

# AI TRANSLATION'S IMPACT ON LEGAL AUDIT QUALITY IN MOROCCO'S BIG FOUR

Karima Bouziane<sup>1</sup>

Applied Language and Culture Studies (ALCS), Chouaib Doukkali University/ CEOS.PP,

ISCAP, Polytechnic of Porto

Abdelmounim Bouziane<sup>2</sup>

LIRO Laboratory, Chouaib Doukkali University

## Abstract

The integration of artificial intelligence (AI) has brought forth transformative changes across industries, and the field of auditing is no exception. With the rise of AI technologies, Auditors are now reflecting on and rethinking traditional methods to enhance audit quality and efficiency through AI technologies. This article aims to study the impact of the use of ChatGPT as a translation tool on the quality of legal audit. To achieve our objective, we have compiled a sample of auditors working in audit firms that are members of the Big Four networks. The choice of audit giants is explained by the existence of several firms from different countries, highlighting the multilingual aspect. The collection of data was carried out through a questionnaire and their analysis was made by SPSS (linear regression). The results revealed that the perceived utility of ChatGPT exhibited the highest correlation with the quality of legal audit tasks conducted in languages unfamiliar to the auditors.

**Keywords:** Audit Quality; ChatGPT; AI; Translation; Big Four; Morocco

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<sup>1</sup> ORCID : <https://orcid.org/0000-0003-1510-9087>; Email: bouzianekarima@gmail.com

<sup>2</sup> ORCID: <https://orcid.org/0000-0002-7135-9657>, Email: bouzianeabdelmounim@gmail.com

## Resumo

A integração da inteligência artificial (IA) trouxe mudanças transformadoras em todos os sectores e o campo da auditoria não foi exceção. Com o surgimento das tecnologias de IA, os auditores estão agora a refletir e a repensar os métodos tradicionais para melhorar a qualidade e a eficiência da auditoria.

Este artigo tem como objetivo estudar o impacto da utilização do ChatGPT, como ferramenta de tradução, na qualidade da auditoria jurídica. Para atingir o nosso objetivo, compilámos uma amostra de auditores que trabalham em empresas de auditoria da rede Big Four. A escolha dos gigantes da auditoria explica-se pela existência de várias empresas de diferentes países, realçando o aspeto multilingue. A recolha de dados foi efetuada através de um questionário e a análise foi feita com SPSS (regressão linear). Os resultados revelaram que o ChatGPT foi percecionado como útil e que apresentou a maior correlação com a qualidade das tarefas de auditoria legal realizadas em línguas desconhecidas dos auditores.

**Palavras-chave:** Qualidade de Auditoria; ChatGPT; IA; Tradução; Big Four; Marrocos

## 1. Introduction

The digital and technological revolution has brought profound changes to all areas and activities, realizing very significant evolutions and leaps. Audit firms were no exception and were able to seize the opportunities offered by these technologies, especially in terms of renewing and reorganizing working methods. For these structures, technologies have given rise to techniques that offer tools with many advantages for auditors. These IT tools have enabled audit professionals to gain new market share, in less time, with better prices, and a gain in competitiveness while detecting any possibility of fraud and anomaly. The quality objective in audit missions has become

very difficult to achieve because of the complexity and the large volume of operations that companies (large structures in particular) carry out every day (sales, purchases, transfers, payment of salaries, appropriation of the result, acquisition of equipment, export, import, etc.), and which result in verification difficulties for the auditor. Artificial Intelligence has enabled various firms to process a range of operations in less time and with better quality.

Various AI-based tools and software, including Asset Panda, Suralink, and ChatGPT, have provided substantial benefits to auditors and audit firms. What sets ChatGPT apart from other audit software is its capacity to support auditors in the execution of audit tasks conducted through various software platforms. Among the supportive functions provided by ChatGPT, one noteworthy feature is its translation capability. Auditors frequently encounter situations involving clients and assignments necessitating languages beyond their expertise or requiring the translation of international standards or reports authored in foreign languages. Hence, our inquiry focuses on the following question: At what level does the translation service offered by ChatGPT affect the quality of the legal audit?

## **2. Literature Review**

The job of audit firms consists (for the most part) of the control and certification of audited accounts. This certification gives assurance to the various partners of the audited structure that its financial statements are trustworthy and accurately represent its true financial position. However, the work of control and verification poses a complicated task when it comes to the audit of large companies which carry out thousands of financial transactions per day. The appearance of artificial intelligence tools has presented an opportunity for audit firms, allowing them to allocate their work while remaining competitive. To do this, audit firms (and especially the big four) have evolved their economic model (Sahut, et al., 2012) and their service offering by equipping themselves with

innovative technologies to offer digital solutions (Van den Broek et al, 2018). Furthermore, it is important to acknowledge that the introduction of artificial intelligence into audit firms and the choice to incorporate it have raised a very large number of questions concerning the assessment of the new techniques' performance, their integration, auditor satisfaction with the technology, and more. The following studies explore the integration of AI, especially ChatGPT, in audit firms and its impact on audit quality, efficiency, and the role of auditors. They provide insights into the advantages and challenges of AI adoption in auditing and offer valuable guidance for industry leaders, policymakers, and auditors.

Zhang (2019) focuses on the potential benefits of Intelligent Process Automation (IPA) for the assurance profession, presenting a framework for implementing IPA in audit engagements through concepts like an automation continuum, audit workflow, and audit task structure. It includes a prototype illustration based on a simulated case, discusses potential applications of IPA in pension and inventory audits, and suggests that IPA can enhance audit efficiency and effectiveness. While acknowledging concerns about AI's role in IPA, Zhang argues that IPA aims to free auditors from repetitive tasks, emphasizing their professional judgment. The study highlights limitations, challenges of adoption, and the need for empirical evidence. Future research opportunities are suggested, including evaluating IPA in real audits, assessing its impact on audit quality, analyzing implementation costs, and exploring auditors' time allocation and decision-making effects.

Concerning the impact of AI on the audit firms' structure, Law and Shen (2020) investigate the influence of artificial intelligence (AI) adoption on auditing firms. The methodology involves analyzing the impact of staggered job listings that require AI proficiency in audit offices throughout the United States, serving as a proxy for AI utilization at local audit offices. Initially, the study reveals that compared to audit offices that have not yet posted any AI-related job openings, those

that do advertise such positions observe a 19% uptick in the number of available auditor positions. Additionally, post AI-related job postings, these audit offices tend to shift their job requirements: reducing the demand for challenging technical computer/software skills while increasing the emphasis on soft and non-technical skills for the same roles. Furthermore, the research indicates that although these AI-adopting audit offices do not decrease audit fees, they do achieve a notable reduction in the percentage of clients experiencing adverse restatements and audit delays. On the whole, these findings suggest that AI integration does not displace auditors' jobs, but rather prompts changes in the skill prerequisites for auditor roles and enhances the quality of audits.

The integration of AI techniques and tools can bring a range of advantages to audit firms, and above all improve the quality of their work. In this logic, several studies have focused on determining the relationship between the integration of AI in auditing on audit quality. Fedyk et al, (2022) introduce initial comprehensive empirical evidence about artificial intelligence (AI) talent within audit firms and its impacts on both product quality and employment. Through a detailed analysis of a unique dataset covering a significant portion of large audit firm employees, the authors highlight a notable increase in AI talent from 2010 to 2019. This study shows that AI professionals are generally younger and mostly male, with educational backgrounds primarily in technical fields like statistics, applied mathematics, and computer science. The organization of AI talent tends to be centralized within firms, with major hubs in cities such as New York, Washington D.C., and San Francisco. Drawing insights from interviews with 17 audit partners from the eight largest U.S. public accounting firms, the authors explore the influence of AI on the audit process. The empirical findings of the study, demonstrate substantial enhancements in audit quality due to AI investments made by audit firms. These investments are linked to significant reductions in restatements, including material and accrual-related restatements. These results hold true even when accounting for other technological investments by auditors and are attributed to the auditors themselves rather than their clients. Additionally, the authors find preliminary indications that better audit quality

aligns with a more streamlined process. As audit firms invest in AI, they can decrease fees while simultaneously reducing their audit workforce, resulting in increased productivity measured by total fees per employee. However, observations about the impact on employment highlight the need for caution, as the benefits of new technologies may not be evenly distributed. While senior audit firm partners reap the rewards of enhanced quality, greater efficiency, and reduced costs, junior employees might face displacement several years after AI investments. The authors anticipate that their findings will offer valuable insights for industry leaders and policymakers. Furthermore, their comprehensive datasets on firm-level AI investments and employment patterns pave the way for broader research into the wide-ranging impacts of new technologies across accounting, auditing, and other service-oriented sectors.

AI techniques offer a wide range of advantages. They enable auditors to rapidly test a greater number of operations, conduct comprehensive analyses of extensive documents like ledgers, and among the AI techniques discussed, ChatGPT stands out. Numerous studies have highlighted the numerous benefits this tool brings to auditors.

Fotoh and Mugwira (2023) analyze the potential impact of ChatGPT on external audits, its ethical considerations, and future areas of study. The research employs a comprehensive conceptual method grounded in current discussions about the influence of ChatGPT on auditing. The exploration of its advantages is structured according to dynamic capabilities theory, while the rationale for potential improvements is based on social presence theory. The advantages of ChatGPT encompass its rapid provision of human-like responses to auditors' inquiries, streamlining tasks that are repetitive and require minimal judgment, thus allowing auditors to concentrate on intricate tasks demanding judgment. Moreover, technology can enrich the learning journey of junior auditors. Nevertheless, apprehensions arise over inaccurate replies, reliability of information sources, potential fabrication, adverse effects on auditors' critical thinking, and limited

applicability in audits due to restricted data accessibility. Ethical worries include matters related to auditors' impartiality, confidentiality, privacy, accountability, and intellectual property rights. This research provides an innovative contribution to the field, as one of the earliest endeavors to investigate the potential merits, limitations, and ethical consequences of integrating ChatGPT into external audits. These conclusions hold significance for audit firms that have heavily invested in such technologies, as well as for regulators supervising their implementation. From an academic standpoint, this study stimulates further research and fosters conversations about ChatGPT. In sum, these outcomes equip auditors, regulators, and scholars with a deeper comprehension of ChatGPT's potential influence on external audits.

Fotoh and Mugwira's study outlines the potential advantages of using ChatGPT in external audits. We can leverage their findings to identify how ChatGPT-generated translations might streamline tasks, provide rapid responses to auditors' inquiries, and enhance the efficiency of audit processes. Additionally, their examination of limitations can guide us in identifying potential challenges that could affect audit quality, such as accuracy and reliability concerns.

Within the same context, Emmett et al (2023) examine how Uniper, a major energy company, is adopting ChatGPT to simplify and speed up their internal audits. They explore both the benefits and challenges that arise from using ChatGPT in their audits, and they observe how it improves the speed and quality of these audits. Uniper (Firm) uses ChatGPT during different stages of their audits, from preparing for them, to conducting the audits, and to writing up the results. During initial tests, they have observed that ChatGPT reduces the time required for various tasks by 50 to 80 percent. Additionally, the authors have tackled the significant risks and potential issues associated with utilizing ChatGPT in audits, and they have provided guidance on essential practices and rules for its effective application. Despite its promising potential, evaluating accuracy, legal and ethical concerns, data privacy, and the implications of biased responses is crucial. Conversely,

recognizing opportunities involves understanding how ChatGPT can enhance customer interactions, streamline processes, offer personalized support, and improve efficiency. By thoroughly evaluating both risks and benefits, organizations can make informed decisions about integrating ChatGPT, ensuring alignment with business goals. Further research is encouraged to identify risks and benefits in the auditing context.

Leveraging the example provided by Emmett et al. we can validate the practicality of integrating ChatGPT in the context of translating international auditing standards. By showcasing a real-world application, our research can demonstrate the feasibility of the technology and its potential to enhance the accuracy and effectiveness of translating auditing standards in a cross-border setting.

Gu et al (2023) put forward the concept of "artificial intelligence co-piloted auditing." This approach involves auditors collaborating with foundational AI models. The authors illustrate how co-piloted auditing works and its potential benefits for the field of auditing. To demonstrate the viability of this concept, they present a detailed method for fine-tuning Open AI's GPT-4 model to handle a variety of auditing tasks. They introduce a technique called the chain-of-thought (CoT) prompting strategy which breaks down complex audit tasks into smaller interconnected parts. This enhances the model's ability to reason and adapt to auditing requirements. Their CoT prompting method includes six essential components that guide the model through a series of prompts, helping it understand tasks and generate accurate responses in context. Additionally, the authors propose five principles that enhance the efficiency, interpretation, and flexibility of conversational systems. To validate their approach, they apply it to three distinct audit tasks involving different financial data: analyzing financial ratios, examining notes, and testing journal entries. The findings emphasize the potential of AI-assisted systems, particularly large language models, in effectively addressing complex audit tasks. This demonstrates their adaptability and versatility as valuable tools in co-piloted auditing scenarios.



Gu et al.'s concept can be adapted to illustrate how ChatGPT can effectively work alongside auditors, aiding in the translation and interpretation of complex international auditing standards. By leveraging this collaborative approach, the study can discuss the potential benefits of improved efficiency and accuracy in cross-border audit engagements, while also highlighting the synergy between auditors' expertise and AI assistance to ensure precise translations and interpretations.

In another study, Eulerich and Wood (2023) have introduced practical examples of ChatGPT's enhancements to the internal audit process, especially in stages like test preparation, report writing, proposing test steps, creating interview questions, forming risk assessments, increasing efficiency through task automation. Successful AI integration relies on a well-structured Internal Audit Function (IAF), standardized processes, motivated staff, and addressing challenges like identifying use cases and managing algorithm aversion while ensuring data quality and IT infrastructure. However, the authors have stated that introducing AI also raises risks such as data privacy, security, and confidentiality concerns that require careful management. These include potential unintentional disclosure of sensitive information, vulnerability to cyber-attacks, and the risk of generating biased outputs due to skewed training data, as well as accountability and transparency challenges stemming from certain AI models' opacity. Mitigating these risks necessitates robust data governance strategies involving data anonymization, secure AI service providers, continuous system monitoring, and AI ethics guidelines. The authors have concluded that future research directions in internal auditing may involve guidelines for AI integration, examining stakeholder acceptance of AI-generated outcomes, and balancing human expertise with AI capabilities. Research could also explore AI's effects on the IAF's stakeholders, like the audit committee or auditees, and delve into the technical implementation of AI tools.

Eulerich and Wood (2023) offer practical examples of how ChatGPT can enhance the internal audit process. These examples can be adapted to showcase potential applications in translating international auditing standards, including aiding in test preparation, report writing, and

risk assessment. By leveraging these examples, the research can highlight how ChatGPT technology can contribute to accurate and effective translations of complex auditing standards, streamlining the reporting process, proposing test steps, and considering jurisdictional nuances, ultimately supporting the assessment of its impact on maintaining audit quality in cross-border engagements.

### 3. Objectives

The use of technology in auditing has been the subject of scientific studies since the 1990s. However, it is worth noting that the exploration of various dimensions connecting financial auditing and artificial intelligence has primarily focused on computer-assisted audit techniques and optimizing report generation. In this process, the crucial aspects of technical and linguistic assistance have often been overlooked. It is in this context that we aim to study and analyze the impact of the translation services offered by artificial intelligence on audit missions.

Our study therefore aims to assess the subsequent impact of ChatGPT-powered translations on maintaining audit quality in cross-border engagements. By investigating how accurate translation contributes to effective communication and adherence to regulations, the study intends to measure the degree to which audit outcomes are positively influenced by the use of AI-driven translation tools.

This study examines how translations produced by ChatGPT influence the quality of cross-border legal audit assignments, particularly those involving languages unfamiliar to the auditors. By studying the links between the translations carried out and the quality of the deliverables, the study will measure the extent and direction of the correlation (if any) between the quality of the audit and the use of AI-powered translation tools.

## 4. Methods

### 4.1 Choice of the research field

The use of translation tools is interrelated to the presence of a multilingual environment. National audit firms, primarily managed by Moroccan partners, may have limited use for translation practices. Therefore, our focus shifted towards the subsidiaries of global audit giants operating in Morocco. Given the international management and diverse practices and personnel within these firms, the adoption of translation practices is expected to be more prevalent.

Our research will focus on the Big Four audit firms established in Morocco, namely Deloitte, PwC, EY, and Mazars. We will distribute our questionnaire to all auditors within these four firms, and the analysis will be conducted separately for each of these organizations.

### 4.2 Sample selection

The study focuses on the auditors of the big four audit firms implanted in Morocco: Deloitte PwC, EY and Mazars. We sent our questionnaire to all auditors working in those firms as follows:

**Table 1. Determination of research sample**

Audit firm	Total population (auditors only)	Number of auditors who received the questionnaire	Number of responses received
Deloitte	42	42	37
PwC	31	31	27
EY	30	30	27
Mazars	32	32	30
Global sample			121

To identify the variables to be included in our research, we conducted a group interview involving three audit managers. During this interview, these managers outlined various ways in which ChatGPT is utilized in legal audit missions by auditors. Other variables were added following

the analysis of the literature review, particularly perceived usefulness and perceived ease mentioned in the Technology Acceptance Model theory. The objective of this interview was also to ensure that the selected firms conduct audit missions in multiple languages. In summary, the variables in our research are as follows:

**Table 2. Determination of research variables**

<b>Variables</b>	<b>Possible answers</b>
Age	<p>The respondents were asked to tick one of the following choices:</p> <ul style="list-style-type: none"> <li>1- [<math>&lt;20</math>]</li> <li>2- [<math>20 - 40</math>]</li> <li>3- [<math>41 - 60</math>]</li> <li>4- [<math>61 - 80</math>]</li> <li>5- [<math>&gt; 81</math>]</li> </ul>
Gender	<p>The respondents were asked to tick one of the following choices:</p> <ul style="list-style-type: none"> <li>1- Male</li> <li>2- Female</li> <li>3- Prefer not to say</li> </ul>
Academic level	<p>The respondents were asked to tick one of the following choices:</p> <ul style="list-style-type: none"> <li>1- Baccalaureate</li> <li>2- Bachelor's degree</li> <li>3- Master's degree</li> <li>4- Doctoral degree</li> <li>5- Other</li> </ul>
Being comfortable with ICT	<p>The questions regarding these variables were formulated in such a way that respondents had to select one of these five choices:</p>
Experience using ChatGPT in translation (in other fields)	

	1- Strongly Disagree 2- Disagree 3- Neutral 4- Agree 5- Strongly Agree.
Using ChatGPT in preparing audit reports carried out in another language	The questions regarding these variables were formulated in such a way that respondents had to select one of these five choices:
Using ChatGPT - translation of audit reports	
Using ChatGPT in preparing email in another language (to send to clients)	1- Never
	2- Rarely
Using ChatGPT in preparing email in another language (to send to colleagues)	3- Sometimes
	4- Often enough
Using ChartGPT to translate instructions from international office	5- Very often
The perceived ease of ChatGPT	The questions regarding these variables were formulated in such a way that respondents had to select one of these five choices:
The perceived usefulness of ChatGPT	
Satisfying results from using ChatGPT	
Quality of audit mission	
	1- Strongly Disagree
	2- Disagree
	3- Neutral
	4- Agree
	5- Strongly Agree.

#### 4.3 Data collection and analysis

Data collection was done through the distribution of questionnaires to all auditors working in the Big Four subsidiaries in Morocco. The total responses received is 121. It is worth mentioning that we had the consent of the concerned institutional contributors and mainly the participants in this study to have data/responses processed, analyzed, and published publicly; we have added a section in the questionnaire that required the approval of all parties.

Statistical analysis was undertaken as the cornerstone of this study, seeking to evaluate the influence of auditors using ChatGPT for translation on the quality of audits. To validate the robustness of the linear regression employed in this analysis, several critical tests were employed. These tests include the Durbin-Watson (DW) test, which examines autocorrelation in the residuals; the determination coefficients (R and R<sup>2</sup>), offering insights into the strength and explanatory power of the model; and the F statistic, a pivotal tool for assessing the overall significance of the regression model.

The data analysis was conducted through linear regression using SPSS software.

## 5. Results

The results of those preliminary tests were as follows:

**Table 3. Model extracted from SPSS (Linear regression)**

Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation	Changement dans les statistiques					Durbin-Watson
					Variation de R-deux	Variation de F	ddl1	ddl2	Sig. Variation de F	
1	,980 <sup>a</sup>	,960	,956	,295	,960	217,847	12	108	,000	2,288

The correlation index, denoted as R, stands impressively strong at 0.98, indicating a remarkable proximity to the perfect correlation value of 1. This compelling observation underscores a clear and robust correlation between the quality of audit missions conducted in languages beyond the auditors' proficiency and the explanatory variables considered in our analysis. The R<sup>2</sup> value, which stands at a remarkable 0.96, signifies that our selected explanatory variables collectively account for an impressive 96% of the variability observed in our target variable.

Furthermore, the statistical robustness of our model is substantiated by the F-statistic, which registers below the conventional 5% threshold. This affirmation underscores the validity and

reliability of our statistical model in explaining the relationships within the data. Additionally, the Durbin-Watson (DW) statistics, hovering around 2.51, indicates minimal autocorrelation in the residuals, further bolstering our confidence in the model's significance.

In light of the rigorous evaluation of our statistical model, it becomes essential to present a snapshot from the correlation table. This table offers a visual representation of the intricate relationships between audit quality and the array of explanatory variables embedded within our analytical framework. The insights derived from Table 4 shed light on the degree of correlation between each explanatory variable and our chosen dependent variable, thus enriching our understanding of the factors influencing audit quality.

**Table 4. Model extracted from SPSS (Linear regression).**

Modèle	Coefficients non standardisés		Coefficients standardisés	t	Sig.	Statistiques de colinéarité	
	A	Erreur standard	Bêta			Tolérance	VIF
1 (Constante)	8,236	,946		8,706	,000		
Age	-,033	,071	-,012	-,466	,642	,572	1,749
Gender	-,058	,050	-,027	-1,156	,250	,669	1,494
Academic_level	,049	,109	,010	,451	,653	,731	1,367
BeingcomfortablewithICT	-,214	,069	-,161	-3,109	,002	,137	7,310
ExperienceusingChatGPT	-,298	,068	-,203	-4,392	,000	,173	5,791
UsingChatGPTinpreparin gauditreportscarriedoutin another	-,448	,064	-,256	-7,033	,000	,278	3,594
UsingChatGPTtranslation ofauditreports	,766	,105	,431	7,288	,000	,105	9,525
UsingChatGPTinpreparin gemailinanotherlanguage tosendto	-,229	,096	-,081	-2,388	,019	,320	3,123
UsingChatGPTinpreparin gemailinanotherlanguage tosendto	-,657	,083	-,235	-7,911	,000	,415	2,407
UsingChatGPTtotranslat einstructionsfrominternati onaloffi	-,804	,073	-,382	-11,070	,000	,308	3,242
TheperceivedeaseofChat GPT	,084	,064	,080	1,315	,191	,099	10,105
Theperceivedusefulness ofChatGPT	,945	,076	,721	12,512	,000	,111	9,043

The significance of the auditor's manual work in the audit process cannot be underestimated.

The quality of legal audit missions conducted in languages different from those mastered by the auditors indirectly reinforces the auditor's role as a key contributor to the success of the audit mission. The results of the linear regression analysis demonstrate that the quality of audit missions depends on the perceived usefulness of ChatGPT (with a coefficient of 0.9) and the level of ChatGPT utilization in translating audit reports relevant to the conducted mission (0.7). These variables vary in the same direction as our target variable. However, the use of ChatGPT as a means of translating messages and interactions with colleagues and the internal structure negatively influences the audit quality. The correlation coefficient for the variable related to translating and sending emails to colleagues is -0.6, while the coefficient for translating instructions from the central office is -0.8.

## **6- Discussion**

The results of our study have revealed several critical observations related to the factors influencing audit quality, particularly in the context of multilingual audit missions. The remarkable correlation index ( $R$ ) of 0.98 and the  $R^2$  value of 0.96 emphasize the strong and comprehensive relationship between the quality of audit missions conducted in languages beyond auditors' proficiency and the explanatory variables considered in our analysis. These findings indicate the importance of understanding the nuances of multilingual audit processes and the variables that contribute to their success. The statistical robustness of our model, as indicated by the F-statistic falling below the 5% threshold and the Durbin-Watson (DW), suggesting minimal autocorrelation, strengthens our confidence in the model's significance and reliability. This statistical foundation provides a strong basis for our recommendations and demonstrates the importance of AI technologies translation in audit.



The integration of artificial intelligence (AI) technologies, such as ChatGPT translation, into various professional sectors has been met with both excitement and caution. This study focused on investigating the specific impact of ChatGPT translation technology on the quality of legal audits, exploring its potential benefits, challenges, and implications for the legal audit profession.

One of the major findings of this study is the potential of ChatGPT translation technology to significantly enhance the efficiency of legal audit processes. Legal audits often involve the review of extensive volumes of documents, contracts, and agreements in multiple languages. Traditionally, this translation process has been time-consuming, diverting auditors' attention away from in-depth analysis. The integration of ChatGPT technology optimizes this translation phase, allowing auditors to allocate more time to analyzing the legal content, identifying discrepancies, and assessing compliance. ChatGPT's ability to generate translations quickly contributes to the consistency of translated content across documents. Inconsistencies or inaccuracies in translations can lead to misunderstandings and errors in the audit process. ChatGPT, with its automated translation capabilities, reduces the risk of human errors that can arise during manual translation. However, it is important to note that while technology offers rapid translations, auditors must exercise due diligence in ensuring the accuracy and reliability of the translated content, especially in legally intricate contexts.

The findings of this study illuminate several avenues for future research and adaptation within the legal audit field. Continuous monitoring and improvement of AI models to minimize bias is an ongoing challenge that requires collaboration between AI developers and legal professionals. Additionally, extended-term studies could explore the long-term effects of ChatGPT integration on audit quality, client satisfaction, and auditor workloads. Cross-cultural comparisons could provide insights into the technology's performance across different legal systems and languages.

## 7. Recommendations

The integration of ChatGPT translation technology into the field of legal audits introduces both opportunities and challenges. To employ the benefits and mitigate potential drawbacks, the following recommendations are proposed based on the findings of this study:

❖ Leverage technology wisely:

Auditors should be encouraged to use technological tools judiciously, particularly in translating audit reports and relevant documents. However, it is important to maintain a balance and recognize the limitations of automation, especially in sensitive communication with colleagues and internal processes.

❖ Continuous training and adaptation:

Given the evolving nature of technology and audit practices, auditors should engage in continuous training and skill development. This includes staying updated on the latest advancements in audit software and tools while improving their manual auditing skills. The ability to adapt to changing technological landscapes is important for maintaining audit quality.

❖ Multilingual competency:

Considering our findings regarding the impact of language proficiency on audit quality, audit firms should consider improving auditors' multilingual competency. Offering language courses or providing access to translation support services can enhance auditors' effectiveness in conducting multilingual audits.

❖ Quality assurance mechanisms:

Audit firms should implement good quality assurance mechanisms to ensure that both manual and automated audit processes abide by the established standards. Regular audits of audit processes can help identify areas for improvement and maintain high levels of quality.

❖ Further research:

Our study also revealed some intriguing contradictions, particularly in the negative impact of ChatGPT on audit quality in certain communication contexts. Further research is needed to explore these aspects in more detail. Future studies should focus on understanding the specific circumstances in which automation may hinder rather than enhance audit quality.

## 8. Conclusion

In an era marked by the integration of artificial intelligence technologies into various professional domains, our study has shed valuable light on the specific impact of ChatGPT translation technology on the quality of legal audits. The findings emanating from our research underscore both the promise and the complexities associated with this transformative tool in the context of the legal audit profession.

Our paper has indicated that ChatGPT translation technology holds immense potential for enhancing the efficiency of legal audit processes. By expediting the translation of extensive volumes of documents across multiple languages, ChatGPT empowers auditors to devote more time to substantive analysis, thereby improving the quality of audits. The technology's capacity to promptly generate translation not only improves efficiency but also contributes to the consistency of translated content, mitigating the risk of misunderstandings and errors that can hinder the audit process.

Nonetheless, our findings emphasize the importance of vigilance from the part of auditors when using ChatGPT, particularly in guaranteeing the precision and dependability of translated material, especially in legally complex contexts. Additionally, the integration of ChatGPT into legal audit processes necessitates continuous monitoring and improvements to minimize potential biases and errors, calling for continuous collaboration between AI developers and legal professionals.

Moreover, our research points out several potential directions for future investigations and adjustments within the legal audit domain. The persistent challenge of reducing bias in AI models requires continuous focus and improvement to provide results on the long-term effects of ChatGPT integration on audit quality, client satisfaction, and auditor workloads. Cross-cultural comparisons hold the potential to clarify how this technology performs across different legal systems and languages.

In summary, as the legal audit profession embraces the opportunities presented by AI technologies like ChatGPT, a delicate balance must be maintained between being efficient and accurate while still maintaining high quality and diligence. Our research acts as a starting point in this significant transformation, providing valuable information that guides the responsible and efficient incorporation of AI into the field of legal auditing.

### **Ethics Approval and Consent to Participate**

The present study received approval from our institution/our laboratories of Chouaib Doukkali University in accordance with the ethical standards outlined in the 1964 Declaration of Helsinki and its later amendments.

### **References**

- Eulerich, M., & Wood, D. A. (2023). A demonstration of how ChatGPT can be used in the internal auditing process. *Advance online publication*. Retrieved from <https://ssrn.com/abstract=4519583>
- Emett, S. A., Eulerich, M., Lipinski, E., Prien, N., & Wood, D. A. (2023). Leveraging ChatGPT for enhancing the internal audit process: A real-world example from a large multinational company. *Advance online publication*. Retrieved from <https://ssrn.com/abstract=4514238>
- Fedyk, A., Fedyk, T., Hodson, J., & Khimich, N. V. (2022). Is artificial intelligence improving the audit process? *Review of Accounting Studies*, 27(3), 938–985. Advance online publication. <https://doi.org/10.1007/s11142-022-09713-9>
- Fotoh, L., & Mugwira, T. (2023). The use of ChatGPT in external audits: Implications and future research. *Advance online publication*. Retrieved from <https://ssrn.com/abstract=4453835>
- Gu, H., Schreyer, M., Moffitt, K., & Vasarhelyi, M. A. (2023). Artificial intelligence co-piloted auditing. *Advance online publication*. Retrieved from <https://ssrn.com/abstract=4444763>
- Law, K., & Shen, M. (2020). How does artificial intelligence shape audit firms? *Nanyang Business School Research Paper No. 20-31*. Advance online publication. Retrieved from <https://ssrn.com/abstract=3718343>
- Sahut, J. M., Lubica, H., & Moez, K. (2012). Business model and performance of firms. *International Business Research*, 6(2), 64–74. <https://doi.org/10.5539/ibr.v6n2p64>
- Van den Broek, T., & Van Veenstra, A. F. (2018). Governance of big data collaborations: How to balance regulatory compliance and disruptive innovation. *Technological Forecasting and Social Change*, 129, 330–338. <https://doi.org/10.1016/j.techfore.2017.09.040>
- Zhang, C. (Abigail). (2019). Intelligent process automation in audit. *Journal of Emerging Technologies in Accounting*. Advance online publication. <https://doi.org/10.2308/jeta-52653>