AI Literacy and Adoption Intention among Accounting Professionals: An Empirical Analysis from Telangana

Dr. G. Srinivas
Assistant Professor
Department of Commerce, Telangana University
Email: srinivasecommerce@gmail.com

Artificial Intelligence (AI) is becoming a regular part of accounting work. It is now used for activities such as financial reporting, reconciliation, audit support, tax analysis, forecasting, fraud detection and decision-making. However, simply having access to AI tools does not mean that accounting professionals will use them. This study examines whether AI literacy influences professionals' intention to adopt AI and looks at the roles of perceived usefulness, perceived ease of use, professional trust and awareness of ethical risks. The study used a quantitative questionnaire covering five areas of AI literacy: awareness, functional competence, critical evaluation, understanding of ethical risks and application to accounting tasks. Data were collected from 250 accounting professionals across eighteen districts of Telangana.

The results show that AI literacy was the strongest predictor of intention to adopt AI ($\beta = 0.38$, $p < .001$). It was followed by professional trust ($\beta = 0.19$, $p = .001$) and perceived usefulness ($\beta = 0.17$, $p = .002$). Perceived ease of use ($\beta = 0.09$, $p = .098$) and ethical-risk awareness ($\beta = 0.06$, $p = .288$) were not significant when all the factors were considered together. The five predictors explained 36.7 per cent of the variation in adoption intention ($R^2 = .367$, $F(5,244) = 28.32$, $p < .001$). AI literacy also had a significant relationship with perceived usefulness ($b = 0.33$, $p < .001$) and perceived ease of use ($b = 0.29$, $p < .001$). Its effect on adoption intention remained strong even after these factors were included, suggesting partial rather than complete mediation. AI literacy and adoption intention also differed significantly across some professional characteristics, while adoption intention was additionally related to gender and previous use of AI tools.

Overall, the findings show that AI adoption in accounting is closely connected with professional capability. Professionals who understand what AI can do, know how to use it for accounting tasks and can check whether its outputs are reliable are more willing to adopt it. This relationship remains important even when usefulness, ease of use, trust and ethical concerns are considered. The study therefore treats AI literacy as a separate professional skill rather than viewing AI adoption only in terms of whether a technology is useful or easy to use.

Keywords: Artificial Intelligence, AI literacy, accounting professionals, adoption intention, perceived usefulness, professional trust, ethical awareness.

1. Introduction

Artificial Intelligence is changing the way accounting work is done. Tasks that once required a lot of manual effort, such as classifying transactions, reconciling accounts, identifying exceptions, extracting information from documents, analysing variances and preparing preliminary reports, are increasingly supported by AI-based systems.

Accounting is an important area for studying AI adoption because technology use is closely connected with professional judgement, accountability, confidentiality and regulatory requirements. An accountant may know how to operate an AI tool but still avoid using it if the results cannot be explained, checked or trusted. On the other hand, a professional who understands the strengths and limitations of AI may feel more comfortable using it because they can review the results properly. This is an important difference between AI literacy and basic digital knowledge.

Recent studies support this view. Research involving accounting and auditing professionals shows that AI knowledge is related to perceived usefulness, confidence and intention to use AI. Other studies highlight the importance of technological readiness, trust and infrastructure. Research comparing accounting and non-accounting organisations also suggests that individual skills work together with organisational conditions. These findings indicate that AI adoption should be studied by considering both professional capability and technology-acceptance factors.

Accounting professionals work closely with accounting information systems and managerial decision-making, making them an appropriate group for this study. In India, this issue is relevant to professionals working in accounting firms, corporate finance departments, audit practices, educational institutions and small and medium-sized enterprises. Telangana provides a useful regional setting because its accounting workforce includes both traditional accounting environments and organisations that are rapidly adopting digital technologies.

The main idea of this study is that AI literacy can reduce uncertainty about using AI tools. Professionals who understand what AI can do, know how to give suitable instructions, can evaluate AI-generated results and recognise ethical or accuracy risks are better prepared to use AI in their work. Based on this idea, the study examines the relationship between AI

literacy, perceived usefulness, perceived ease of use, professional trust and adoption intention among 250 accounting professionals in Telangana.

2. Review of Literature

2.1 Artificial Intelligence and accounting practice

AI is increasingly being used in accounting and auditing for automation, pattern recognition, anomaly detection, forecasting and extracting information from documents. Abdullah and Almaqtari (2024) examined AI, Industry 4.0 readiness and Technology Acceptance Model variables in accounting and auditing. Their study reported that AI and related digital technologies can improve accounting and auditing activities. Their findings also show why both technology-related and behavioural factors should be considered when studying AI adoption.

2.2 AI knowledge and professional acceptance

Studies involving accounting and auditing professionals show that AI knowledge is an important part of the acceptance process. A recent study based on the Technology Acceptance Model found that AI knowledge was strongly related to perceived usefulness, self-efficacy and intention to use AI. This supports the idea that professionals' knowledge and skills influence how they understand and accept AI.

2.3 Technological readiness and trust

Indian research also highlights the importance of trust and technological readiness. A study of Chartered Accountants found that trust in technology and technological readiness had significant positive effects on attitudes towards AI adoption. Other research using readiness and acceptance models shows that optimism, innovativeness, discomfort and insecurity can influence how professionals view AI. Therefore, skills alone may not be enough; professionals also need confidence that using AI will not create unacceptable risks for themselves or their organisations.

2.4 AI literacy as a multidimensional capability

AI literacy means more than simply knowing how to operate an AI application. It includes awareness, practical use, evaluation and an understanding of ethical risks. For accounting professionals, this means being able to identify useful AI applications, use AI for accounting tasks, check the accuracy and limitations of AI outputs, protect confidential information and

apply professional judgement when making decisions. This broader view of AI literacy forms the basis of the present study.

2.5 Research gap

Many studies have examined AI readiness, technology acceptance, trust and adoption in accounting. However, fewer studies have placed AI literacy itself at the centre of an adoption-intention model for accounting professionals in a regional Indian setting. Much of the existing research combines several digital technologies or focuses mainly on general technological readiness. This study addresses that gap by treating AI literacy as a separate professional capability and examining its relationship with technology-acceptance factors and intention to adopt AI, using primary data from 250 accounting professionals in Telangana.

3. Objectives of the Study

- To assess the level and dimensions of AI literacy among accounting professionals.
- To examine the relationship between AI literacy and intention to adopt AI for accounting-related work.
- To determine whether perceived usefulness and perceived ease of use mediate the relationship between AI literacy and adoption intention.
- To examine the influence of professional trust and ethical-risk awareness on AI adoption intention.
- To identify differences in AI literacy and adoption intention across selected professional and demographic characteristics.

4. Hypotheses of the Study

- H1: AI literacy has a significant positive influence on perceived usefulness of AI in accounting.
- H2: AI literacy has a significant positive influence on perceived ease of use of AI in accounting.
- H3: Perceived usefulness has a significant positive influence on AI adoption intention.
- H4: Perceived ease of use has a significant positive influence on AI adoption intention.
- H5: Professional trust in AI has a significant positive influence on AI adoption intention.

- H6: Ethical-risk awareness has a significant positive influence on responsible AI adoption intention.
- H7: Perceived usefulness and perceived ease of use significantly mediate the relationship between AI literacy and AI adoption intention.

5. Research Methodology

5.1 Research design

The study used a descriptive and analytical quantitative research design. The individual accounting professional was the unit of analysis. Respondents were involved in accounting, auditing, taxation, financial reporting, management accounting or related finance activities. The survey covered accounting professionals working across eighteen districts of Telangana.

5.2 Population and sampling

The final sample included 250 accounting professionals selected through purposive and snowball sampling. Respondents came from accounting firms, corporate accounting departments, audit practices, educational institutions and small and medium-sized enterprises. All respondents had at least one year of professional experience. The sample included people with different ages, levels of experience, qualifications, job roles, types of organisations and levels of previous exposure to AI tools. Respondents came from eighteen districts, with the largest shares from Nizamabad (11.2%), Kamareddy (8.8%), Hyderabad (8.8%) and Warangal (8.4%). The remaining respondents were from Adilabad, Sangareddy, Nirmal, Karimnagar, Rangareddy, Nalgonda, Medak, Mancherial, Vikarabad, Mahabubnagar, Rajanna Sircilla, Jagtial, Siddipet and Khammam.

5.3 Instrument and measurement

A structured questionnaire with three sections was used. Section A collected demographic and professional information. Section B measured AI literacy in five areas: awareness of AI applications, functional competence, critical evaluation, understanding of ethical risks and application of AI to accounting tasks. Section C measured perceived usefulness, perceived ease of use, professional trust, ethical-risk awareness and intention to adopt AI. All items used a five-point Likert scale, from 1 = strongly disagree to 5 = strongly agree. The questionnaire was pre-tested with a small group of accounting professionals, and a few wording changes were made to make the questions clearer.

5.4 Operationalisation of variables

Table 1: Operationalisation of study constructs

Construct	Indicative dimensions	Measurement
AI Literacy	Awareness; functional competence; evaluation; ethics/risk; task application	5-point Likert scale
Perceived Usefulness	Efficiency; accuracy support; analytical value; productivity	5-point Likert scale
Perceived Ease of Use	Ease of learning; ease of interaction; ease of integration	5-point Likert scale
Professional Trust	Reliability; explainability; confidence; human oversight	5-point Likert scale
Ethical-Risk Awareness	Confidentiality; bias; hallucination/error; accountability	5-point Likert scale
Adoption Intention	Willingness; future use; recommendation; continued use	5-point Likert scale

Source: Compiled with primary data.

5.5 Statistical techniques

The study used frequencies and percentages to describe the respondents' characteristics. Means and standard deviations were used to summarise AI literacy and the other study variables. Cronbach's alpha was used to check internal consistency. Pearson correlation was used to examine relationships between the variables, and multiple regression was used to study the direct effects of AI literacy, perceived usefulness, perceived ease of use, professional trust and ethical-risk awareness on adoption intention. Differences between groups were examined using independent-samples t-tests and one-way ANOVA, with Welch's correction used when group variances were different.

5.6 Ethical considerations

Participation was voluntary and based on informed consent. Respondents were not asked to provide client information, passwords, confidential financial records or private organisational information. Responses were kept anonymous and were reported only in aggregate form. This was especially important because AI-related accounting work may involve sensitive financial and personal information.

6. Results and Discussion

The results in this section are based on the responses of all 250 accounting professionals included in the study. No respondent was removed because of missing data. A small number of AI-use questions were intentionally skipped by respondents who said they had never used an AI tool professionally. Unless otherwise stated, percentages are based on the full sample of 250 respondents.

6.1 Profile of Respondents

Chart 1: Gender and age-group distribution of respondents

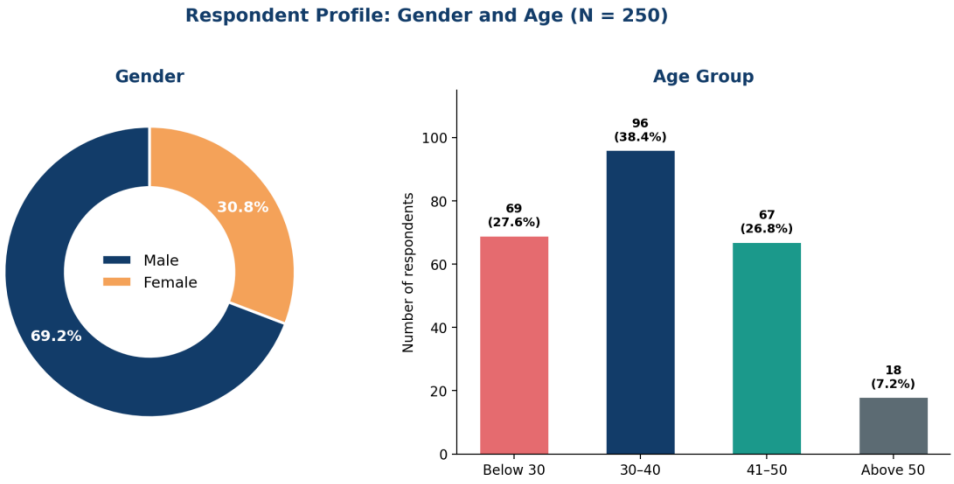


Chart 2: Professional profile - qualification, experience, role and organisation type

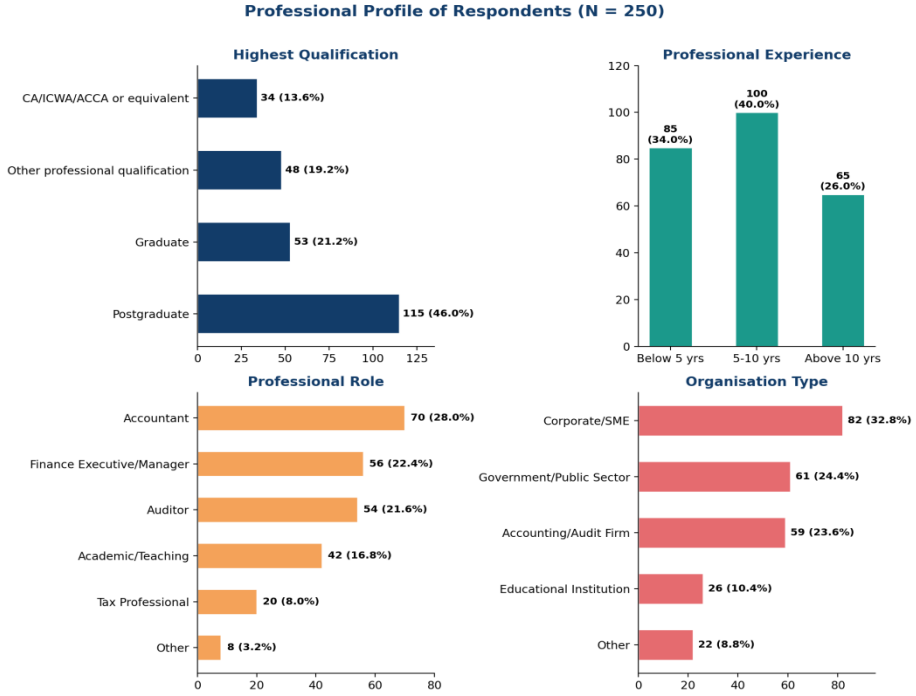


Table 2: Demographic and professional profile of respondents (n = 250)

Variable	Category	Frequency (n = 250)	Percentage (%)
Gender	Male	173	69.2
	Female	77	30.8
Age	Below 30 years	69	27.6
	30-40 years	96	38.4
	41-50 years	67	26.8

Variable	Category	Frequency (n = 250)	Percentage (%)
	Above 50 years	18	7.2
Qualification	Graduate	53	21.2
	Postgraduate	115	46.0
	CA/ICWA/ACCA or equivalent	34	13.6
	Other professional qualification	48	19.2
Experience	Below 5 years	85	34.0
	5-10 years	100	40.0
	Above 10 years	65	26.0
Professional role	Accountant	70	28.0
	Finance executive/manager	56	22.4
	Auditor	54	21.6
	Academic/teaching	42	16.8
	Tax professional	20	8.0
	Other	8	3.2
Organisation type	Corporate/SME	82	32.8
	Government/public sector	61	24.4
	Accounting/audit firm	59	23.6
	Educational institution	26	10.4
	Other	22	8.8
Organisation size	Small	78	31.2
	Medium	117	46.8
	Large	55	22.0

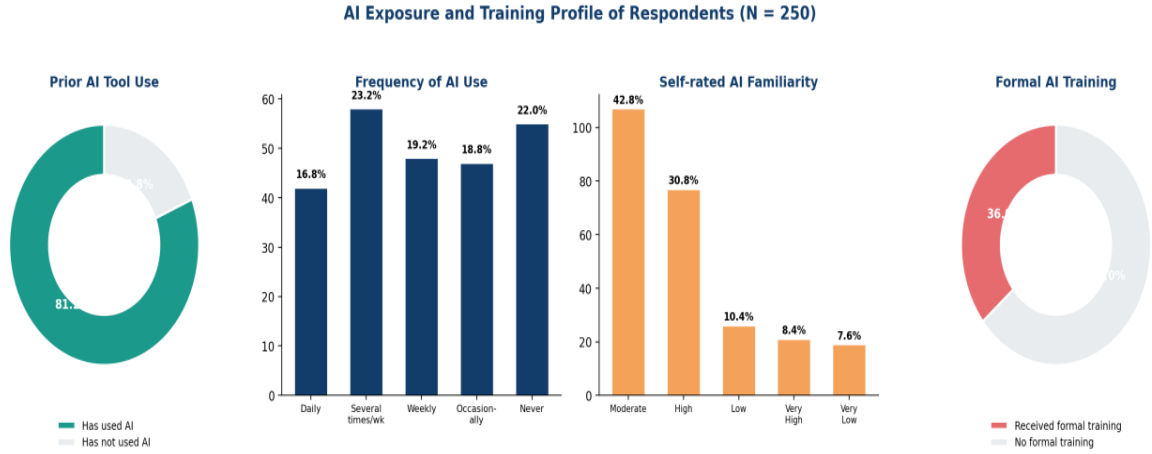
Source: Compiled with primary data.

The sample included 69.2 per cent men and 30.8 per cent women. The largest age group was 30–40 years (38.4 per cent), followed by respondents below 30 years (27.6 per cent), those aged 41–50 years (26.8 per cent) and those above 50 years (7.2 per cent). Nearly half of the respondents (46.0 per cent) were postgraduates. Graduates accounted for 21.2 per cent, respondents with other professional qualifications for 19.2 per cent, and CA, ICWA or ACCA-qualified respondents for 13.6 per cent. In terms of experience, 40.0 per cent had 5–10 years of experience, 34.0 per cent had less than five years and 26.0 per cent had more than ten years. Accountants formed the largest professional group (28.0 per cent), followed by finance executives/managers (22.4 per cent), auditors (21.6 per cent), academics (16.8 per cent), tax

professionals (8.0 per cent) and others (3.2 per cent). Corporate/SME organisations accounted for 32.8 per cent of respondents, followed by government/public-sector organisations (24.4 per cent), accounting/audit firms (23.6 per cent), educational institutions (10.4 per cent) and other organisations (8.8 per cent). Medium-sized organisations were the largest group, accounting for 46.8 per cent. Overall, the sample included respondents from different career stages, qualifications, roles and organisational settings.

6.2 AI Exposure and Training

Chart 3: AI exposure and training profile of respondents



AI exposure was fairly high. About 81.2 per cent of respondents said they had used an AI tool professionally, while 18.8 per cent had not. However, only 36.0 per cent had received formal AI training. Looking at frequency of use across all respondents, 16.8 per cent used AI tools daily, 23.2 per cent several times a week, 19.2 per cent weekly, 18.8 per cent occasionally and 22.0 per cent never. Among the 203 respondents who had used an AI tool, generative AI or chatbot applications were the most common (34.5 per cent), followed by AI features built into accounting software (31.5 per cent). OCR/document-extraction tools accounted for 14.3 per cent, audit/analytics AI for 13.3 per cent and other applications for 6.4 per cent. The main accounting uses were reconciliation (23.6 per cent), reporting and documentation (22.7 per cent), forecasting and analysis (19.2 per cent), fraud or anomaly detection (14.8 per cent), audit support (8.9 per cent) and tax research (6.9 per cent). Most respondents rated their familiarity as moderate (42.8 per cent) or high (30.8 per cent). The difference between professional AI use (81.2 per cent) and formal training (36.0 per cent) shows that many professionals are learning and using AI without structured training.

6.3 AI Literacy among Accounting Professionals

Chart 4: AI literacy dimensions among accounting professionals

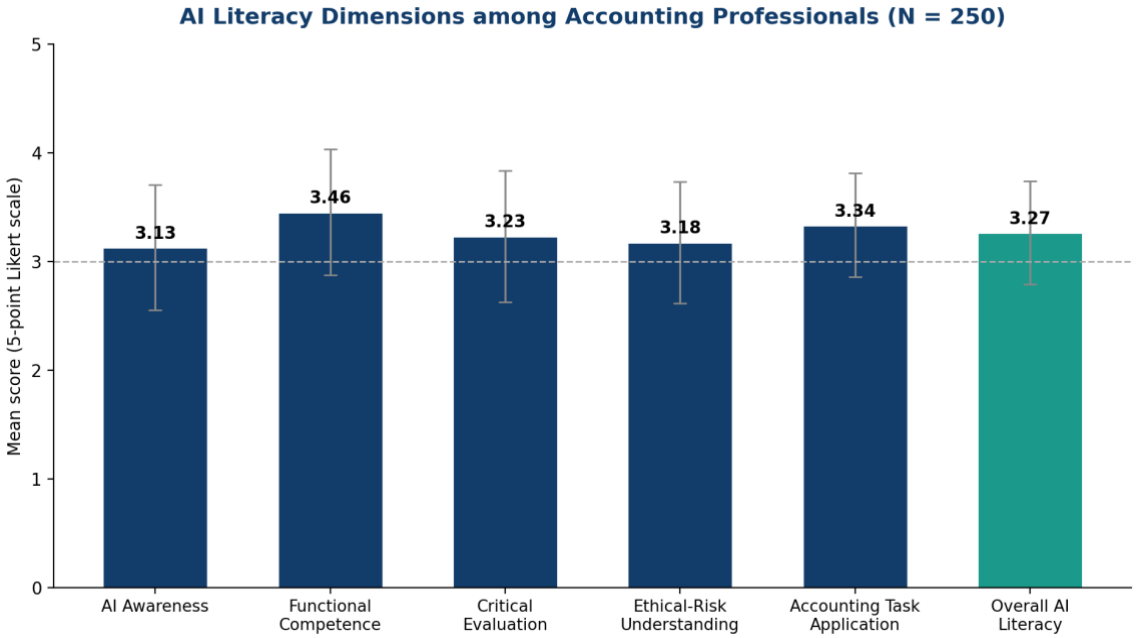


Table 3: Descriptive statistics and reliability of AI literacy dimensions (n = 250). Interpretation bands: up to 1.80 = very low, 1.81-2.60 = low, 2.61-3.40 = moderate, 3.41-4.20 = high, above 4.20 = very high.

AI literacy dimension	Mean	SD	Alpha (α)	Interpretation
AI awareness	3.13	0.57	0.79	Moderate
Functional competence	3.46	0.58	0.82	High
Critical evaluation	3.23	0.61	0.83	Moderate
Ethical-risk understanding	3.18	0.56	0.82	Moderate
Accounting task application	3.34	0.48	0.72	Moderate
Overall AI literacy (25 items)	3.27	0.48	0.94	Moderate-high

Source: Compiled with primary data.

Among the five areas of AI literacy, functional competence had the highest average score (M = 3.46) and was the only area in the high range. It was followed by accounting task application (M = 3.34), critical evaluation (M = 3.23), ethical-risk understanding (M = 3.18) and general AI awareness (M = 3.13), all of which were in the moderate range. Overall AI literacy was 3.27 out of 5, which is near the upper end of the moderate range. An interesting finding is that respondents rated their practical ability to use AI higher than their general awareness of AI. This may mean that some professionals have learned AI mainly through practical use. The reliability values for the five dimensions ranged from 0.72 to 0.83, while the full 25-item AI literacy scale had an alpha of 0.94.

6.4 Perceptions and Adoption Intention

Chart 5: Technology-acceptance constructs and adoption intention

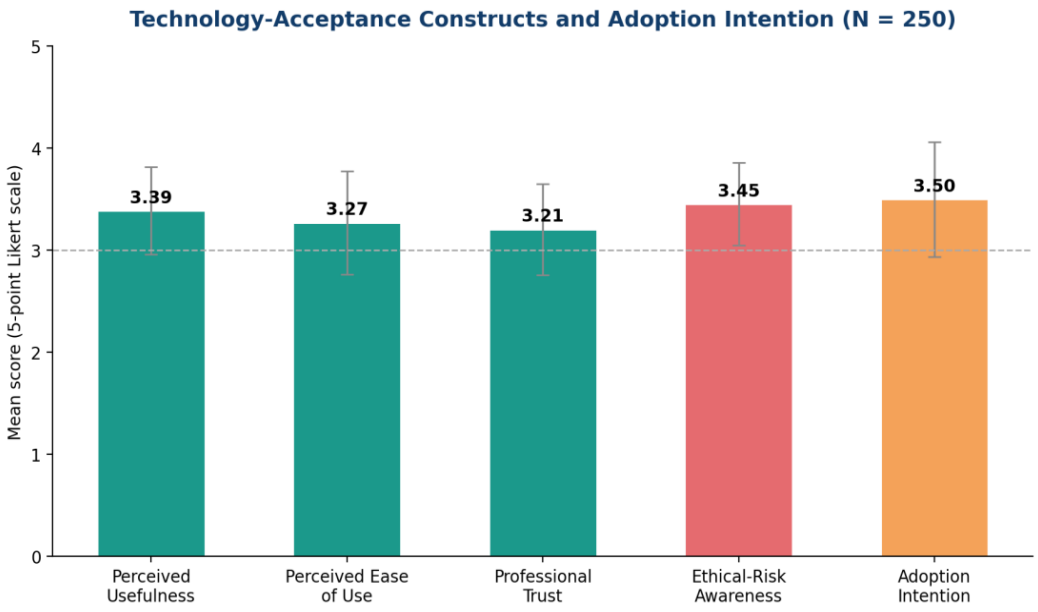


Table 4: Descriptive statistics and reliability of study constructs (n = 250)

Construct	Mean	SD	Alpha (α)
Perceived usefulness	3.39	0.43	0.66
Perceived ease of use	3.27	0.51	0.77
Professional trust	3.21	0.45	0.67
Ethical-risk awareness	3.45	0.40	0.62
Adoption intention	3.50	0.56	0.79

Source: Compiled with primary data.

Among the five constructs, adoption intention had the highest mean score (M = 3.50), followed by ethical-risk awareness (M = 3.45) and perceived usefulness (M = 3.39). Perceived ease of use had a mean of 3.27 and professional trust had the lowest mean of 3.21. In simple terms, respondents showed a fairly strong intention to use AI even though their level of trust and ease of use was somewhat lower. Perceived ease of use (alpha = 0.77) and adoption intention (alpha = 0.79) showed acceptable reliability. However, perceived usefulness (0.66), professional trust (0.67) and ethical-risk awareness (0.62) were below the commonly used 0.70 benchmark and should therefore be interpreted with some caution.

6.5 Correlation Analysis

Chart 6: Correlation matrix of AI literacy and study constructs

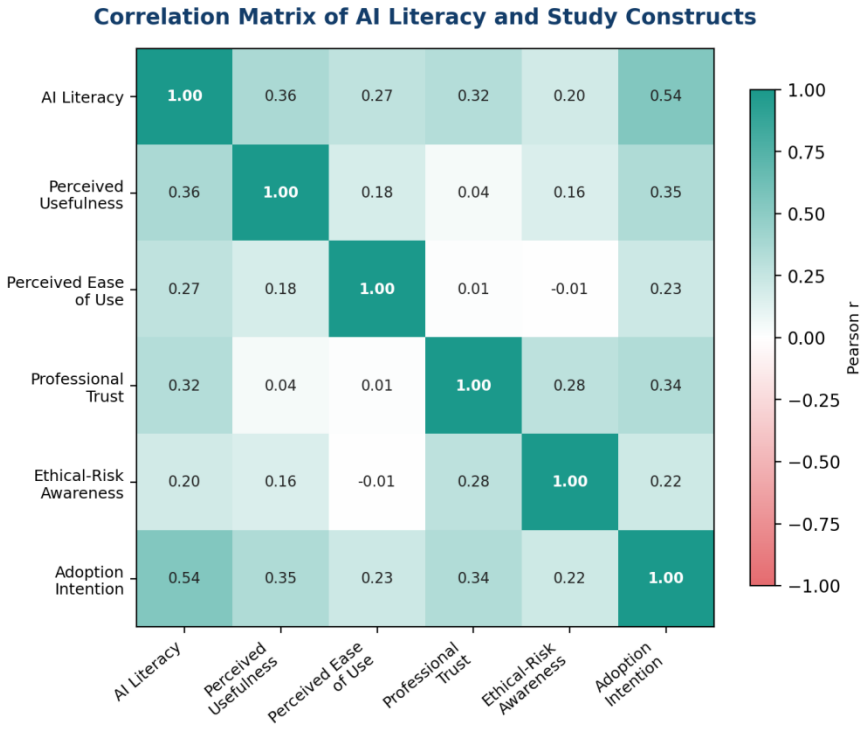


Table 5: Pearson correlation matrix - AI literacy and study constructs (n = 250)

Variable	AI Literacy	PU	PEOU	Trust	Ethical Awareness	Adoption Intention
AI Literacy	1.00	0.36	0.27	0.32	0.20	0.54
Perceived Usefulness		1.00	0.18	0.04	0.16	0.35
Perceived Ease of Use			1.00	0.01	-0.01	0.23
Professional Trust				1.00	0.28	0.34
Ethical Awareness					1.00	0.22
Adoption Intention						1.00

Source: Compiled with primary data.

AI literacy had a positive relationship with all the other variables in the study. Its strongest relationship was with adoption intention (r = 0.54), followed by perceived usefulness (r = 0.36), professional trust (r = 0.32), perceived ease of use (r = 0.27) and ethical-risk awareness (r = 0.20). The other factors also showed positive relationships with adoption intention, with correlations ranging from 0.22 to 0.35. The relationships among the predictor variables were relatively weak. For example, perceived usefulness and perceived ease of use had a correlation of 0.18, while perceived usefulness and professional trust had a correlation of 0.04. Perceived

ease of use and ethical-risk awareness had almost no relationship (r = -0.01). Since none of the predictor correlations was above 0.36, serious multicollinearity was not indicated.

6.6 Regression Analysis

The regression model including all five factors was statistically significant and explained 36.7 per cent of the variation in adoption intention (R^2 = .367). AI literacy had the largest standardised effect (β = 0.38), followed by professional trust (β = 0.19) and perceived usefulness (β = 0.17). When all five factors were considered together, perceived ease of use (β = 0.09) and ethical-risk awareness (β = 0.06) were not statistically significant. The results also showed that the predictor variables were not strongly overlapping with one another.

Chart 7: Standardised regression coefficients predicting AI adoption intention

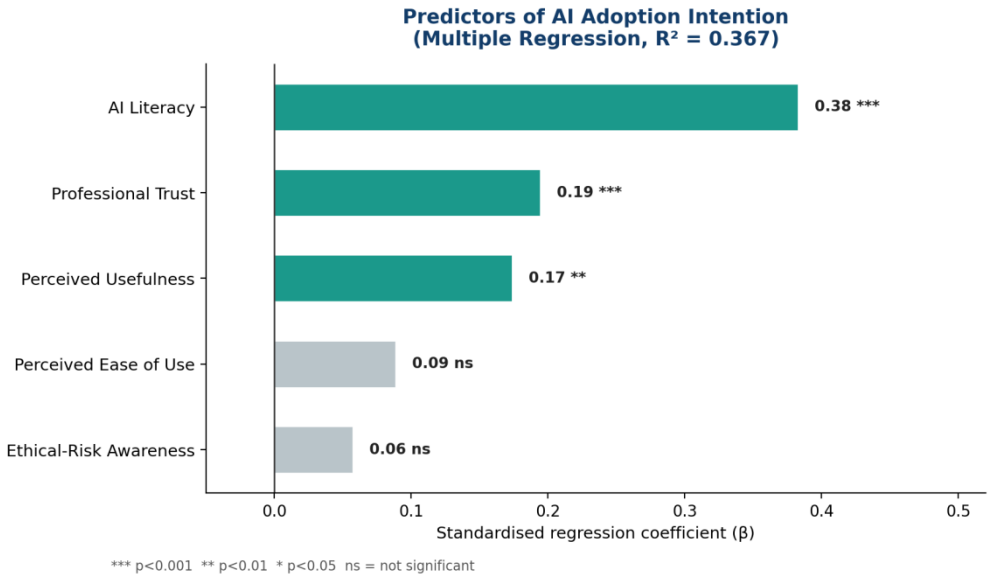


Table 6: Multiple regression results (Dependent variable: Adoption Intention). R^2 = 0.367, Adjusted R^2 = 0.354, F(5,244) = 28.32, p < 0.001

Predictor	β (standardised)	t-value	p-value	Decision
AI literacy	0.38	6.41	<0.001	Supported
Perceived usefulness	0.17	3.14	0.002	Supported
Perceived ease of use	0.09	1.66	0.098	Not supported (full model)
Professional trust	0.19	3.48	0.001	Supported
Ethical-risk awareness	0.06	1.07	0.288	Not supported (full model)

Source: Compiled with primary data.

The hypothesis results show that H1 and H2 were supported: AI literacy significantly predicted both perceived usefulness and perceived ease of use. H3 and H5 were also supported because

perceived usefulness and professional trust had significant positive effects on adoption intention after AI literacy was taken into account. H4 was not supported in the full model because perceived ease of use was significant when considered alone but was not significant after the other factors were included. H6 showed a similar pattern: ethical-risk awareness was related to adoption intention by itself but was not significant in the full model. H7 was partly supported because AI literacy showed a mediation effect through perceived usefulness, but not through perceived ease of use.

Table 7: Summary of hypothesis testing based on field data (n = 250)

Hypothesis	Relationship	Outcome	Status
H1	AI Literacy → Perceived Usefulness	b = 0.33, p < .001	Supported
H2	AI Literacy → Perceived Ease of Use	b = 0.29, p < .001	Supported
H3	Perceived Usefulness → Adoption Intention	β = 0.17, p = .002 (full model)	Supported
H4	Perceived Ease of Use → Adoption Intention	Significant bivariately (r = .23); not significant in full model (p = .098)	Not supported (full model)
H5	Professional Trust → Adoption Intention	β = 0.19, p = .001	Supported
H6	Ethical-Risk Awareness → Adoption Intention	Significant bivariately (r = .22); not significant in full model (p = .288)	Not supported (full model)
H7	PU and PEOU mediate AI Literacy → Adoption Intention	Partial mediation via PU; no mediation via PEOU	Partially supported

Source: Compiled with primary data.

Overall, five of the seven hypotheses were fully or partly supported. The results indicate that AI literacy has an important direct relationship with adoption intention and also influences adoption through perceived usefulness. Professional trust also makes a separate contribution. Perceived ease of use and ethical-risk awareness are related to adoption in simple relationships, but they do not have an independent significant effect after the other factors are considered together.

6.7 Differences by Professional and Behavioural Characteristics

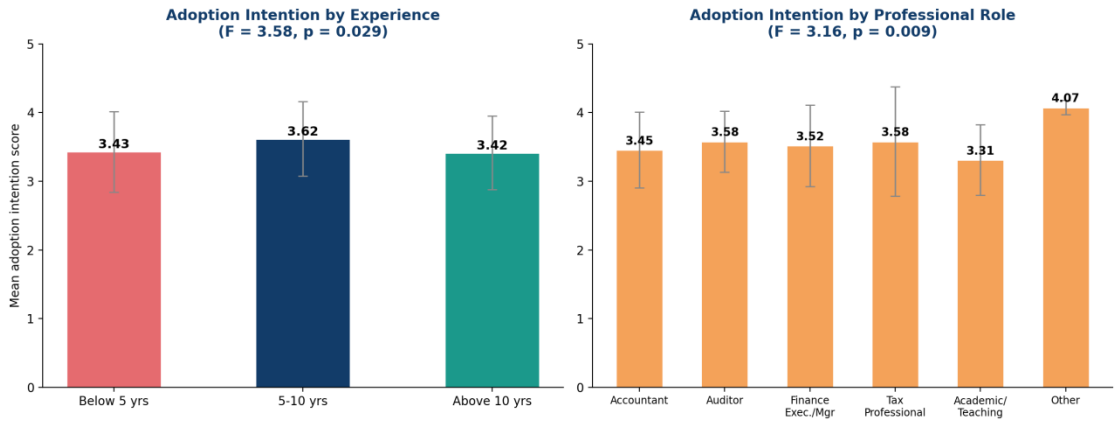
Table 8: Group comparisons of AI literacy and adoption intention by professional and behavioural characteristics

Comparison	Test	Statistic	p-value	Result
AI literacy by gender	Independent-samples t-test	t = 0.59	0.559	Not significant
Adoption intention by gender	Independent-samples t-test	t = 2.10	0.037	Significant (male higher)

Comparison	Test	Statistic	p-value	Result
AI literacy by prior AI tool use	Welch's t-test	t = 0.77	0.442	Not significant
Adoption intention by prior AI tool use	Welch's t-test	t = 2.74	0.008	Significant (users higher)
AI literacy by formal AI training	Independent-samples t-test	t = 0.20	0.846	Not significant
Adoption intention by formal AI training	Independent-samples t-test	t = 1.72	0.086	Not significant (borderline)
AI literacy by age group	One-way ANOVA	F = 2.19	0.090	Not significant (borderline)
Adoption intention by age group	One-way ANOVA	F = 3.71	0.012	Significant
AI literacy by experience band	One-way ANOVA	F = 4.04	0.019	Significant
Adoption intention by experience band	One-way ANOVA	F = 3.58	0.029	Significant
AI literacy by qualification	One-way ANOVA	F = 3.33	0.020	Significant
Adoption intention by qualification	One-way ANOVA	F = 6.30	<0.001	Significant
AI literacy by professional role	One-way ANOVA	F = 4.11	0.001	Significant
Adoption intention by professional role	One-way ANOVA	F = 3.16	0.009	Significant

Source: Compiled with primary data.

Chart 8: Adoption intention by professional experience and professional role



Adoption intention differed across several professional groups, while differences in AI literacy were smaller. Men reported a higher adoption intention than women (3.55 versus 3.39). Respondents who had already used AI at work also reported higher adoption intention than those who had not (3.54 versus 3.32). Prior AI use, however, was not associated with higher AI literacy. Adoption intention also varied by age, experience, qualification and professional role. The highest mean was reported by the 30–40 age group (3.62), while the lowest was among respondents above 50 years (3.20). Respondents with 5–10 years of experience reported the highest adoption intention. By qualification, the lowest mean was among CA/ICWA/ACCA

holders (3.25) and the highest among respondents with other professional qualifications (3.76). By role, academics reported the lowest mean (3.31). AI literacy also differed by experience, qualification and role, but not by gender, prior AI use, formal training or age. Formal AI training was not significantly related to either AI literacy or adoption intention in this sample.

7. Discussion

The results suggest that feeling capable of using AI is closely connected with the intention to adopt it. Three main points come from the study.

First, AI literacy had the strongest relationship with adoption intention. It also increased perceived usefulness, which in turn was related to adoption intention. This relationship remained significant even after trust and ethical-risk awareness were considered. Respondents also scored higher on practical AI skills and applying AI to accounting tasks than on general AI awareness. This may indicate that many professionals develop AI skills through practical experience rather than formal training.

Second, perceived usefulness and professional trust each contributed to adoption intention even after AI literacy was considered. Ease of use and awareness of ethical risks were also related to adoption, but they did not remain significant when all factors were examined together. This suggests that professionals may be willing to use AI even when it is not completely easy to use, as long as they see clear value in it and have enough confidence in its results.

Third, adoption intention showed larger differences across professional groups than AI literacy. Adoption intention was higher among men, among professionals who had already used AI, and among those with 5–10 years of experience. It was lower among academics and CA/ICWA/ACCA-qualified respondents in this sample. Because AI literacy did not differ to the same extent across these groups, the differences may be connected to attitudes, motivation or workplace conditions. These findings suggest that general AI awareness programmes alone may not address every barrier to adoption.

These findings provide an additional perspective on the Technology Acceptance Model. The traditional model gives an important role to ease of use. In this study, however, ease of use was not an independent predictor after AI literacy, usefulness, trust and ethical-risk awareness were considered together. Professional trust and perceived usefulness remained significant. This is relevant to accounting because professionals remain responsible for

checking AI-supported work and making the final decisions. AI literacy, trust and practical usefulness therefore appear to be important factors in the adoption of AI in accounting.

8. Practical Implications

For accounting professionals: Professional development programmes can build on the practical AI skills that many professionals already have. Training can then focus more on checking AI outputs, recognising errors and applying AI properly to accounting tasks.

For accounting firms and organisations: The study found larger differences in adoption intention than in AI literacy across gender, qualification and professional role. Organisations can therefore combine general AI training with activities that address the practical and workplace factors that influence employees' willingness to use AI.

For professional bodies and universities: AI literacy can be included in accounting education and continuing professional development. Case-based learning can connect AI with accounting standards, taxation, auditing, financial analysis and ethics. The gap between previous AI use (81.2 per cent) and formal training (36.0 per cent) also suggests a need to bring informal learning into structured education and training.

For technology providers: In this sample, professional trust and perceived usefulness were significant predictors of adoption intention, while ease of use was not significant in the full model. Accounting-related AI systems can therefore focus not only on a simple interface but also on accuracy, clear explanations and audit trails that help professionals check the results.

For policymakers: Digital-skills programmes for accounting professionals can treat AI literacy as a separate professional competency that needs to be developed and measured. Access to digital tools alone may not automatically lead to strong AI literacy.

9. Limitations and Scope for Future Research

The study has several limitations. Because the research was cross-sectional, it cannot show long-term cause-and-effect relationships. AI literacy and adoption intention were self-reported, so they may not exactly reflect actual workplace behaviour. The use of purposive and snowball sampling may also have introduced selection bias, and the sample had more men than women (69.2 per cent). The findings are based on Telangana that to selected districts and may not apply directly to accounting professionals in other parts of India.

10. Conclusion

AI is becoming an important part of accounting work, but successful and responsible adoption depends on more than simply having AI tools. Accounting professionals need to understand AI, know where it can be used, check its outputs and manage issues such as confidentiality, accuracy and ethics. Based on the responses of 250 accounting professionals from eighteen districts of Telangana, this study found that AI literacy had the strongest relationship with intention to adopt AI. Perceived usefulness and professional trust also had significant effects, while perceived ease of use and ethical-risk awareness were not significant in the full regression model.

The findings suggest that organisations should treat AI literacy as an important professional skill and develop it through practical training and continuous learning. At the same time, differences in adoption intention across gender, qualification, role and previous AI use show that improving skills alone may not remove every barrier. A practical approach to AI-enabled accounting is therefore one in which AI supports routine and analytical work while accounting professionals continue to provide judgement, verification and accountability. Building AI literacy, trust and a clear understanding of the practical value of AI can help professionals use these tools more effectively and responsibly.

References

1. Abdullah, A. A. H., & Almaqtari, F. A. (2024). The impact of artificial intelligence and Industry 4.0 on transforming accounting and auditing practices. Journal of Open Innovation: Technology, Market, and Complexity, 10(1), 100218.

2. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319-340.

3. Dietvorst, B. J., Simmons, J. P., & Massey, C. (2015). Algorithm aversion: People erroneously avoid algorithms after seeing them err. Journal of Experimental Psychology: General, 144(1), 114-126.

4. Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. MIS Quarterly, 27(1), 51-90.

5. Ribeiro, M. T., Singh, S., & Guestrin, C. (2016). "Why should I trust you?": Explaining the predictions of any classifier. Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, 1135-1144.

6. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 27(3), 425-478.