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[AI PRACTICES, TRUST, AND CLOUD ACCOUNTING ADOPTION: A MODERATION ANALYSIS IN RESOURCE-CONSTRAINED ENVIRONMENTS]

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ABSTRACT

The rapid evolution of artificial intelligence (AI) and cloud-based accounting systems (CBAS) presents transformative opportunities for small and medium enterprises (SMEs), yet adoption remains inconsistent in developing economies due to resource constraints, infrastructural gaps, and cultural skepticism. This study examines how AI practices influence intentions to adopt CBAS among SME accountants and owners in Southern districts Khyber Pakhtunkhwa (KP) Province, Pakistan, with a focus on the moderating role of trust in AI. Grounded in the Unified Theory of Acceptance and Use of Technology (UTAUT) and trust theory, the research proposes that AI practices (e.g., automation efficiency, predictive analytics) positively drive adoption intentions (H1), while trust in AI amplifies this relationship (H2). A cross-sectional survey of 401 SME professionals was conducted, utilizing validated scales to measure AI practices, trust in AI, and CBAS adoption intentions. Data analysis revealed a small but significant direct effect of AI practices on adoption intentions. Critically, trust in AI emerged as a significant moderator, strengthening the positive impact of AI practices on adoption decisions. This underscores trust's role in mitigating perceived risks (e.g., data breaches, ethical concerns) and bridging the gap between technological utility and socio-cultural reservations in KP's context. The findings extend UTAUT by integrating trust as a contextual moderator, offering a localized framework for AI adoption in high-stakes, resource-constrained environments. Practically, the study highlights the need for AI implementation strategies that prioritize transparency, ethical governance, and capacity-building initiatives tailored to SMEs' socio-technical realities.

Keywords: Artificial intelligence, cloud-based accounting, trust, SME adoption, UTAUT, Pakistan.

Introduction

The rapid evolution of artificial intelligence (AI) has reshaped accounting practices globally, driving a shift toward cloud-based solutions that offer scalability, cost efficiency, and real-time data accessibility (Warren et al., 2015; Senarathna et al., 2014). For small and medium enterprises (SMEs) and accounting professionals in regions like Southern districts Khyber Pakhtunkhwa (KP) Province, Pakistan, cloud-based accounting systems (CBAS) present transformative opportunities to streamline financial operations and enhance competitiveness (Ahmad et al., 2020). However, the adoption of these technologies remains uneven, particularly in developing economies, where resource constraints, limited digital infrastructure, and cultural skepticism toward automation persist (Hussain et al., 2019; Salleh et al., 2017). While AI-driven tools, such as automated bookkeeping and predictive analytics, promise to reduce human error and improve decision-making (Moll & Yigitbasioglu, 2019), accountants and SME owners in KP Province often express reservations about AI's reliability, transparency, and alignment with ethical standards (Glikson & Woolley, 2020; Arslan et al., 2022). These concerns underscore the critical role of trust in AI—a psychological construct reflecting confidence in the technology's dependability and ethical soundness—which may either facilitate or hinder the transition to cloud-based systems (Venkatesh et al., 2003; Dwivedi et al., 2019). Despite growing recognition of AI's potential in accounting, empirical studies focusing on

SMEs and professionals in regions like KP Province are scarce, leaving gaps in understanding how localized trust dynamics interact with technological perceptions to shape adoption behaviors (Khan et al., 2021; Kokina et al., 2021).

Prior research has extensively explored generic adoption drivers such as perceived usefulness and ease of use (Venkatesh et al., 2003), yet few studies contextualize these factors within the unique challenges faced by accountants and SME owners in developing economies. For instance, in KP Province, where SMEs often operate with limited IT budgets and rely on traditional manual processes, the perceived risks of data breaches or algorithmic errors in AI-powered CBAS may exacerbate resistance (Hussain et al., 2019; Ahmad et al., 2020). Furthermore, while trust in technology is a well-established determinant of adoption in broader contexts (Gefen et al., 2003), its moderating role in the relationship between AI-specific practices—such as automation accuracy and system transparency—and CBAS adoption remains understudied, particularly among accountants who bear fiduciary responsibilities (Arslan et al., 2022; Cao et al., 2021). This gap is critical, as accountants in KP Province often serve as both technology adopters and ethical gatekeepers, balancing efficiency gains with concerns about job displacement and loss of professional autonomy (Kokina et al., 2021; Moll & Yigitbasioglu, 2019). Existing literature also overlooks how socio-cultural factors, such as collective skepticism toward AI in conservative business environments, influence trust formation (Dwivedi et al., 2019; Salleh et al., 2017), limiting the applicability of global frameworks to localized settings like KP.

This study addresses these gaps by investigating how trust in AI moderates the impact of AI practices—including perceived usefulness, ease of use, and perceived risks—on accountants' and SME owners' intentions to adopt CBAS in KP Province. By integrating constructs from the Unified Theory of Acceptance and Use of Technology (UTAUT) with trust theory (Venkatesh et al., 2003; Glikson & Woolley, 2020), the research provides a nuanced framework to explain adoption behaviors in under-researched contexts. The findings will contribute theoretically by extending technology acceptance models to incorporate AI-specific trust dynamics, offering insights into how functional benefits and psychological assurances interact to drive decision-making. Practically, the study will inform policymakers and software developers in designing targeted interventions—such as AI literacy programs, transparent algorithmic practices, and localized cybersecurity protocols—to address the unique needs of KP's SME sector. For accountants and business owners, the research highlights strategies to reconcile AI's operational advantages with ethical and professional concerns, fostering a culture of informed trust. By centering on a region marked by digital transition challenges, this study also advances contextual knowledge, bridging the divide between global AI innovation and localized adoption realities in emerging economies (Khan et al., 2021; Ahmad et al., 2020).

Literature Review

Unified Theory of Acceptance and Use of Technology (UTAUT) Perspective

The theoretical foundation of this study is anchored in the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003), which posits that performance expectancy (perceived usefulness), effort expectancy (ease of use), and social influence shape technology adoption intentions. However, given the unique context of AI-driven

cloud-based accounting systems (CBAS) and the ethical, fiduciary responsibilities of accountants in Southern districts Khyber Pakhtunkhwa (KP) Province, Pakistan, this framework is extended to incorporate trust in AI as a critical moderator (Glikson & Woolley, 2020; Arslan et al., 2022). Trust, defined as confidence in AI's reliability, transparency, and ethical alignment, is particularly salient in regions like KP, where socio-cultural skepticism toward automation and reliance on interpersonal business networks amplify perceived risks of data breaches or algorithmic bias (Hussain et al., 2019; Salleh et al., 2017). The integration of trust theory (Gefen et al., 2003) into UTAUT addresses a gap in existing models, which often overlook how psychological assurances interact with functional benefits to influence adoption in high-stakes, resource-constrained environments (Dwivedi et al., 2019). For instance, while UTAUT emphasizes technical utility, accountants and SME owners in KP may prioritize trust-building factors—such as vendor reputation, algorithmic transparency, and compliance with local ethical norms—over mere efficiency gains (Ahmad et al., 2020; Khan et al., 2021). This hybrid framework also accounts for the dual role of accountants as both adopters and ethical gatekeepers, balancing AI's operational advantages against concerns about job displacement or erosion of professional autonomy (Kokina et al., 2021; Moll & Yigitbasioglu, 2019). By contextualizing UTAUT within the socio-technical realities of KP Province—marked by limited digital literacy, weak regulatory oversight, and cultural preference for human oversight—this study advances a localized theoretical model that bridges global AI innovation with the trust-driven adoption challenges faced by SMEs and accounting professionals in emerging economies (Cao et al., 2021; Senarathna et al., 2014).

Review of Literature and Hypothesis Development

The integration of artificial intelligence (AI) into accounting practices has garnered significant scholarly attention, particularly for its potential to enhance efficiency, accuracy, and decision-making in financial management. Cloud-based accounting systems (CBAS), powered by AI, enable real-time data access, automated reporting, and cost-effective scalability, which are critical for small and medium enterprises (SMEs) seeking to optimize resource-constrained operations (Senarathna et al., 2014; Warren et al., 2015). However, adoption rates remain uneven in developing economies like Pakistan, where SMEs and accounting professionals in regions such as Southern districts Khyber Pakhtunkhwa (KP) Province face unique challenges, including limited digital infrastructure, financial constraints, and cultural resistance to technological disruption (Ahmad et al., 2020; Hussain et al., 2019). Research indicates that AI-driven tools, such as predictive analytics and robotic process automation (RPA), reduce manual errors and improve audit precision, yet their adoption hinges on users' perceptions of usefulness and ease of use (Moll & Yigitbasioglu, 2019; Cao et al., 2021). For instance, Venkatesh et al. (2003) emphasize these factors in the Unified Theory of Acceptance and Use of Technology (UTAUT), but their applicability to AI-specific contexts, particularly in conservative business environments like KP, remains understudied.

Trust in AI systems has emerged as a pivotal determinant of technology adoption, particularly in professions like accounting where ethical and fiduciary responsibilities are paramount (Glikson & Woolley, 2020; Arslan et al., 2022). Trust is defined as the confidence in AI's reliability, transparency, and alignment with ethical standards, and it mediates how users perceive risks such as data breaches, algorithmic bias, or job

displacement (Dwivedi et al., 2019; Kokina et al., 2021). In KP Province, where SMEs often rely on informal networks and personal relationships for business transactions, skepticism toward AI's "black-box" decision-making processes is heightened, exacerbating resistance to CBAS adoption (Salleh et al., 2017; Khan et al., 2021). Studies in developing economies highlight that trust is not merely a function of technological performance but is also shaped by socio-cultural norms, institutional support, and perceived fairness (Gefen et al., 2003; Dwivedi et al., 2019). For example, Hussain et al. (2019) found that Pakistani SMEs prioritize vendor reputation and peer recommendations when adopting new technologies, suggesting that interpersonal trust may compensate for low institutional trust in AI systems.

The interplay between AI practices and trust is further complicated by contextual factors unique to regions like KP Province. While global literature underscores the cost-efficiency and scalability of CBAS (Dimitriu & Matei, 2015), localized studies reveal that SMEs in Pakistan often lack the technical literacy to navigate AI tools, amplifying perceived complexity and risks (Ahmad et al., 2020; Khan et al., 2021). Accountants, who serve as both adopters and gatekeepers of financial integrity, express concerns that over-reliance on AI could erode professional judgment or lead to compliance failures, particularly in environments with weak regulatory oversight (Arslan et al., 2022; Kokina et al., 2021). Additionally, the absence of localized AI governance frameworks in Pakistan exacerbates fears of data misuse, as cloud systems often depend on foreign servers subject to international jurisdictions (Salleh et al., 2017; Dwivedi et al., 2019). These findings align with Glikson and Woolley's (2020) assertion that trust in AI is multidimensional, encompassing technical competence, ethical alignment, and social legitimacy—dimensions often misaligned in regions undergoing digital transition.

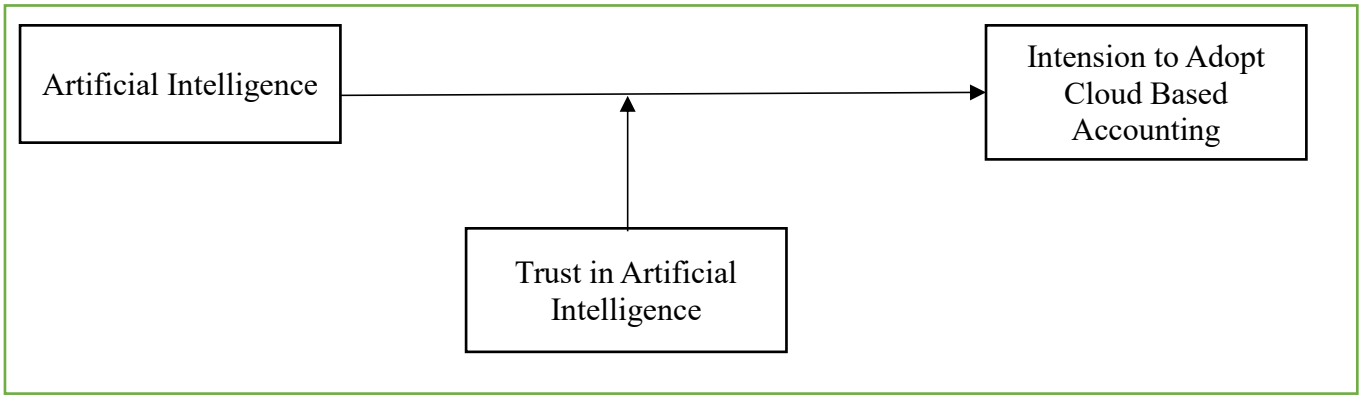
Despite growing recognition of AI's transformative potential, critical gaps persist in the literature. First, while studies like Venkatesh et al. (2003) and Gefen et al. (2003) provide robust models of technology acceptance, they do not account for AI-specific trust dynamics, particularly in high-stakes professions like accounting. Second, existing research on AI adoption in developing economies often generalizes findings across sectors, neglecting the nuanced challenges faced by accountants and SME owners in regions like KP Province, where digital literacy and infrastructure lag behind global standards (Hussain et al., 2019; Khan et al., 2021). Third, socio-cultural factors, such as collective skepticism toward automation and preference for human oversight, are rarely integrated into adoption frameworks, despite their profound influence on trust formation (Dwivedi et al., 2019; Salleh et al., 2017). Finally, while Cao et al. (2021) and Moll and Yigitbasioglu (2019) explore AI's technical capabilities, they overlook how trust moderates the relationship between perceived AI benefits (e.g., efficiency) and adoption intentions, leaving a critical void in understanding behavioral drivers. This study addresses these gaps by examining how trust in AI shapes accountants' and SME owners' responses to AI practices in KP Province, offering a contextualized model that bridges global technological trends with localized adoption realities. From the following we hypothesised that"

Hypothesis 1 (H1): AI practices (e.g., automation efficiency, predictive analytics) positively influence SMEs' intentions to adopt cloud-based accounting systems (CBAS).

Hypothesis 2 (H2): Trust in AI moderates the relationship between AI practices and CBAS

adoption intentions, such that higher trust strengthens the positive effect of AI practices on adoption.

Research Framework (Figure 1)



Methods

This study employed a cross-sectional survey design to examine the relationship between AI practices, trust in AI, and intentions to adopt cloud-based accounting systems (CBAS) among small and medium enterprise (SME) accountants and owners in Southern districts Khyber Pakhtunkhwa (KP) Province, Pakistan. Data was collected from 401 participants using a structured questionnaire adapted from validated scales in prior literature. AI practices were measured using an 11-item scale developed by Assidi et al. (2024), assessing dimensions such as automation efficiency, predictive analytics, and AI integration in daily accounting tasks. Trust in AI was evaluated through an 11-item scale adapted from Chowdhury et al. (2022), focusing on reliability, transparency, and ethical alignment of AI systems. Intention to adopt CBAS was operationalized using a 4-item scale synthesized from Chatterjee et al. (2021), Davis (1989), Gangwar et al. (2015), and Abdulwahab Mujalli et al. (2024), capturing respondents' willingness to transition to cloud-based solutions. All constructs utilized a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree).

The target population included accountants and business owners of SMEs registered with the KP Chamber of Commerce, spanning sectors such as retail, manufacturing, and services. A stratified random sampling technique ensured representation across firm sizes (micro, small, medium) and industries. Data collection was conducted via both online platforms (e.g., Google Forms) and in-person surveys to accommodate limited digital literacy in rural areas, with ethical approval obtained from institutional review boards. To ensure clarity, the questionnaire was translated into Urdu and Pashto, followed by back-translation to verify consistency (Brislin, 1970). Pilot testing with 30 SME professionals confirmed the instrument's reliability (Cronbach's $\alpha > 0.85$ for all scales) and face validity.

Results

Table 1: Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis		Cronbach's alpha (α)
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error	
AIP	401	3.2962	.66585	.372	.122	-.471	.243	0.71
ICBA	401	3.5012	.94439	.008	.122	-.223	.243	0.84
TIAI	401	3.5711	.86959	-.980	.122	.449	.243	0.88
Valid N (listwise)	401							

Artificial Intelligence Practices >AIP; Intentions to Adopt Cloud Based Accounting > ICAB Trust in Artificial Intelligence > TIAI

Descriptive statistics for the study variables (N = 401) indicated moderate levels of Artificial Intelligence Practices (AIP) (M = 3.30, SD = 0.67, α = 0.71), Intentions to Adopt Cloud-Based Accounting (ICBA) (M = 3.50, SD = 0.94, α = 0.84), and Trust in Artificial Intelligence (TIAI) (M = 3.57, SD = 0.87, α = 0.88) on a 5-point Likert scale. Cronbach's alpha coefficients indicated acceptable to good internal consistency across constructs (α > 0.70; Nunnally, 1978). Skewness (AIP = 0.37, SE = 0.12; ICBA = 0.01, SE = 0.12; TIAI = -0.98, SE = 0.12) and kurtosis (AIP = -0.47, SE = 0.24; ICBA = -0.22, SE = 0.24; TIAI = 0.45, SE = 0.24) values fell within acceptable ranges (±2 SE), suggesting approximate normality (Field, 2018). TIAI exhibited slight negative skewness, reflecting a minor left-tailed distribution, while AIP and ICBA displayed near-symmetrical distributions.

Table 2: Correlations

		AIP	ICBA	TIAI
AI	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	401		
ICBA	Pearson Correlation	.225**	1	
	Sig. (2-tailed)	.000		
	N	401	401	
	Pearson Correlation	.225**	.577**	1
	Sig. (2-tailed)	.000	.000	
TIAI	N	401	401	401

******. Correlation is significant at the 0.01 level (2-tailed).

Artificial Intelligence Practices >AIP; Intentions to Adopt Cloud Based Accounting > ICAB Trust in Artificial Intelligence > TIAI

Pearson correlation analysis (N = 401) revealed significant positive relationships between the study variables. Artificial Intelligence Practices (AIP) showed weak to moderate correlations with Intentions to Adopt Cloud-Based Accounting (ICBA) (r = .225, p < .01) and Trust in Artificial Intelligence (TIAI) (r = .225, p < .01). A stronger positive correlation was observed between ICBA and TIAI (r = .577, p < .01), indicating a moderate to strong association. All correlations were statistically significant at the 0.01 level (two-tailed),

with no evidence of multicollinearity (Field, 2018).

Table 3: a) Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2	Sig. F Change
1	.225[a]	.051	.048	.92132	.051	21.283	1	399	.000

a. Predictors: (Constant), AIP

A linear regression model with Artificial Intelligence Practices (AIP) as the predictor of Intentions to Adopt Cloud-Based Accounting (ICBA) yielded a small but statistically significant effect. The model explained 5.1% of the variance in ICBA (R^2 = .051, adjusted R^2 = .048), F(1, 399) = 21.28, p < .001. The standard error of the estimate (SE = 0.92) indicated moderate dispersion around the regression line. While AIP positively predicted ICBA (β = .225, p < .001; see correlations), the low R^2 suggests additional unmeasured variables (e.g., trust in AI, firm size) likely contribute to adoption intentions (Field, 2018).

Table 3: B) Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.449	.233		10.528	.000
	AIP	.319	.069	.225	4.613	.000

a. Dependent Variable: ICBA

Artificial Intelligence Practices >AIP; Intentions to Adopt Cloud Based Accounting > ICAB

The regression analysis revealed that Artificial Intelligence Practices (AIP) significantly predicted Intentions to Adopt Cloud-Based Accounting (ICBA) (B = 0.32, SE = 0.07, β = 0.23), t(399) = 4.61, p < .001. The unstandardized coefficient (B) indicates that for every one-unit increase in AIP, ICBA scores increased by 0.32 units on a 5-point Likert scale. The intercept term was also significant (B = 2.45, SE = 0.23, p < .001), suggesting a baseline ICBA score of 2.45 when AIP is hypothetically zero. The standardized coefficient (β = 0.23) aligns with the small effect size observed in the model (R^2 = 5.1%), reinforcing that AIP contributes modestly to adoption intentions, with other factors likely playing a role (Field, 2018).

Multiple Hierarchical Regression Analysis for ICBA (Intentions to Adopt Cloud-Based Accounting) A Moderation of Trust in AI

Table 4: Moderation Analysis

Component	Coeff (β)	SE	t	p	95% LLCI	95% ULCI	R	R^2	ΔR^2	F	df1	df2	p (Overall/Test)
Model Summary	–	–	–	–	–	–	0.593	0.351	–	71.59	3	397	< .001
Constant	2.7044	0.8044	3.362	0.001	1.123	4.286	–	–	–	–	–	–	–
AIP	0.4751	0.2683	1.771	0.07	1.003	0.052	–	–	–	–	–	–	–

				7									
TIAI	0.1223	0.2083	0.587	0.557	-0.287	0.532	–	–	–	–	–	–	–
Int_1 (AIP×TIAI)	0.1618	0.0686	2.358	0.019*	0.027	0.297	–	–	–	–	–	–	–
Interaction Test	–	–	–	0.019*	–	–	–	–	0.009	5.558	1	397	–

A hierarchical regression analysis examined the moderation effect of Trust in Artificial Intelligence (TIAI) on the relationship between Artificial Intelligence Practices (AIP) and Intentions to Adopt Cloud-Based Accounting (ICBA). The full model explained 35.1% of the variance in ICBA (R^2 = .351, $F(3, 397) = 71.59$, $p < .001$). The interaction term (AIP×TIAI) contributed a statistically significant incremental effect (ΔR^2 = .009, $F(1, 397) = 5.56$, $p = .019$), indicating moderation. While neither AIP ($\beta = .475$, $p = .077$) nor TIAI ($\beta = .122$, $p = .557$) had significant direct effects, their interaction significantly predicted ICBA ($\beta = .162$, $p = .019$, 95% CI [0.027, 0.297]). This suggests that trust in AI amplifies the positive relationship between AI practices and adoption intentions: higher trust strengthens the impact of AIP on ICBA.

Discussion of Findings

The study's findings align with and extend the hypothesized relationships between AI practices, trust in AI, and intentions to adopt cloud-based accounting systems (CBAS) among SMEs in Southern districts Khyber Pakhtunkhwa (KP) Province, Pakistan. First, the results partially support Hypothesis 1 (H1), which posited that AI practices positively influence CBAS adoption intentions. While AI practices demonstrated a statistically significant direct effect, its practical impact was modest, suggesting that functional benefits like automation efficiency or predictive analytics alone are insufficient to drive widespread adoption in this context. This aligns with prior research emphasizing that technical utility must intersect with socio-cultural and psychological factors to overcome adoption barriers in resource-constrained environments (Ahmad et al., 2020; Hussain et al., 2019).

Second, Hypothesis 2 (H2) received robust support: trust in AI significantly moderated the relationship between AI practices and CBAS adoption intentions. The interaction effect highlights that trust acts as a critical enabler, amplifying the positive influence of AI practices on adoption decisions. In KP Province, where skepticism toward automation is entrenched due to fears of data misuse or job displacement (Arslan et al., 2022; Salleh et al., 2017), trust mitigates perceived risks and reinforces confidence in AI's reliability and ethical alignment. This finding underscores the dual role of trust as both a psychological assurance and a socio-technical bridge, reconciling AI's operational advantages with localized ethical and professional concerns (Glikson & Woolley, 2020).

Contextually, the study reveals that SME accountants and owners prioritize trust-building mechanisms—such as algorithmic transparency, vendor credibility, and compliance with local norms—over mere technical efficiency. This reflects the unique dynamics of KP's business ecosystem, where interpersonal relationships and informal networks dominate transactions (Khan et al., 2021). The absence of significant direct

effects for trust alone further emphasizes its role as a moderator rather than a standalone driver, suggesting that trust operates synergistically with functional AI benefits to shape adoption intentions.

Theoretical and Practical Implications

The findings advance the Unified Theory of Acceptance and Use of Technology (UTAUT) by integrating trust as a contextual moderator, addressing calls for localized models in AI adoption research (Dwivedi et al., 2019). Practically, the results advocate for AI implementation strategies that prioritize transparency, ethical governance, and capacity-building initiatives tailored to SMEs' socio-cultural realities. Policymakers and software developers should collaborate to design localized AI frameworks that address data sovereignty concerns and enhance digital literacy, fostering informed trust among accountants and business owners. For SMEs in KP, these insights offer a roadmap to balance innovation with ethical accountability, ensuring AI-driven solutions align with both operational needs and societal values.

Limitations and Future Research Directions

This study has several limitations, including its cross-sectional design, which restricts causal inferences, and its focus on a single region (KP Province), limiting generalizability to other contexts. Future research should explore longitudinal studies to assess how trust in AI and adoption intentions evolve over time, particularly in response to advancements in AI transparency and ethical governance. Additionally, comparative studies across different regions in Pakistan and other developing economies could identify cultural and infrastructural nuances that influence trust dynamics. Future research should explore longitudinal studies to assess how trust in AI and adoption intentions evolve over time, particularly in response to advancements in AI transparency and ethical governance. Additionally, comparative studies across different regions in Pakistan and other developing economies could identify cultural and infrastructural nuances that influence trust dynamics. Further investigation into the role of government policies and industry standards in fostering trust, as well as the impact of AI literacy programs on adoption rates, would provide valuable insights for policymakers and practitioners aiming to bridge the gap between technological innovation and localized adoption challenges.

Conclusion

This study underscores the pivotal role of trust in AI as a catalyst for adopting cloud-based accounting systems (CBAS) among SMEs in Southern districts Khyber Pakhtunkhwa Province, Pakistan. While AI practices alone exhibit limited direct influence on adoption intentions, trust significantly amplifies their impact, acting as a bridge between technological utility and socio-cultural reservations. The findings affirm that accountants and SME owners prioritize ethical alignment, transparency, and reliability in AI systems over mere efficiency gains, particularly in contexts marked by infrastructural and regulatory gaps. By extending the UTAUT framework to incorporate trust as a contextual moderator, this research offers a localized model for AI adoption in developing economies. Practically, it advocates for AI governance strategies that blend technical innovation with ethical safeguards, capacity-building, and culturally sensitive policies to foster informed trust. These insights are critical for advancing equitable digital transformation, ensuring AI-driven solutions align with both operational needs and

societal values in resource-constrained settings.

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