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UNDERSTANDING THE POTENTIAL OF AI: INSIGHTS FROM POLISH ACCOUNTANTS

Konrad Biercewicz^a, Stanisław Hońko^b

^a University of Szczecin, Institute of Management, Szczecin, Poland

^b University of Szczecin, Institute of Economy and Finance, Department of Accounting, Szczecin, Poland

ABSTRACT

Purpose: *The increasing integration of artificial intelligence (AI) in accounting raises questions about professionals' willingness to adopt AI tools and the factors influencing this adoption. This study examines key determinants of AI adoption, including openness to technological innovation, professional experience, and perceived control over automation processes.*

Need for the study: *While prior research has explored the benefits and challenges of AI in accounting, there is a need for empirical evidence regarding how demographic and professional factors shape adoption patterns. Understanding these factors is crucial for designing effective training programs and policies that facilitate AI integration while addressing ethical concerns.*

Methodology: *A quantitative research approach was applied, utilizing logistic regression, chi-square tests, and Kruskal-Wallis's analysis to examine the relationships between AI adoption and key variables. The study sample consisted of accounting professionals from various organizational settings.*

Findings: *The results indicate that openness to technological innovation significantly predicts AI adoption, whereas years of experience show a weak inverse relationship with AI acceptance. Ethical considerations and perceived control over automation processes also influence accountants' preferences. Gender differences in AI adoption were observed, though their statistical significance remains marginal.*

Practical Implications: *The findings highlight the need for targeted training programs that enhance technological proficiency and address ethical concerns surrounding AI use in accounting. Organizations and policymakers should develop regulatory frameworks that balance automation benefits with transparency and accountability. Future research should explore the longitudinal effects of AI exposure and investigate the impact of workplace culture and institutional policies on AI adoption.*

Keywords: AI, accountants, automation, accounting profession, digitalization, accounting education

Jel codes: B26; M41; Q56

1. INTRODUCTION

Predictions of the demise of the accounting profession have a long history. More than a hundred years ago, it was predicted that the introduction of calculating machines, and the mechanization of accounting processes would make accountants unemployed. It is also assumed that the mechanization of accounting

at the beginning of the 20th century led to the separation of the functions of accountants and bookkeepers. In the latter group, the feminization rate increased, due to, among other things, lower wages of women at that time (Wootton, Kammerer 2007). Many years later, Osborne and Frey from Oxford University, in a study of over 700 professions at risk of being replaced by technology, estimated the risk of replacement among "accountants and auditors" at 94% (Osbourne, Frey, 2017). This research influenced media reports, which oversimplified the message that the accounting profession would soon cease to exist. Such reports, often lacking context and depth, have a negative impact on the attractiveness of the accounting profession. Today, in the era of the extraordinary popularity of AI, the topic of replacing accountants with technology has become extremely relevant. Researchers at OpenAI and the University of Pennsylvania (Eloundou et al. 2023), claim that the job of the accountant and auditor is one of the most affected by AI (Cardinaels et al, 2024). This article does not address the issue of replacing accountants with AI. We share the view of many authors, for example (Greenman, Esplin, Johnston & Richards, 2024) or (Hasan 2021), that technology is and will be a tool supporting accountants, not replacing them. We also agree with Leintner et al (2021) that accountants' skills will undergo major changes in the next 10 years due to AI, however, "core" roles and tasks will continue to exist in the future. Some activities will not be performed by humans but by AI, and humans will need to consciously use digital technologies and interact with AI-based technology. The resistance of accountants to being replaced by technology results from the key role that creativity (not to be confused with accounting fraud) and professional judgment play in this profession. The issue of interest to us is to examine how accountants intend to use data prepared by AI. Are they ready for complete automation of the process of recording documents in accounting books? Are they ready to accept minor errors that an inadequately trained AI may make? We decided that the best way to find out the answers would be to conduct a survey among accountants. The invitation to the study was sent by the Accountants Association in Poland (AAP) in cooperation with an innovative IT company implementing AI in accounting. This method of distributing surveys allowed us to reach a group of professionals who are either members of the AAP or are improving their qualifications on certified courses. The article aims to examine the relationship between selected characteristics of accountants and their declared way of working with AI-based tools. To achieve this aim, we formulated the following hypotheses:

- H1: Accountants see the potential of AI as a tool to support their work.
- H2: Accountants who are open to technology are more likely to use AI.
- H3: The longer the seniority, the less willing they are to use AI.
- H4: Accountants open to technology can accept AI's minor errors.
- H5: The longer the seniority, the greater the lack of confidence in AI-assisted accounting.

These hypotheses form the foundation for our research, providing a structured approach to understanding the relationship between accountants and AI-based tools. In the following sections, we will present the methodology, analysis, and discussion of the findings, which will offer insights into how professionals perceive and adapt to technological advancements in their field.

2. LITERATURE REVIEW

The integration of artificial intelligence (AI) into the accounting profession has generated significant interest and debate among practitioners and scholars alike. A central question concerns how much power accountants are willing to relinquish to AI tools, reflective of their preferences and reluctance to accept varying degrees of automation in their work. This literature review synthesizes findings from recent studies, emphasizing empirical evidence and theoretical interpretations that illustrate the accountant's evolving relationship with AI.

A pivotal study by Mgammal examines the direct relationships between AI awareness, engagement, and the utilization of AI in accounting procedures, revealing that accountants who are knowledgeable and actively engaged with AI are more likely to adopt it in their practices. This awareness facilitates a positive change in accounting processes, aligning with findings from other scholars who argue that institutional knowledge about AI directly correlates with its application in accounting tasks (Mgammal, 2024). Furthermore, Greenman et al. discuss the ethical implications of AI in accounting, highlighting

how understanding AI's transformative potential can prepare stakeholders for a synergistic relationship between human expertise and AI capabilities (Greenman et al., 2024). This suggests that informed accountants may not only integrate AI tools but can also embrace their transformative effects on the profession.

Conversely, there is a concern shared amongst practitioners about the implications of AI for their roles. A study on Nigerian accountants reveals that while AI can automate mundane tasks, it also creates avenues for accountants to transition into more strategic roles, moving beyond traditional bookkeeping functions (Austin, 2022). This duality offers accountants an opportunity to redefine their professional identity while simultaneously raising fears of job displacement, especially when examining the involvement of AI in processes traditionally held by accountants, as noted in a meta-analysis of AI impacts in accounting literature (Rawashdeh, 2025). This highlights a need to understand accountants' preferences for AI tool usage, as they may advocate for AI as an assistant rather than a replacement.

Data privacy and ethical considerations also loom large in conversations about AI within accounting. The findings from Adelakun et al. contextualize this by noting that AI's integration offers significant capabilities for improving accuracy and efficiency but concurrently poses notable ethical challenges that the profession must navigate (Adelakun et al., 2024). Insights from this paper emphasize a growing consensus among accountants regarding their need for oversight and parameters governing AI use to mitigate potential risks associated with bias, transparency, and accountability (Schweitzer, 2024). Thus, accountants express a preference for deploying AI tools in a controlled manner that preserves their oversight capabilities while leveraging AI for increased efficiency.

Moreover, recent literature increasingly hints at a threshold of technological proficiency that accountants require to effectively utilize AI tools. Studies conducted in various regions, including a survey of Lebanese Certified Public Accountants (LCPAs), suggest that proficiency with AI applications correlates with improved reliability in financial data, thus enhancing accountants' trust in these technologies (El-Mousawi et al., 2023). This reflects a growing schism where more technologically adept accountants are willing to endorse greater AI adoption, unlike their less tech-savvy colleagues who may perceive AI as a potential threat to their job security and professional relevance (Chen et al., 2023).

The balance between technology and human judgment has emerged as a focal point in understanding accountants' willingness to adopt AI. Research by Chen et al. articulates that while AI may enhance efficiency and accuracy, it necessitates a complementary enhancement of human skills, knowledge, and ethical understanding to guard against pitfalls stemming from over-reliance on automated systems (Chen et al., 2023). This dichotomy stresses the importance of ongoing professional development, which could influence accountants' adaptability and willingness to embrace AI.

Additionally, framing accountants' relationship with AI through the lens of economic opportunity has been particularly insightful. Studies emphasize that AI is not merely a disruptive force but a catalyst for professional growth and expanded career possibilities (Reamer, 2023). For accountants, the evolution of their roles can create more avenues for strategic decision-making, suggesting a gradual acceptance of AI as an ally rather than a competitor. Evidence from multiple sources points to a consensus that AI can liberate accountants from repetitive tasks, allowing them to focus on higher-level strategic functions (Cardinaels et al., 2024; Toli & Manasa, 2024).

In conclusion, while there exists a cautious optimism among accountants regarding AI's role in the profession, concerns regarding ethical implications, job security, and the necessity for balancing human judgment and machine efficiency present barriers to full adoption. Insights from recent studies illustrate the importance of preparing accountants not just through technical training but fostering an ethical, aware mindset that enhances their decision-making capabilities in a landscape increasingly influenced by AI technologies. The evolving relationship promises to redefine professional norms, roles, and the overall landscape of accounting.

As mentioned earlier, accountants have been afraid for decades that technology will take their jobs. There is no doubt that the rapid development of AI-based tools will have a revolutionary impact on this profession, and every revolution causes fear. Even at this stage of technology development, it is possible to draw a balance sheet of opportunities and threats related to the implementation of AI in accounting (Table 1).

Table 1. Balance sheet of opportunities and threats related to the implementation of AI in accounting

Perceived Benefits	Probable Risks
Cost savings and operational efficiencies	Conflict of interest and/or threat to independence (on the part of the external auditor) in case of organization under greater monitoring by AI
Improved productivity	Extinction of conventional jobs/tasks
Improved customer services	Rise of income inequality and wealth inequality
	At the present level of intelligence in AI applications, the AI system can't update itself in response to changes in laws, regulations, and policies. So, frequent changes may hamper the process
Greater accuracy	
Flexible working style	Greater cost commitment
Process governance	Lack of expertise on the part of the accountants and auditors
Manpower saving	Resistance from the existing workforce
Risk management	
Metadata Analysis	
Moving focus away from repetitive, time-consuming, and rules-based tasks	
Reallocation of saved time and prioritize more complex and value-added tasks	

Source: own elaboration.

Accountants are currently employing artificial intelligence across a diverse range of applications, spanning the identification of high-risk transactions within audit procedures to the execution of accounts payable processing tasks. Consequently, AI is increasingly supplanting human-driven processing and decision-making processes, a trend anticipated to exert a continuing transformative influence on business practices. Despite the nascent stage of AI adoption within the accounting profession, practitioners must comprehend the ramifications inherent in this technological evolution (Cory, Alarcon 2021). It is also worth mentioning literature reviews prepared by other authors, for example, Odonkor et al (2024), Saleeem et al (2023), Hasan (2021), or Moll and Yigitbasioglu (2019).

To verify hypothesis 1, “Accountants perceive the potential of AI as tools supporting their work,” a review of studies examining accountants’ perceptions of AI was required. The list of publications is presented in Table 2.

It is worth citing selected conclusions from surveys on the perception of AI by accountants. A survey by Holmes and Douglass (2021) found that accounting professionals who use technology do not have significant levels of anxiety about AI. There is evidence that they perceive technological advances to have a positive impact on productivity and increase their chances for promotion and higher salaries. For them, using AI technology is an opportunity for growth. Because technology is changing so rapidly, accounting programs will serve their graduates well by providing not only accounting and data management knowledge but also by nurturing their ability to learn throughout their lives. Hossain et al (2024) reported findings from semi-structured interviews with accounting experts. Topics were divided into five categories related to AI use: efficiency and automation, data accuracy and integrity, fraud detection and security, professional roles and skills, and ethical and regulatory considerations. Participants highlighted significant productivity improvements resulting from implementing automation of repetitive tasks, using AI technologies such as robotic process automation (RPA) and machine learning algorithms to streamline activities such as data entry, invoice processing, and financial reconciliation. The use of blockchain technology was praised for its ability to improve the accuracy and reliability of financial records. The research concludes that AI dramatically improves productivity by automating repetitive tasks such as data entry and invoice processing, freeing up accountants to focus

on more valuable activities. The survey was presented by Bou Reslan, F., & Jabbour Al Maalouf, N. (2024). was conducted among accountants in Lebanon.

Table 2. A compilation of articles on accountants' perceptions of AI in which quantitative research was conducted

Article	Date of publication	Study Setting	Sample Size	Professional Context	Research Focus
Alfares and Şavlı, 2023	2023	Turkey (Istanbul)	155	Certified Public Accountants	Awareness and perception of AI in accounting practices
Bakarich and O'Brien, 2021	2021	Not specified	90	Public accounting professionals	Current AI utilization and perceptions of impact
Banța et al., 2022	2022	Romania	103	Accounting practitioners in multinational companies	Perception of AI benefits and challenges in accounting
Bou Reslan and Jabbour Al Maalouf, 2024	2024	Lebanon	454	Accounting professionals	Impact of AI on efficiency, fraud detection, and skill dynamics
Chouhan et al	2020	India (Rajasthan)	62 companies and 104 respondents	Auditors, Accountants, and Managers of selected companies	Using AI (Accounts Payable, Fixed Assets, General Ledger, Financial Reporting, Payroll)
El-Mousawi et al., 2023	2023	Lebanon	337	Certified Public Accountants	Impact of AI on the accounting and auditing profession
Holmes and Douglass, 2021	2021	USA (Southwest)	107	Public accounting, Industry, Education	AI's impact on the accounting profession and education
Hossain et al., 2024	2024	Global	20-30 Interviews and case studies	Industry experts	Impact of AI and blockchain on accounting
Johnson et al., 2021	2021	USA (Southwest Florida)	34	Accounting professionals (staff to partners)	Interest, knowledge, and usage of AI in the accounting profession

Source: own elaboration.

The findings of the study confirm that implementing AI in accounting significantly increases the efficiency and quality of financial data, as well as positively affects the detection of financial fraud and tax settlements, and changes professional activities and skill requirements in the accounting profession. These results underscore the transformative role of AI in modern accounting practices. Bakarich and O'Brien (2020) reported that both Robotic Process Automation (RPA) and Machine Learning (ML) are not being used extensively by public accountants or their clients. Johnson et al. (2021) found that while the majority of accountants surveyed were interested in and familiar with AI, only a limited number

were currently using it in their practice. Banța et al. (2022) reported that practitioners recognize the need for skills transformation due to AI integration. The study emphasized that while AI can automate certain tasks, it cannot replace skills involving creativity and professional judgment.

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In conclusion, in light of the cited studies, AI is perceived by accountants mainly as an opportunity and a tool to improve their work. We could not find publications devoted to the modes of cooperation between accountants and AI, including those concerning consent to minor errors made by the automated process of processing accounting data. According to the authors, there is a research gap in this area, which we try to fill with this article.

3. METHODOLOGY

3.1. Participants

The data used in this study was obtained from a survey conducted with individuals working in various sectors, focusing on their attitudes toward and use of artificial intelligence (AI). The survey collected a range of demographic and professional information, as well as data on AI adoption and related behaviors.

This article is devoted to one of the important areas of accountants' relationship with AI, namely their approach to the results of automatically prepared accounting entries and acceptance of minor errors. Some of the responses from an extensive survey were used in the analysis. To further encourage participation, webinars were organized, during which the results of the pilot were presented, and potential respondents were invited to participate in the survey. Responses were collected from a total of 611 participants, divided according to demographic and professional criteria. Women constituted the majority – 80% of the sample, and 19% men. 1% preferred not to disclose their gender. In terms of accounting experience, respondents demonstrated a wide range of expertise. Those with more than 20 years of experience were the largest group, accounting for 34%, followed by those with 1–5 years of experience (18%) and 11–15 years of experience (16%). Participants with 6–10 years of experience

accounted for 15% (87 respondents), while those with 16–20 years of experience accounted for 13%. Early-career professionals, including those with less than a year of experience (3%) or no experience at all (2%), made up a smaller portion of the sample.

We also analyzed the revenues of participants' primary jobs. Organizations with revenues below PLN 1 million were the largest group, accounting for 30% of respondents. Entities with revenues between PLN 1 and PLN 5 million accounted for 16%, while 11% came from organizations generating revenues between PLN 5 and PLN 10 million and over PLN 100 million, respectively. A similar percentage, 11%, came from workplaces with revenues between PLN 10 and PLN 20 million. Entities with revenues between PLN 20 and PLN 50 million accounted for 10%, and 6% were affiliated with organizations earning between PLN 50 and PLN 100 million. Significantly, 5% of respondents chose not to disclose the revenues of their primary workplace. Participants provided information about their roles within their organizations, with this question allowing for multiple responses, which explains why the total number exceeds the number of respondents. Chief accountants were the largest group, with 180 responses, followed by independent accountants, with 155 responses. Accounting office managers were also strongly represented, with 120 responses, while 86 people selected the "other" category. Accounting office employees accounted for 72 responses, while HR/payroll specialists and CFOs contributed 34 and 33 responses, respectively.

The survey, in addition to the metrics, included 14 closed questions (some of the questions allowed for any answer in the "other, what?" section) and 4 open-ended questions. For this study, in addition to the metrics, the answers to the following questions were included in the detailed analysis (table 3).

Table 3. Responses to survey questions analyzed in this study (n = 581)

Question	Answer
Do you like gadgets and technological innovations?	yes, very much: 30,1%; rather yes: 59,2%; rather no: 9,5%; no: 1,1%
Do you use solutions using Artificial Intelligence on your initiative?	yes: 36,2%; no: 48%; I don't know: 15,9%
In what mode would you like to work with solutions using AI?	I would not like to use AI at all: 5,2%; Only suggestions (AI assistance during my work): 15,4%; Automatic accounting by AI, but with my checking everything: 40,3%; Automatic accounting by AI, but with my checking only those decrees that the system indicated as questionable: 33,4%; Full automation: 5,6%
What method of working with AI would be closer to you?	I will accept minor errors if it would save me a lot of time (41,1%); I will verify each automatically posted document to avoid errors (52,4%); Another answer - is the ability to enter any text: 6,5%*

*Selecting the 'other' option allowed for entering any text. Summing up the answers entered in this section, it can be stated that the respondents are in favor of a hybrid approach, where a human actively participates in the process, especially at the beginning, verifying the AI's work and gradually increasing trust as it improves and its effectiveness is confirmed. The key is to maintain control, have the ability to identify and correct errors, and ensure the continuous learning of the AI system.

Source: own elaboration.

3.2. Research Protocol and Stimuli

The survey was conducted using Google Forms. The link to the survey is available in the [link](#). Because the questions were addressed to Polish accountants, the survey was written in Polish. The survey was conducted among Polish accountants between October 2023 and July 2024. The survey, distributed with the support of the Association of Accountants in Poland, a professional organization associating over 26,000 active accountants, aimed to collect various observations. The sampling was random. Any person related to accounting had a chance to take part in the survey. The number of accountants in Poland is estimated at around 400,000. In SurveyMonkey's survey sample calculator, with the population at this level, with a 95% confidence level and a 5% margin of error, the representative sample is 384 people. A 5% higher degree of certainty would require 384 respondents. Unfortunately, we cannot say with certainty that the sample is representative, which is a limitation of the survey's conclusions. Reducing the margin of error to 4% means that a representative research sample is 600 people. Of course, we cannot say with full certainty that the sample is representative. The data collected in the metrics show

that the respondents represented large and small companies from all regions of Poland. The demographic diversity of the respondents corresponds to earlier studies conducted by AAP on samples of several thousand respondents. All these arguments increase the credibility of the obtained studies and indirectly confirm the representativeness of the selected sample. Data collected in the Google Forms form was aggregated in a spreadsheet and then appropriately coded according to the procedure described later in the article. Only the authors had access to the data, and they were not changed in any way.

3.3. Analysis of Measurement Data

The key variables analyzed in this study included:

1. Using of AI adoption: A binary dependent variable indicating whether an individual uses AI in their work. It was coded as 1 for 'Yes' and 0 for 'No'.
2. AI work mode: This variable indicated the level of automation in the respondents' work and was categorized into four groups: 'Full automation', 'Automatic accounting with my supervision', 'Verification of selected operations by humans', and 'No consent for automation'. The values were mapped numerically from 0 to 3.
3. Liking new technologies: This variable measured the respondent's interest in new technologies, with responses ranging from 'Not at all' to 'Very much'. Values were mapped from 0 to 3.
4. Years of experience: This variable was categorized by the number of years of professional experience, with responses mapped to values from 0 (no experience) to 25 (more than 20 years).
5. Company revenue: This variable represented the revenue of the respondent's company, extracted from textual descriptions. The numerical data were extracted using regular expressions.

The statistical analysis of the data was conducted in several steps to assess the relationships between key variables and their influence on the adoption of AI. The first step involved testing the normality of the data. Since many of the variables did not follow a normal distribution, non-parametric tests were employed for further analysis. The normality of each continuous variable was assessed using the Shapiro-Wilk test, which is commonly used for small sample sizes and tests if the data significantly deviates from a normal distribution.

Once normality was assessed and the non-parametric nature of the data was confirmed, the appropriate statistical tests were selected. The Kruskal-Wallis H test was used to compare the levels of AI adoption across different groups of experience. This non-parametric test is an alternative to the one-way ANOVA and is ideal for comparing medians across multiple independent groups when the assumption of normality is not met.

The Spearman correlation was calculated between openness to technology and AI acceptance, indicating a weak positive relationship between these variables. For the Hypothesis, the Spearman correlation between years of experience and AI acceptance was computed, suggesting no significant relationship between the two. In Hypothesis H5, the Spearman correlation between years of experience and AI work mode was calculated, also indicating no significant relationship.

The Wilcoxon signed-rank test was used to compare related variables. This test is suitable for assessing differences between two paired samples and is often used when the data does not meet the assumptions required for paired t-tests. In this study, it was used to compare AI adoption modes and the participants' interest in new technologies.

To examine the relationship between categorical variables, a chi-square test of independence was applied to investigate whether there was an association between gender and the willingness to adopt AI in the workplace. This test evaluates if two categorical variables are independent or related to each other. Lastly, logistic regression analysis was conducted to model the likelihood of adopting AI, with the dependent variable being the use of AI in the workplace. The regression model included several independent variables, including work mode, interest in new technologies, years of experience, and company revenue. Logistic regression is suitable for binary outcomes, such as the decision to adopt or not adopt AI, and allows for the estimation of the odds of adoption based on predictor variables. Throughout the analysis, the assumption of normality was a critical factor in determining which statistical tests were used. By applying appropriate non-parametric tests and logistic regression, the analysis aimed to uncover the relationships and factors influencing AI adoption in the workplace.

4. RESULTS

The results of the statistical analyses revealed important insights into the relationships between various factors related to AI usage, automation preferences, and other variables of interest. First, normality tests were conducted on the variables ‘automation mode’, ‘liking of new technologies’, ‘years of experience’, and ‘company revenue’. The tests indicated that none of these variables followed a normal distribution, as all p-values were below 0.05. This suggests that the data do not meet the assumptions necessary for parametric tests, and therefore, non-parametric methods were employed for further analysis.

To address potential confusion between overlapping but distinct concepts such as ‘AI adoption,’ ‘AI acceptance,’ and ‘the likelihood of using AI,’ we introduce a set of unique labels used throughout this section and summarized in Table 4.

Table 4. Definitions for AI-related variables

Term	Description
AI Acceptance (AIA)	General attitude toward AI and openness to its use
AI Adoption (AID)	Actual implementation of AI systems in practice
Likelihood of using AI (LUI)	Self-reported probability of future AI use in one’s work

Source: own elaboration.

A Kruskal-Wallis’s test was performed to compare the levels of automation (AID) across different experience groups. The test resulted in an H-statistic of 9.61 and a p-value of 0.0871, which is above the conventional threshold of 0.05. This outcome leads to the failure to reject the null hypothesis, indicating that there is no statistically significant difference in the level of automation across the various work experience groups.

To further explore relationships between specific variables, the Wilcoxon signed-rank test was applied to compare the levels of automation (AID) with the liking of new technologies. The test produced a t-statistic of 1077.0 and an extraordinarily small p-value of 2.22e-101, which is well below the 0.05 significance level. This strong result suggests that there is a significant difference between these two variables, highlighting the importance of new technology preferences in shaping attitudes toward AI automation.

The analysis of the relationship between various factors influencing AI acceptance (AIA) revealed the following findings. The Spearman correlation between openness to technology and AI acceptance was calculated, yielding a correlation coefficient of 0.0958 with a p-value of 0.0209. This suggests a weak positive relationship between openness to technology and AIA. The Spearman correlation between years of experience and AI acceptance was computed, resulting in a correlation coefficient of 0.0398 with a p-value of 0.3385. This indicates no significant relationship between years of experience and AI acceptance. Similarly, the Spearman correlation between years of experience and AI work mode was also calculated, yielding a correlation coefficient of 0.0398 with a p-value of 0.3385, which suggests no significant relationship between years of experience and AI work mode.

Finally, a chi-squared test was conducted to assess the association between gender and willingness to adopt automation (AID). The test yielded a chi-squared value of 5.10 and a p-value of 0.0782. Although the p-value is slightly above the 0.05 threshold, it is still relatively close, suggesting a potential trend toward a relationship between gender and automation preferences, though it does not reach statistical significance.

Additionally, a logistic regression model was employed to explore factors influencing the LUI (Table 4). The model explained only about 4.3% of the variance in the dependent variable using AI (Pseudo $R^2 = 0.04326$), indicating that other important factors, not included in the model, may be influencing AI adoption. Despite this, the model as a whole was statistically significant (LLR p-value = 6.429e-07), suggesting that the variables included in the model have a meaningful relationship with the likelihood of using AI.

Table 5. Results of logistic regression

	coef	std err	z	P> z	[0.025	0.975]
Intercept	-1.5056	0.345	-4.366	0.000	-2.181	-0.830
willingness to adopt automation	0.1145	0.123	0.928	0.353	-0.127	0.356
liking of new technologies	0.6540	0.142	4.614	0.000	0.376	0.932
years of experience	-0.0184	0.009	-2.047	0.041	-0.036	-0.001
company revenue	0.0015	0.002	1.008	0.313	-0.001	0.005

Source: own elaboration.

The results showed that liking new technologies and years of experience were significant predictors of AI usage. Specifically, the coefficient for liking new technologies was positive and highly significant ($p < 0.001$), indicating that individuals who like new technologies are more likely to use AI. Conversely, years of experience had a negative coefficient ($p = 0.041$), suggesting that those with more years of experience are less likely to adopt AI. However, willingness to adopt automation and company revenue were not significant predictors in the model, with p-values of 0.353 and 0.313, respectively.

The analyses conducted allow us to conclude that hypotheses H2 (people who are open to technology are more likely to use AI) and H3 (longer job tenure is associated with a lower propensity to use AI) have been confirmed.

The H2 hypothesis is supported by the results of the Wilcoxon test and logistic regression, where the variable “liking of new technologies” had a significant positive coefficient ($p < 0.001$). This means that people who are positive about new technologies are indeed more likely to implement AI in their work.

Hypothesis H3 was also confirmed, as logistic regression showed a significant negative effect of years of experience on the use of AI ($p = 0.041$). This suggests that the greater the seniority, the less likely they are to implement AI, which may be due to attachment to traditional work methods or lack of need for change.

Hypothesis H4 (acceptance of minor AI bugs by those open to technology) received only weak support. The Spearman correlation between openness to technology and acceptance of AI was low ($r = 0.0958$, $p = 0.0209$), suggesting the existence of some relationship, but its strength is low. This could mean that while people who are open to technology are more likely to use AI, they do not necessarily accept its imperfections.

Hypothesis H1 (perception of AI as support at work) was rejected because the variable “willingness to adopt automation” was not a significant predictor of AI use ($p = 0.353$). This indicates that willingness to automate alone does not directly translate into actual AI implementation, which may be due to organizational barriers or lack of access to appropriate tools.

Hypothesis H5 (greater lack of confidence in AI with longer tenure) was also rejected. Spearman's correlation between years of experience and AI mode of operation was non-significant ($r = 0.0398$, $p = 0.3385$), and the Kruskal-Wallis's test showed no significant differences in the level of automation between groups with different seniority ($p = 0.0871$). This means that the length of seniority does not significantly affect the level of trust in AI.

In conclusion, the results indicate that factors such as the liking of new technologies and work experience significantly influence attitudes toward AI automation, while automation preferences and company revenue do not exhibit strong associations with AI usage in this dataset. Specifically, hypotheses H2 and H3 were confirmed, showing that individuals open to technology are more likely to use AI, whereas those with longer work experience are less inclined to adopt it. Hypothesis H4 received only weak support, suggesting a minor link between openness to technology and tolerance for AI errors. In contrast, hypotheses H1 and H5 were rejected due to a lack of significant statistical relationships, indicating that general willingness to automate and work experience do not strongly predict AI adoption or trust in AI-assisted accounting.

5. DISCUSSION

Accountants demonstrate a cautious and sensible approach to using AI tools. Although 95% of respondents intend to use AI in their professional work, only 5.6% would decide on full automation. This means that almost 90% of respondents are not ready to “give power” to AI. The principle of limited trust in technology applies. As many as 40% of surveyed accountants intend to verify every accounting entry prepared initially by AI. This method of cooperation, indicating a low level of trust in technology, can increase the efficiency of accountants’ work only to a small extent. Therefore, it is difficult to expect that the benefits related to the use of AI presented in the article (e.g. elimination of routine activities, focus of accountants on advisory and analytical activities) can be observed in the short term. One-third of accountants demonstrate a higher degree of trust in AI because they intend to verify only those accounting entries that are abnormal. At the same time, over 40% of respondents are ready to accept minor AI errors if it allows for greater efficiency of their work. Such a statement is completely different from the stereotype of an accountant, perceived as a person who is overly conscientious and detailed. According to the authors, the key issue is to understand the concept of a ‘minor error’, which may be perceived differently by accountants as a professional group striving for perfect errorlessness. To sum up, the power over accounting entries will remain in the hands of accountants for a long time. This is due to the wealth of transactions that must be included in accounting, using well-understood creativity and professional judgment. AI is getting better at recording typical transactions, but it has serious problems with nuance. It requires the vast knowledge, experience, and intuition of accountants who will dot the i’s and dot the i’s.

The findings of this study align with existing literature on the integration of artificial intelligence (AI) in accounting, highlighting both the drivers and barriers to AI adoption among professionals. Prior research has underscored the role of AI awareness and engagement in shaping accountants’ willingness to integrate AI into their workflow (Mgammal, 2024). Our results similarly indicate that openness to technological innovations positively correlates with AI adoption, supporting the notion that familiarity with AI fosters confidence in its capabilities. The findings for accountants are consistent with more general research (Kusuma et al, 2024). The weak positive correlation between openness to technology and AI acceptance suggests that individuals who are more receptive to new technologies may be slightly more inclined to accept AI. However, the strength of this relationship is low, indicating that openness to technology alone is not a strong predictor of AI acceptance.

The relationship between experience and AI adoption remains a topic of debate. While some studies suggest that seasoned professionals may resist automation due to entrenched work habits and concerns about job displacement (Cox & Mazumdar, 2022), our findings reveal a statistically significant, albeit weak, inverse relationship between years of experience and AI adoption. This supports previous studies indicating that younger accountants or those with less tenure may be more inclined to embrace AI, seeing it as an opportunity rather than a threat (Austin, 2022). However, our analysis does not provide strong evidence that experience alone is a decisive factor in AI adoption, implying that additional variables such as workplace culture and institutional AI policies may play a role. In contrast, the results do not support a significant relationship between years of experience and AI acceptance, as indicated by the non-significant correlation. This suggests that employees with varying levels of experience do not differ significantly in their willingness to adopt AI. Similarly, the lack of a significant correlation between years of experience and AI work mode implies that work experience does not play a determining role in how AI is integrated into professional tasks. These findings challenge common assumptions that younger or less experienced employees might be more open to AI, highlighting the need for further research on other potential influencing factors, such as organizational culture, training opportunities, or perceived AI benefits.

The ethical and regulatory concerns surrounding AI integration in accounting, as highlighted by Adelakun et al. (2024), are echoed in our results. While AI has the potential to improve efficiency and accuracy, accountants remain cautious about transparency, data security, and accountability. Prior research has demonstrated that accountants tend to favor AI in a controlled capacity, ensuring that human oversight remains a critical component of decision-making processes (Schweitz, 2024). Our findings support this assertion, as AI adoption appears to be more prevalent in environments where accountants retain significant control over automated processes.

Gender-based differences in AI adoption have been previously noted in research, albeit with mixed conclusions. Our chi-square test results suggest that gender may play a role in automation preferences, although the relationship is not strongly significant. This aligns with broader discussions in the literature regarding how demographic factors influence technology adoption, often interacting with other variables such as education, professional specialization, and access to AI-related training (El-Mousawi et al., 2023).

The broader literature also highlights that AI adoption is often contingent upon the level of technological proficiency among accountants. Our findings resonate with those of Chen et al. (2023), who found that accountants with greater exposure to AI tools exhibit higher levels of trust in automation. Conversely, those with limited AI proficiency are more likely to perceive automation as a disruptive force rather than an enhancement to their profession. The results emphasize the necessity of continuous professional development programs to bridge the gap between AI advancements and their practical application in accounting.

Our findings align with existing research suggesting that AI adoption is influenced by a combination of personal attitudes, workplace policies, and institutional support structures. As AI continues to be integrated into various professional domains, including accounting, understanding the nuanced interplay between technological openness, work experience, and organizational readiness becomes increasingly crucial. While openness to technology shows some association with AI acceptance, work experience does not appear to be a key determinant. Future studies could explore additional variables, including attitudes toward automation, industry-specific AI applications, or the role of leadership in fostering AI adoption.

Overall, this study reinforces the evolving nature of AI adoption in accounting, shaped by technological familiarity, experience, and perceived control over automation processes. As AI continues to transform the profession, future research should explore how institutional frameworks, regulatory policies, and education initiatives can facilitate a balanced integration of AI, ensuring both efficiency gains and the retention of ethical, human-driven decision-making.

6. CONCLUSION

This study provides valuable insights into the factors influencing AI adoption among accountants, with a focus on technological familiarity, experience, and perceived control over automation processes. While openness to innovation emerges as a strong predictor of AI adoption, experience appears to play a more complex role, with younger professionals demonstrating greater receptivity to AI tools. Additionally, ethical concerns and regulatory considerations remain central to accountants' perspectives on AI, underscoring the need for frameworks that balance efficiency with transparency and accountability.

However, this study has several limitations. The sample is limited to a specific professional group, which may restrict the generalizability of the findings to other industries. Additionally, while our statistical models identify correlations, they do not establish causal relationships between the examined variables. Future research should consider longitudinal studies to track changes in AI adoption over time and explore causal mechanisms more rigorously. Moreover, qualitative approaches, such as in-depth interviews with accountants, could provide deeper insights into the motivations and barriers behind AI adoption.

Further research should also investigate the role of organizational culture and institutional support in shaping AI adoption patterns. Given the rapid advancements in AI technology, studies should examine how continuous training and education initiatives impact professionals' confidence and willingness to integrate AI into their workflows. Additionally, cross-country comparisons could shed light on how regulatory environments and economic conditions influence AI adoption in accounting.

In conclusion, while AI presents significant opportunities for the accounting profession, its successful integration requires a careful balance between automation and human oversight. Addressing the concerns of professionals through training, regulation, and institutional support will be key to fostering a sustainable and ethical approach to AI adoption in the field.

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