pedagogical and ethical implications of AI in higher education.

Social Influence, from coercive mandates and normative peer expectations, significantly impacts GenAI adoption in accounting education. While mimetic pressure has less effect, institutional support and clear policies amplify adoption. This influence is most effective when combined with other factors like performance expectancy and training, acknowledging varying impacts across different user groups.

Facilitating conditions of GenAI and its influence to integrate it in teaching and learning

Facilitating conditions significantly influence GenAI adoption by lecturers. Adequate support, resources, and training increase confidence and reduce risk, encouraging integration. Facilitating conditions have a significant positive effect on actual use behaviour, meaning that when lecturers perceive adequate support, resources, and infrastructure, they are more likely to use generative AI tools in their teaching (Bolívar-Cruz & Verano-Tacoronte, 2025; Khan et al., 2022; Nakembetwa et al., 2023; H. Wang et al., 2025). The availability of training programs and technical support increases lecturers' confidence and competence in using generative AI, making adoption more likely (Khan et al., 2022; Mudhsh et al., 2024; Sheridan et al., 2024). Clear guidelines, policies, and institutional encouragement further reinforce lecturers' willingness to integrate generative AI, as these reduce uncertainty and perceived risk (Fahimirad et al., 2023; Khan et al., 2022; Sheridan et al., 2024).

However, the impact may vary based on existing resources and individual factors, highlighting the need for tailored strategies. If lecturers feel existing resources are already adequate, additional facilitating conditions may not further increase their intention to adopt new tools (Hafizh et al., 2024). The impact of facilitating conditions can vary by gender and personal attitudes, suggesting the need for tailored support strategies (Bolívar-Cruz & Verano-Tacoronte, 2025; H. Wang et al., 2025).

Facilitating conditions are crucial for lecturers' GenAI adoption. Adequate support, resources, training, and clear policies boost confidence and reduce risk, encouraging integration. However, their impact varies based on existing resources and individual factors like gender and attitudes. This means tailored support strategies are essential for successful GenAI implementation in education.

Research gap

The existing literature extensively explores the transformative potential of Generative AI (GenAI) in higher education, particularly in accounting and business courses. Studies consistently highlight how GenAI enhances lecturer effectiveness by enabling the creation of engaging, interactive learning experiences, shifting their role towards facilitation and ethical AI integration. Concurrently, GenAI demonstrably improves student satisfaction, attention, and confidence through personalized support and immediate feedback. Furthermore, the capacity of GenAI to adapt content to individual learning styles and to foster crucial 21st-century skills (e.g., data analysis, critical thinking) is well documented. The importance of Performance Expectation in driving lecturer adoption, alongside the influence of Effort Expectancy (ease of use) and Social Influence (coercive and normative pressures), is well-established within the UTAUT framework. Finally, the critical role of Facilitating Conditions—such as adequate resources, training, and clear policies—in promoting the actual use of GenAI is acknowledged.

However, there were few studies conducted in Papua New Guinea on accounting lecturers' attitudes towards the impact of Generative AI on Accounting Teaching and Learning. The aim of this study is to address the gap by providing quantitative data on the effects of GenAI on teaching and learning in accounting subjects.

Methodology

Research design

This study adopted a quantitative research design to investigate the experiences of accounting lecturers in integrating Generative Artificial Intelligence (GenAI) into their teaching and learning practices. The goal of quantitative research is to measure data and extrapolate results from a study sample from multiple angles. To support the hypothesis generated in a particular study, quantifiable data must be gathered, examined, and interpreted (Ghanad, 2023).

Participants and sampling

The target population for this study comprised accounting lecturers currently employed in diverse tertiary institutions. A total of 50 accounting lecturers were invited to participate in the study. A non-probability sampling method, specifically convenience or purposive sampling, was employed to recruit participants, given the specialized nature of the target group. Convenience sampling is the technique of gathering data from a research population that the researcher can easily access (Rahi, 2017 as cited in Golzar et al., 2022). Purposive sampling is a collection of non-probability sampling methods where units are chosen based on the qualities you require in your sample (Nikolopoulou, 2022). Participants were selected based on their active roles in teaching accounting courses at the tertiary level and their potential exposure to or interest in GenAI tools. The aim was to capture a broad range of experiences from various institutional contexts.

Data collection instrument

Data was collected using a structured online survey questionnaire. The survey instrument was designed to gather quantitative data on several key aspects of GenAI integration. It included sections on:

- Demographic Information: Such as age, gender, years of teaching experience, and institution type.
- Perceived impact of GenAI on improving teaching effectiveness and student learning outcomes.
- Perceptions on ease of usage and learning curves related to integration of GenAI into the teaching practices.
- Extent of expectations from colleagues, institutional leadership, and students influences the decisions to adopt GenAI in teaching and learning.
- The availability of institutional support, infrastructure and resources for the accounting lecturers in effective use of GenAI in teaching and learning.
- Factors influencing the continued usage of GenAI tools in future teaching and learning practices.

The questionnaire utilized primarily closed-ended questions, including multiple-choice and 5-point Likert scales, to facilitate quantitative analysis. A pilot study was conducted with a small group of accounting lecturers to ensure the clarity, validity, and reliability of the survey instrument before full-scale administration.

Data analysis

The collected quantitative data were analysed using SPSS. Descriptive statistics (e.g., means, standard deviations, frequencies, percentages) were used to summarize the demographic characteristics of the participants and to provide an overview of the extent of GenAI adoption and lecturers' perceptions. Inferential statistics were applied to explore relationships and test hypotheses:

- **Correlation Analysis:** To identify statistically significant correlations between professional development, institutional support, and the effective utilization of GenAI.
- **Regression Analysis:** To determine key predictors of GenAI usage, assessing the influence of various independent variables on the adoption and perceived effectiveness of GenAI.
- **Comparative Analysis:** To compare perceptions and integration levels across different demographic groups or institutional contexts, if applicable.

The level of significance (α) for all statistical tests was set at $p < 0.05$.

Ethical considerations

The study adhered to strict ethical guidelines. Informed consent was obtained from all participants prior to their involvement in the survey. Participants were assured of anonymity and confidentiality, with no personally identifiable information collected. Data were stored securely and only accessible to the research team. Participants were informed of their right to withdraw from the study at any point without penalty.

Findings and results

The following sections present the empirical results of the study, analysed using IBM SPSS Statistics (Version 27.0). The analysis begins with a descriptive profile of the sample, followed by inferential statistical tests—including Independent Samples T-tests and One-Way ANOVA—to examine variations in perceptions of Generative AI (GenAI) across different demographic and institutional contexts.

Demographic and institutional profile of respondents

The study surveyed a total of 53 accounting educators currently active in higher education institutions across Papua New Guinea. This profile is essential for contextualizing the subsequent analysis of GenAI perceptions and usage.

Gender and age distribution

The participant pool was predominantly male, with 37 respondents (69.8%) identifying as male and 16 (30.2%) as female. The age profile indicates a mature cohort; the largest group was the 31–40 age bracket ($n = 18$, 34.0%), followed by early-career educators under 30 ($n = 14$,

26.4%). Senior academics aged 41–50 and those over 50 together comprised approximately 40% of the sample, providing a balanced view across different career stages.

Institutional and geographic context

The sample reflects a balanced representation of the Papua New Guinean higher education sector, with 49.1% ($n = 26$) from state-run universities and 45.3% ($n = 24$) from private institutions. Geographically, there is a significant concentration in the National Capital District (60.4%), consistent with its status as the nation's educational hub. Other represented provinces included Morobe (15.1%), Madang (9.4%), and East New Britain (7.5%).

Table 1 Case Processing Summary: Respondent Profile ($N=53$)

Category	Classification	Frequency (n)	Valid Percent (%)
Gender	Male	37	69.8
	Female	16	30.2
		53	100.0
Age Group	Under 30	14	26.4
	31–40	18	34.0
	41–50	11	20.8
	51 and above	10	18.9
		53	100.0
Institution Type	State-run	26	49.1
	Private	24	45.3
	Church-run	3	5.7
		53	100.0
Province	National Capital District	32	60.4
	Morobe	8	15.1
	Madang	5	9.4
	East New Britain	4	7.5
		53	100.0

Comparative Analysis of GenAI Perceptions

To investigate whether perceptions of GenAI differed significantly across respondent backgrounds, an **overall perception score** ($M = 3.48$, $SD = 0.68$) was calculated.

Comparison by gender (Independent Samples T-Test)

An independent samples t-test was conducted to compare perception scores for male and female educators. While male respondents reported a higher mean score ($M = 3.51$, $SD = 0.71$) than females ($M = 3.37$, $SD = 0.54$), the difference was not statistically significant, $t(51) = 0.719$, $p = .475$. This suggests that gender is not a determining factor in how GenAI is perceived in this sector.

Comparison by institution and location (One-Way ANOVA)

One-way between-groups analyses of variance (ANOVAs) were performed to examine the effects of institutional type and geographic location. As shown in Table 2, no statistically significant differences were observed across institutional governance ($p = .106$) or provincial locations ($p = .630$).

Table 2 SPSS ANOVA Output: Perceptions by Institution and Province

Source of Variation	Sum of Squares	df	Mean Square	F	Sig. (p)
Institution Type	1.957	2	0.978	2.344	.106
Province	1.208	4	0.302	0.650	.630
<i>Note: Overall Perception Score used as the Dependent Variable.</i>					

These findings indicate a high degree of perceptual uniformity across the accounting education landscape in Papua New Guinea, regardless of gender, regional location, or institutional funding model.

Age-Group Variations in AI Perception Dimensions

While the overall perception score did not show a statistically significant difference across the age groups ($F = 1.996$, $p = .127$), a more granular examination of specific perception sub-scales revealed significant variations. Specifically, age was found to be a critical factor in shaping attitudes toward *social influence* and *factors influencing continued use*.

Variations in social influence and continued use

A one-way between-groups ANOVA was conducted to explore the impact of age on these two dimensions. As shown in the SPSS ANOVA summary (Table 3), statistically significant differences were observed at the $p < .05$ level for both Social Influence ($F = 2.872$, $p = .046$) and Continued Use ($F = 3.431$, $p = .024$).

Table 3 SPSS ANOVA Output: Age-Group Variations in Key Dimensions

Dependent Variable	Source of Variation	Sum of Squares	df	Mean Square	F	Sig. (p)
Social Influence	Between Groups	4.667	3	1.556	2.872	.046*
	Within Groups	26.538	49	0.542		
Continued Use	Between Groups	7.241	3	2.414	3.431	.024*
	Within Groups	34.474	49	0.704		
<i>*Significant at the $p < .05$ level.</i>						

Post-hoc comparisons and interpretation

Post-hoc comparisons using the Tukey HSD test revealed that for *continued use*, the senior cohort (aged 50 and above) reported a significantly higher mean intention ($M = 4.28$, $SD = 0.49$) compared to the youngest cohort under 30 ($M = 3.29$, $SD = 0.69$).

In the dimension of *social influence*, mid-career educators (31–40 years) reported the highest sensitivity to institutional and peer expectations ($M = 3.47$), whereas both the youngest and oldest groups reported lower scores ($M = 2.76$ and $M = 2.98$, respectively). These findings suggest that while younger educators are "digital natives," the long-term strategic commitment to GenAI is strongest among the most experienced senior academics, whereas mid-career professionals are the most susceptible to institutional adoption pressures.

Inferential analysis: Predictors of GenAI usage

To address the research questions regarding institutional support and behavioural predictors, the study employed Pearson Correlation and Multiple Linear Regression.

Correlation analysis: Institutional support and usage

The relationship between institutional facilitating conditions and actual usage was investigated. The SPSS Correlation Matrix (Table 4) shows a strong, significant positive correlation between *institutional professional development* and *technical support* ($r = .680$, $p < .001$). However, neither professional development ($r = .120$) nor technical support ($r = -.001$) was significantly correlated with the actual *frequency of GenAI usage* ($p > .05$). This indicates that while support structures are coordinated, they have not yet translated into increased usage rates.

Table 4 SPSS correlation matrix: Support mechanisms and actual usage

	Institutional PD	Technical Support	GenAI Usage
Institutional PD	1	.680**	.120
<i>Sig. (2-tailed)</i>		.000	.392
Technical Support	.680**	1	-.001
<i>Sig. (2-tailed)</i>	.000		.991
GenAI Usage	.120	-.001	1
** Correlation is significant at the 0.01 level (2-tailed). N=53.			

Multiple regression analysis

A multiple linear regression was calculated to predict GenAI usage based on Perceived Usefulness, Ease of Use, Social Influence, and Facilitating Conditions. The regression model was found to be non-significant, $F(4, 48) = 0.347$, $p = .845$, with an R^2 of .028.

Table 5 SPSS Regression Coefficients: Predictors of Usage

Predictor Variable	Unstandardized B	Std. Error	Beta (β)	t	Sig. (p)
(Constant)	2.849	0.787		3.622	.001
Perceived Usefulness	-0.004	0.205	-.003	-0.018	.986
Perceived Ease of Use	-0.171	0.238	-.126	-0.716	.477
Social Influence	0.183	0.234	.135	0.779	.440
Facilitating Conditions	0.053	0.186	.044	0.286	.776

As indicated in Table 5, none of the individual UTAUT constructs emerged as a significant predictor of usage frequency. This suggests that the current adoption of GenAI among PNG accounting educators is likely driven by personal initiative or external professional trends rather than perceived institutional benefits or social pressure.

Summary of findings by research question

To provide a comprehensive answer to the study's research questions, descriptive statistics were generated for each of the five theoretical dimensions. Table 6 presents the Mean (M) and

standard deviation (SD) for each construct, ranked by their level of agreement among accounting educators.

Table 6 Descriptive statistics for research dimensions (N=53)

Research Question / Dimension	Mean (M)	Std. Deviation (SD)	Rank
RQ5: Intentions for Continued Use	3.88	0.89	1
RQ1: Perceived Usefulness & Impact	3.81	1.01	2
RQ2: Perceived Ease of Use	3.48	0.87	3
RQ3: Social & Institutional Influence	3.16	0.77	4
RQ4: Institutional Support & Infrastructure	3.06	0.97	5
<i>Scale: 1 = Strongly Disagree, 5 = Strongly Agree</i>			

The results indicate that lecturers hold the strongest positive perceptions regarding their *long-term intention to use GenAI (RQ5)* and its *usefulness in improving teaching and learning outcomes (RQ1)*. However, they remain relatively neutral regarding the *ease of use (RQ2)* and the *social pressure to adopt (RQ3)*. The lowest score was recorded for *institutional support and infrastructure (RQ4)*, suggesting that while educators are personally motivated, they perceive the systemic support as a potential barrier.

Hypothesis testing (H1)

The study proposed one primary hypothesis to examine the relationship between the educators' psychological intention and their practical behaviour:

- *H1: Behavioural Intention (BI) will positively influence accounting lecturers' Actual Usage (AU) of GenAI.*

To test H1, a Pearson Product-Moment Correlation was conducted between the mean score of Section 5 (Continued Use/Intention) and the Frequency of Actual Usage.

Table 7 Hypothesis H1 Testing: Correlation between Intention and Usage

Variable	Actual Usage Frequency	Result
Behavioural Intention (BI)		
Pearson Correlation (r)	.264	Not Supported
Sig. (2-tailed)	.056	
N	53	

Result of H1:

The correlation analysis revealed a positive relationship between behavioural intention and actual usage ($r = .264$); however, the result did not reach the threshold for statistical significance at the $\alpha = 0.05$ level ($p = .056$). Therefore, *Hypothesis H1 is not supported.*

Synthesis of results

The inferential and descriptive data collectively point toward a "Usage Gap" within the Papua New Guinean accounting academic community. While educators possess high behavioural intention ($M = 3.88$) and recognize the utility of GenAI ($M = 3.81$), these internal perceptions have not yet significantly translated into high-frequency actual usage ($r = .264$, $p > .05$).

This disconnect is further explained by the regression analysis in Section 4.4 and the low scores for Facilitating Conditions (Section 4.5). It suggests that environmental factors—such as inconsistent technical support and infrastructure—may act as "moderators" preventing even highly motivated educators from fully integrating Generative AI into their teaching and learning workflows.

Discussion

The discussion section interprets the empirical results within the broader context of technology adoption theories and the specific educational landscape of Papua New Guinea. The findings present a unique paradox: a high level of psychological readiness and professional optimism paired with stagnant actual usage, primarily moderated by systemic and age-related factors.

The "usage gap": Intention vs. Actual Practice

A primary contribution of this study is the identification of a "Usage Gap" among accounting educators. While the descriptive results for *RQ5 (Continued Use, $M = 3.88$)* and *RQ1 (Perceived Usefulness, $M = 3.81$)* indicate that lecturers are personally convinced of the value of Generative AI (GenAI), the failure of Hypothesis *H1* ($p = .056$) indicates that this intention does not statistically translate into high-frequency usage.

This disconnect challenges the linear progression often assumed in the Unified Theory of Acceptance and Use of Technology (UTAUT). In the PNG context, behavioural intention alone is insufficient for adoption. The "Usage Gap" suggests that even when lecturers perceive a tool as useful and intend to use it, external barriers—specifically those identified in *RQ4 (Support and Infrastructure, $M = 3.06$)*—act as significant inhibitors. This implies that the transition from a "motivated observer" to an "active user" is not a psychological hurdle for PNG educators, but a logistical one.

The infrastructure barrier as a moderator

The low mean score for *RQ4 (Institutional Support and Infrastructure)* serves as a critical explanation for the sluggish adoption rates. The correlation analysis revealed that while institutions are coordinating professional development and technical support ($r = .680$), these efforts are currently failing to influence usage.

This suggests that professional development programs may be focusing on "awareness" rather than "integration." If an educator receives training but returns to a department with inconsistent internet access or limited technical troubleshooting resources, the training fails to manifest in actual classroom practice. For accounting education—a field that requires high precision and real-time data—unreliable infrastructure is a fatal barrier to GenAI integration.

Challenging the "digital native" stereotype

The ANOVA results regarding age cohorts provide one of the study's most surprising findings. Conventional wisdom suggests that younger educators (under 30), often termed "digital natives," would lead the adoption of GenAI. However, our data showed that *educators aged 50 and above* reported the highest scores for *Continued Use* ($M = 4.28$), significantly higher than their younger counterparts ($p = .024$).

This suggests that in professional disciplines like accounting, *pedagogical experience* may be a more potent driver of technology adoption than *technical age*. Senior educators, who have witnessed multiple shifts in accounting standards and technologies (from manual ledgers

to ERP systems), may more clearly perceive GenAI's potential to solve systemic academic challenges, such as curriculum modernization or student engagement. In contrast, early-career educators may be more focused on mastering foundational teaching skills, viewing GenAI as an additional complexity rather than a solution.

Perceptual uniformity and the national strategy

The absence of significant differences based on *Gender* ($p = .475$), *Province* ($p = .630$), and *Institutional Type* ($p = .106$) is a testament to the unified professional identity of accounting educators in PNG. Whether in a private college in Port Moresby or a state university in a regional province, the attitudes toward GenAI are remarkably consistent.

This uniformity suggests that the "digital divide" in PNG accounting education is not a matter of gender or geography, but rather a universal systemic challenge. For policymakers and the Department of Higher Education, Research, Science and Technology (DHERST), this finding is pivotal: it justifies the implementation of a *National AI Accounting Education Framework*. Since perceptions are homogeneous, a standardized approach to ethical guidelines, curriculum integration, and infrastructure investment would likely be accepted and effective across all provinces and institutional types.

Conclusion

This study investigated the behavioural intentions and actual usage of Generative AI among accounting educators in Papua New Guinea. The findings reveal a community that is professionally optimistic and highly motivated to integrate GenAI into their pedagogical practices. However, this motivation is currently stifled by a significant "Usage Gap." While educators recognize the utility of GenAI and express a strong intention for long-term use, their actual integration of these tools into daily teaching remains moderate.

The research successfully identifies that this gap is not a result of demographic resistance. In fact, perceptions are remarkably uniform across gender, geographic locations, and institutional types, suggesting a nationwide readiness for technological transition. Critically, the study debunks the conventional "digital native" narrative by demonstrating that senior accounting educators (aged 50 and above) are the most committed to the future of GenAI, likely due to a deep understanding of how such tools can solve complex pedagogical and industry-alignment challenges.

Ultimately, the successful adoption of GenAI in PNG's accounting departments depends less on changing educator attitudes and more on bridging the gap between institutional support systems and actual classroom infrastructure.

Recommendations

Based on the empirical findings and the identified "Usage Gap," the following recommendations are offered to higher education stakeholders:

1. Strategic investment in "last-mile" infrastructure

The study identifies a disconnect between institutional technical support and actual usage. It is recommended that universities move beyond providing general support and focus on "last-

mile" infrastructure—ensuring that accounting labs and staff offices have the high-speed, reliable internet and consistent power supply necessary to run sophisticated AI models without interruption.

2. Transition from awareness to accounting-specific integration

Professional development (PD) programs should shift their focus from general AI literacy to discipline-specific applications. Training should be co-designed with accounting experts to focus on:

- Automating feedback for complex financial statements.
- Generating diverse audit simulations and case studies.
- Teaching students the ethical implications of AI in professional financial reporting.

3. Empowering senior educators as "AI strategic champions"

Given that senior educators (50+) demonstrated the highest commitment to continued use, institutions should avoid the mistake of targeting only younger staff for tech-leadership roles. Senior academics should be empowered as "AI Champions" to lead the strategic overhaul of accounting curricula, as they possess the professional maturity to balance AI efficiency with foundational accounting principles.

4. Development of a national AI accounting education framework

The high degree of perceptual uniformity across provinces justifies a standardized national approach. The Department of Higher Education, Research, Science and Technology (DHERST), in collaboration with professional accounting bodies (such as CPAPNG), should develop a unified framework. This framework should provide guidelines for the ethical use of GenAI in assessments and create a shared repository of AI-enhanced accounting resources to be used across all state, private, and church-run institutions.

Limitations and future research

While this study provides significant insights into the adoption of Generative AI (GenAI) among accounting educators in Papua New Guinea, several limitations must be acknowledged, which in turn offer pathways for future academic inquiry.

Study limitations

1. The study utilised a sample of 53 accounting educators. While sufficient for exploratory inferential statistics, the relatively small N limits the ability to generalise the findings to the entire higher education workforce in Papua New Guinea. The results should be viewed as an indicative snapshot of the accounting discipline rather than a definitive profile of all academic sectors.
2. A significant majority (60.4%) of the respondents were based in the National Capital District. While this reflects the centralisation of PNG's educational institutions, it may underrepresent the unique infrastructural and logistical challenges educators face in more remote or rural provinces.
3. This research employed a cross-sectional design, capturing educator perceptions at a single point in time. Given the rapid evolution of GenAI technology, attitudes and usage patterns may shift significantly within short periods, which a one-time survey cannot fully capture.
4. The findings rely on self-reported survey data, which may be subject to social desirability bias—where respondents might overstate their positive perceptions of AI to appear more technologically "current"—or recall bias regarding their actual usage frequency.

Directions for future research

1. Future studies should adopt a longitudinal approach to track whether the "Usage Gap" identified in this study narrows as institutional infrastructure and national AI policies evolve. This would help determine if the barriers to adoption are truly systemic or merely a phase of early-stage implementation.
2. While this study quantitatively identified a disconnect between intention and usage, qualitative research (such as semi-structured interviews or focus groups) is needed to explore the *nature* of these barriers. Understanding the specific day-to-day frustrations educators face with technology could lead to more effective institutional interventions.
3. Future research should expand beyond accounting to compare adoption rates in other disciplines such as Law, Medicine, or the Social Sciences. This would reveal whether the high strategic commitment found among senior accounting educators is unique to the financial profession or a broader trend in PNG academia.
4. This study focused exclusively on educators. A critical next step is to investigate the perceptions and actual usage of GenAI among accounting students in PNG. Aligning educator strategies with student expectations and ethical practices is essential for a holistic educational transition.
5. As usage moves from "occasional" to "integrated," empirical research is needed to measure the actual impact of GenAI on student performance, critical thinking skills, and graduate employability within the PNG labour market.

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