

**LEGAL TECHNOLOGY AND PRODUCTIVITY OF LAW FIRMS IN KAMPALA
UGANDA**

BY

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF MANAGEMENT SCIENCE IN
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DECLARATION

I **Rebecca Nakiranda** declare that the research report is my original work and has never been submitted to any University/Institution of higher learning for any award.

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APPROVAL

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DEDICATION

To my beloved husband, Ndawula Henry, whose unwavering patience, encouragement, and tireless support were the foundation of this academic journey. His belief in me made all the difference.

To my lovely children, Clara Nassuuna, Chloe Mukisa Nakabiri, and Kevin Tendo Mutebi, whose continuous prayers and joyful spirits were my greatest motivation and daily reminder of why this pursuit was worthwhile.

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LIST OF ACRONYMS/ABBREVIATIONS

AI	Artificial Intelligence
CVI	Content Validity Index
ECCMIS	Electronic Court Case Management Information System
ICT	Information and Communication Technologies
KII	Key Informant Interviews
LLMs	Large Language Models
LPMS	Legal Practice Management Software
NITA-U	National Information Technology Authority-Uganda
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
SPSS	Statistical Package for Social Sciences
TAM	Technology Acceptance Model”
TRA	Theory of Reasoned Action
UCC	Uganda Communications Commission

ABSTRACT

This study investigated the effect of legal technology on productivity of law firms in Kampala Uganda. Specifically, the study was guided by study objectives which included examining the effect of automation on productivity in law firms in Kampala Uganda, the effect of legal practice management software on productivity in law firms in Kampala Uganda and the effect of artificial intelligence on productivity in law firms in Kampala Uganda. The study considered a cross sectional survey utilizing both quantitative and qualitative approaches. The study targeted 67 participants but 53 managed to respond back registering 79.1% response rate. The findings revealed that automation demonstrated had a strong and significant positive relationship with the productivity of law firms ($r = .574^{**}$, $P < 0.01$). Then from the regression, it was revealed that automation significantly predicted the productivity of law firms by 31.3%. Additionally, it was revealed that legal practice management software showed a moderate and significant positive relationship with the productivity of law firms ($r = .411^{**}$, $P < 0.01$). It was revealed that legal practice management software significantly predicted the productivity of law firms, by 14.9%. It was also revealed that artificial intelligence showed a strong and significant positive relationship with the productivity of law firms ($r = .606^{**}$, $P < 0.01$). It was also revealed that artificial intelligence significantly predicted the productivity of law firms by 35.2%. The study concluded that artificial intelligence was the most significant predictor of productivity of law firms. The study recommends that law firms should incorporate AI-powered tools to analyze large volumes of legal data, identify trends, and monitor key performance indicators in real time. Firms are encouraged to adopt robust legal practice management software to optimize case management, internal communications, and workflow efficiency. Lastly, Law firms should invest in and integrate advanced automation tools to streamline document review, legal research, and drafting processes.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Legal technology adoption has increasingly become a critical area of focus over the past decade due to its potential to disrupt, transform, and enhance traditional legal service delivery (Hodgkinson et al., 2023). However, the legal services sector is often characterized by resistance to change, conservatism, and risk-averse attitudes, which contribute to a slow adoption of technological innovations and a continued reliance on traditional practices (Brooks, Gherhes, & Vorley, 2020). Despite these challenges, understanding how legal technology influences productivity within law firms is essential for improving operational efficiency and competitiveness (Mukiibi & Magunda, 2019; Obisesan et al., 2024). Therefore, this study examined the effect of “legal technology” on “productivity” of law firms in Kampala, “Uganda. In this study, Legal technology is the independent variable, while productivity is the dependent variable. This chapter presents the background of the study, problem statement, objectives of the study, research questions, hypothesis, and conceptual framework, justification of the study, significance of the study, scope of the study and operationalized definitions of key terms”.

1.2 Background to the study

The background to the study consisted of the historical background, theoretical background, Conceptual background and contextual background.

1.2.1 Historical background

The productivity of law firms has long been a central concern in the legal profession, as it directly influences a firm’s ability to deliver timely, efficient, and client-centered legal services (Caserta, 2020). In legal practice, productivity is often defined by the extent to which a firm can optimize billable hours, reduce turnaround times, enhance internal collaboration, and sustain client satisfaction all of which contribute to a firm’s overall performance and competitiveness (Peel, 2021). However, for decades, firms have faced persistent productivity challenges due to labor-intensive processes, document-heavy caseloads, and a reliance on manual record-keeping systems that limited efficiency and responsiveness.

Globally, this productivity dilemma prompted a search for strategic solutions capable of enhancing operational effectiveness within law firms. One such intervention has been the integration of legal technology, which emerged prominently around 2010 as a response to growing demands for efficiency and scalability in legal operations. The introduction of AI-powered e-discovery platforms such as *Relativity*, along with predictive coding and advanced data analytics, offered solutions to manage large volumes of litigation data with greater speed and accuracy (Engstrom & Gelbach, 2021). Additionally, cloud-based practice management systems began to gain popularity, facilitating easier case tracking and document sharing, thereby improving internal workflows and service delivery (Hoffmann-Reim, 2020; Webb, 2020; Whale, 2022).

These innovations significantly improved firm-level productivity by streamlining legal processes, minimizing time spent on routine tasks, and enhancing the overall quality of legal services (Akinngbe, 2024). The use of artificial intelligence, cloud computing, and automation while not a universal remedy has proven to be a transformative tool in addressing long-standing efficiency gaps within legal firms (Suarez, 2020). In this way, legal technology became a targeted intervention aimed at resolving the productivity barriers faced by law firms worldwide.

In Africa, law firms have similarly grappled with inefficiencies rooted in traditional practices and limited digital infrastructure. As a response, legal technology adoption has gradually gained momentum, driven by increasing internet access, widespread use of mobile devices, and improving regulatory environments (Kagaba, 2025). Although Africa accounts for only 3% of the global legal technology market, digital innovations are beginning to reshape judicial processes and enhance productivity by reducing delays, simplifying access to legal resources, and improving client interaction (Lawyers Hub, 2022). Nonetheless, challenges such as inadequate awareness, infrastructural limitations, and concerns about data security continue to restrict broader adoption.

Uganda's legal system reflects these broader regional dynamics. Historically, legal productivity was constrained by rudimentary systems rooted in oral customary laws and later by manual processes under the British adversarial legal framework (Oloka, 2020). The 1990s marked a shift

as basic Information and Communication Technologies (ICTs) were introduced into some law firms and government institutions, mainly for word processing and document storage (International Telecommunication Union, 2001). While modest, these early efforts laid the groundwork for digitization in the legal sector.

In the 2000s, government-led initiatives sought to improve productivity through digitization such as electronic filing systems and online legal databases signaling a formal commitment to modernizing legal service delivery (Oundo, 2023). This trajectory was further accelerated by the COVID-19 pandemic, which necessitated virtual court sessions and remote legal operations. Presently, especially in Kampala, law firms are increasingly turning to legal technology to resolve persistent productivity challenges. These tools are proving effective in maximizing billable hours, reducing turnaround time, improving workflow coordination, and enhancing responsiveness to clients' needs.

1.2.2 Theoretical background

The study was guided by “Technology Acceptance Model” (TAM) that was introduced by Fred Davis in 1989 as a foundational framework aimed at explaining how users come to accept and utilize new technologies. Through empirical research, Davis identified Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) as critical determinants influencing technology adoption across various information systems (Davis, 1989). According to TAM, individuals are more likely to develop a favorable attitude toward a technology and use it when they perceive it to be both beneficial for their job performance and easy to use.

Expanding on this initial model, Davis, Bagozzi, and Warshaw (1989) compared TAM to the Theory of Reasoned Action (TRA), demonstrating that TAM is more effective in explaining technology acceptance in contexts where social and normative influences central to TRA are less significant (Davis et al., 1989; Cheng, 2019). Consequently, TAM has gained preference in studies focusing on individual user behavior related to technology, especially within professional and organizational settings.

Over the years, TAM has been further refined. TAM2, proposed by Venkatesh and Davis in 2000, enhanced the model by incorporating additional factors influencing Perceived Usefulness and Behavioral Intention. Later, TAM3, developed by Venkatesh and Bala in 2008, concentrated on the antecedents of Perceived Ease of Use, including aspects such as computer self-efficacy, perceived enjoyment, and anxiety (Malaysia & Lai, 2017). Despite these developments, the core premise of TAM remains constant: users' perceptions of ease of use and usefulness critically influence their intention to adopt technology (Xu & Wang, 2021). TAM's primary strength lies in its simplicity and robust predictive power, making it a highly effective tool for guiding user-centered technology adoption strategies (Rahimi & Oh, 2024). This quality renders TAM particularly applicable in diverse fields, including legal practice.

The Technology Acceptance Model is highly relevant to the study examining the effect of legal technology on the productivity of law firms in Kampala Uganda, as it provides a robust framework for understanding how legal professionals adopt and utilize technological tools in their daily practice. By focusing on the core constructs of Perceived Usefulness and Perceived Ease of Use, TAM helps explain the behavioral intentions behind technology acceptance, which is critical in assessing how legal technology enhances efficiency, streamlines case management, and improves overall firm productivity. Given that many law firms in Kampala operate within resource-constrained environments, the simplicity and predictive power of TAM allow for a practical evaluation of how user attitudes toward legal technologies such as case tracking systems, legal databases, and digital communication platforms translate into actual usage and performance outcomes.

1.2.3 Conceptual background

The study was guided by two variables of “legal technology” and “productivity” of law firms. Legal technology refers to the digitalization of the legal sector through the use of technology and software to deliver legal services more efficiently and effectively (Hartung et al., 2018). It encompasses a variety of tools designed to improve the quality and speed of legal processes. However, in this study, legal technology was looked at in form of “automation”, “legal practice management software” and “artificial intelligence”.

According to Wajcman (2017), automation involves the use of smart machines that operate autonomously within structured environments to perform routine and repetitive tasks traditionally handled by legal professionals, thereby streamlining workflows. In this study, it was looked at in form of document review, document drafting and legal research analysis. Then, legal practice management software comprises digital tools implemented by law firms to standardize working procedures, optimize workflow processes, and enhance employee productivity, satisfaction, and overall financial performance (Pilun-Owad, 2013). In this study, legal practice management software was looked at in form of case management & data storage, communication and billing. Additionally, Artificial Intelligence (AI) is a tool that simulates human cognitive functions to analyze data and generate accurate, relevant legal solutions quickly without compromising reliability (Brooks, Gherhes, & Vorley, 2020). In this study, artificial intelligence was looked at in form of data-analytics, legal research tools and predictive analytics.

On the other hand, productivity in law firms is defined as the real labor output per hour worked, reflecting how effectively a firm balances billable hours, operational efficiency, and client satisfaction to improve overall performance (Steindel & Stiroh, 2001; Pasyk, 2019). However, in this study productivity in law firms was measured in terms of output quality, case time cycle, number of cases handled and client satisfaction.

1.2.4 Contextual background

The research was conducted among law firms in Kampala, Uganda. The foundation of the legal profession in Uganda is primarily governed by the 1995 Constitution (as amended), which establishes the doctrines of rule of law and separation of powers. Article 126(1) provides that judicial power is derived from the people and exercised in conformity with their laws, values, and aspirations. The court system is established under Article 129 and includes the Supreme Court, Court of Appeal (which also serves as the Constitutional Court), the High Court, and subordinate courts. Legal practice is regulated by the Advocates Act (Cap 295) and the Law Council, which sets professional standards, oversees disciplinary procedures, and accredits legal education providers.

The emergence of legal technology in Uganda is transforming the legal profession, propelled by global digital trends and national digitalization agendas (Muigua, 2020). The sector is regulated by several laws including the Electronic Transactions Act (Cap 99), the Electronic Signatures Act (Cap 98), the Computer Misuse Act (Cap 96), and the Data Protection and Privacy Act (Cap 97), which provide the legal basis for digital interactions and cybersecurity. Policy frameworks such as the National ICT Policy (2014) and the Digital Uganda Vision 2020–2040 support the strategic integration of digital tools (Ministry of ICT and National Guidance, 2014; NITA-U, 2020). Institutions such as the Uganda Communications Commission (UCC) and the National Information Technology Authority-Uganda (NITA-U) oversee the implementation and promotion of ICT innovations. These efforts have encouraged the adoption of systems like the Electronic Court Case Management Information System (ECCMIS), e-filing, and legal research tools, with boutique law firms increasingly focusing on niche areas such as technology and intellectual property law.

However, despite notable technological advancements and a growing legal technology culture within Kampala law firms, the sector continues to grapple with a persistent productivity crisis. Structural challenges such as outdated regulatory frameworks, inadequate ICT infrastructure, low digital literacy, and high implementation costs further constrain effective technology utilization. Kampala’s legal market remains oversaturated, with over 780 law firms competing for a limited pool of high-value cases, yet fewer than 1% reportedly control 60% of these matters, leaving the majority operating at subsistence levels (Mukiibi & Magunda, 2019). The International Labour Organization (2022) reports that Ugandan professionals, including lawyers, average only 33 working hours per week compared to the recommended 48 hours, reflecting a 31% labour utilization deficit. Similarly, global benchmarks from the Clio Legal Trends Report show that lawyers bill only 2.5 hours of an 8-hour workday approximately 31% utilization while “realization and collection rates continue to limit overall firm revenue,” thereby constraining productivity and profitability (Clio Legal Trends Report, 2021).

The magnitude of poor productivity manifests across several measurable dimensions. First, poor output quality arises where firms lose up to 69% of available billable time, limiting thorough legal research, drafting precision, and strategic case preparation (Clio Legal Trends Report,

2021). Second, long case time cycles persist due to limited automation in document management and workflow systems; empirical studies suggest that effective digital workflow integration can reduce case turnaround time by 20–40%, implying that firms without such systems experience prolonged delays (Obisesan et al., 2024). Third, the low number of cases handled per advocate is consistent with the 31% billing utilization rate, meaning nearly 70% of potential productive hours remain unconverted into case output (Clio Legal Trends Report, 2021). Fourth, low client satisfaction results from delayed communication, slow case progression, and inconsistent service delivery, contributing to higher client attrition and reduced repeat engagements. The International Bar Association (2023) cautions that firms failing to modernize technologically risk declining competitiveness and eventual closure, noting that digitally advanced firms demonstrate stronger client retention and operational efficiency compared to traditional practices.

Despite these realities, a critical empirical gap remains regarding whether the perceived usefulness and perceived ease of use of legal technology genuinely enhance productivity or merely reinforce existing inefficiencies. Scholars such as Obisesan et al. (2024) argue that while legal technologies promise automation and efficiency gains, there is insufficient localized evidence demonstrating tangible improvements in output quality, shortened task and case time cycles, increased case volumes, and enhanced client satisfaction within Ugandan law firms. Without such clarity, firms risk investing in costly systems that simply digitize conventional processes without achieving meaningful transformation. Consequently, this study sought to examine the effect of legal technology on the productivity in laws firms in Kampala, Uganda.

1.3 Problem statement

Legal technology is ideally expected to enhance productivity in the organization (Singla & Gupta, 2024). When properly adopted, legal technology enables firms to automate routine tasks, facilitate real-time case management, and offer timely legal services, thus boosting overall efficiency and competitiveness. Law firms in Kampala have taken steps toward digital transformation, adopting various legal technology tools such as case management software, digital billing systems, and client communication platforms (Kuhimbisa, 2024). These efforts align with global trends that associate digital integration with improved service delivery and organizational performance.

Despite the presence of digital infrastructure and an emerging legal technology culture within Kampala law firms, the actual situation reveals a persistent productivity crisis. Kampala's legal sector is overcrowded, with over 780 law firms competing for a limited pool of high-value legal matters, and fewer than 1% reportedly securing 60% of high-profile cases, leaving the majority operating at subsistence levels (Mukiibi & Magunda, 2019). The International Labour Organization (2022) reports that Ugandan professionals, including lawyers, average only 33 working hours per week compared to the recommended 48 hours, reflecting a 31% labour utilization gap. Global benchmarks mirror this inefficiency. The Clio Legal Trends Report indicates that lawyers bill only 2.5 hours of an 8-hour workday (approximately 31% utilization), and further notes that "the average realization and collection rates continue to limit overall firm revenue," thereby constraining productivity and profitability (Clio Legal Trends Report, 2021).

The magnitude of poor productivity is reflected in several measurable dimensions. First, poor output quality is linked to time pressure and underutilization inefficiencies; the Clio report (2021) observes that firms losing up to 69% of available billable time often struggle to maintain consistent quality and timely delivery of legal services. Second, long case time cycles persist where limited automation in document management and case tracking delays service delivery; studies on legal process efficiency show that digital workflow adoption can reduce case turnaround time by 20–40%, implying that firms without such integration experience prolonged cycles (Obisesan et al., 2024). Third, the low number of cases handled per advocate corresponds with the 31% billing utilization rate, meaning nearly 70% of potential productive time remains unconverted into case output (Clio Legal Trends Report, 2021). Fourth, low client satisfaction is evident where inefficiencies translate into delays and inconsistent communication; the Clio report (2021) highlights that firms with poor responsiveness and slow case progression experience higher client attrition and reduced repeat business. Additionally, the International Bar Association (2023) warns that firms failing to modernize technologically risk declining competitiveness and eventual closure, emphasizing that digitally advanced firms demonstrate higher client retention and service efficiency rates compared to traditional practices. Compounding these structural weaknesses is the absence of empirical clarity on how perceived usefulness and perceived ease of use of legal technology translate into tangible productivity outcomes in Ugandan law firms. It remains uncertain whether existing technologies

meaningfully improve output quality, shorten case time cycles, increase case volumes per advocate, and enhance client satisfaction, or merely digitize traditional workflows without measurable gains (Obisesan et al., 2024). Consequently, this productivity gap evidenced by low labour utilization (33 hours versus 48 recommended), 31% billable-hour realization, and concentrated case distribution undermines the sustainability of most firms. This study, therefore, sought to examine the effect of legal technology on productivity in law firms in Kampala Uganda.

1.4 General objective of the study

To examine the effect of legal technology on productivity of law firms in Kampala Uganda

1.5 Specific Objectives

- i. To examine the effect of automation on productivity in law firms in Kampala Uganda
- ii. To assess the effect of legal practice management software on productivity in law firms in Kampala Uganda
- iii. To investigate the effect of artificial intelligence on productivity in law firms in Kampala Uganda

1.6 Research Questions

- i. What is the effect of automation on productivity in law firms in Kampala Uganda?
- ii. What is the effect of legal practice management software on productivity in law firms in Kampala Uganda?
- iii. What is the effect of artificial intelligence on productivity in law firms in Kampala Uganda?

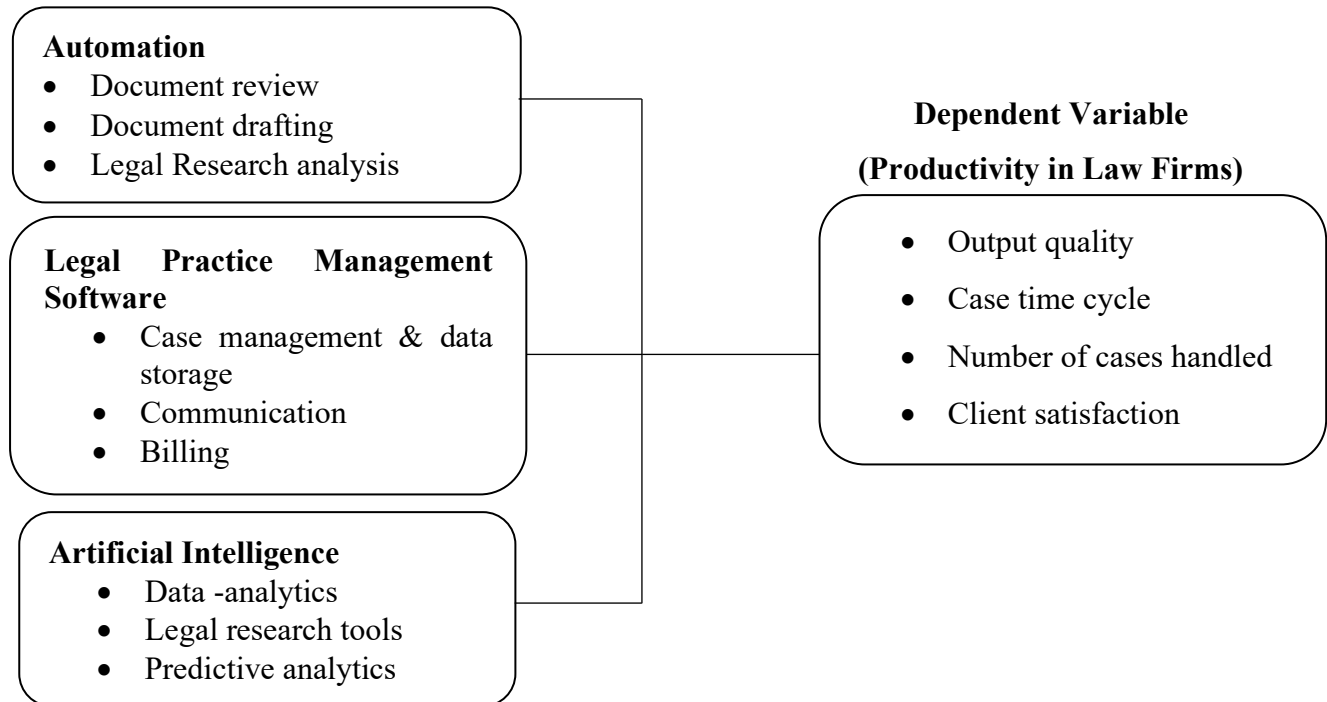
1.7 Hypotheses of the study

- H_{01} Automation has no significant effect on productivity in law firms in Kampala Uganda
- H_{02} Legal practice management software has no significant effect on productivity in law firms in Kampala Uganda
- H_{03} Artificial intelligence has no significant effect on productivity in law firms in Kampala Uganda

1.8 Conceptual Framework

The framework shows how legal technology (independent variable) was linked to productivity of law firms (dependent variable) as presented in Figure.1 below”.

Independent variable (Legal technology)



Source: Adopted from Jin et al., (2025) and modified by the researcher.

Figure 1.1: Conceptual Framework

The conceptual framework captures the independent variable as legal technology with its three constructs of automation, legal practice management software and artificial intelligence and it was hypothesized that these constructs influence the dependent variable which is productivity in law firms in Uganda. It was hypothesized that if legal technology is effectively implemented, it leads to increased output quality, case time cycle, number of cases handled and client satisfaction. Therefore, the researcher sought to confirm this hypothesis by carrying out this study examining the effect of legal technology on productivity in law firms in Uganda.

1.9 Justification of the study

Although the global legal industry has increasingly embraced technologies such as automation, legal practice management software, and artificial intelligence, there is limited empirical research examining how these tools affect productivity within law firms in Kampala. Existing

studies predominantly focus on broader or international contexts, often overlooking the unique operational challenges and technological readiness of law firms in Uganda. This creates a notable knowledge gap in understanding the extent to which legal technology tools contribute to productivity improvements in this specific setting. Therefore, this study sought to address that gap by examining the effect of legal technology on the productivity of law firms in Kampala. By assessing the perceived usefulness and ease of use of these tools, the study offered empirically grounded insights that can inform technology adoption strategies, support decision-making among legal practitioners, and contribute to the advancement of digital innovation within Uganda's legal sector.

1.10 Significance of the study

The study of legal technology and productivity in law firms is significant as it tackles the critical empirical gap regarding the role of legal technology in the enhancement of productivity of law firms in Kampala, the central business district of Uganda. By concentrating on how the perceived usefulness and ease of use of Automation, Legal Practice Management Software and Artificial Intelligence translate into measurable productivity outcomes specifically effectiveness, efficiency and profitability.

The study outcome provides vital insights for law firms seeking to enhance their productivity and competitiveness. By understanding how digitalisation can minimize paper waste, energy consumption and storage space requirements, the study contributes to strategic legal technology decision making by law firms which ultimately contributes to the larger environmental sustainability goals.

The study findings equips the legal services sector in Uganda with knowledge of how specific legal technology tools can enhance productivity by fostering inclusive innovation by legal practitioners for improved client service delivery.

The study significantly guides policymakers about promoting technology adoption within the legal sector and design policies that are geared towards a more inclusive modern and efficient

legal sector in Uganda to reduce barriers to entry for the small and medium size start up law firms that can extend services to the underserved community members.

The study also contributes to the academic literature by equipping the academic world with critical knowledge on how legal technology can be leveraged to produce competitive legal professionals equipped with knowledge of best practices in the legal sector. Moreover, the study may guide future researchers to explore further the nexus between legal technology and legal practice in emerging markets.

1.11 Scope of the study

This section captures the content scope, geographical scope and time scope.

1.11.1. Content scope

This study focused on understanding how legal technology affects productivity in the law firms in Kampala City Uganda. The study variables of the legal technology phenomena was limited to the legal technology tools of automation, legal practice management software and artificial intelligence to establish how they affect productivity in the law firms in terms of output quality, case time cycle, number of cases handled and client satisfaction.

1.11.2 Geographical scope

The study was conducted in law firms in Kampala Central Division because it was the hub where most tech savvy law firms are located. Kampala Central Division is one of the five administrative divisions of Kampala City in Uganda, situated at the heart of the city and encompassing the Central Business District, key government offices, commercial hubs, and major neighborhoods such as Nakasero, Kololo, Kamwokya, Old Kampala, Kisenyi, and the Industrial Area. Geographically, it is centrally located within Kampala District, with approximate coordinates of 0.32° N latitude and 32.57° E longitude. The division shares borders with the other four divisions of Kampala: Kawempe Division to the north and northwest, Nakawa Division to the east and southeast, Makindye Division to the south and southeast, and Rubaga Division to the west and southwest, forming the administrative core of the Kampala Capital City Authority.

1.11.3 Time Scope

The research was conducted between January-2025 to November 2025. And the study explored literature between 2020 to 2025 so as to capture the recent trends in technology adoption and usage within the legal industry in light of the post COVID-19 pandemic accelerated digital drive. During this period, the researcher explored, the perceptions of legal professionals regarding legal technology tools, their usefulness and ease of use, and any measurable changes in productivity metrics such as case time cycle, number of cases handled, client satisfaction and revenue of law firms.

1.12 Operationalized definitions of key terms

Automation: This denotes the implementation of legal technology to perform repetitive legal tasks like document review, letter writing and drafting of pleadings drafting with minimal human effort. In this study, automation was looked at in form of document review, document drafting and legal research analysis.

Artificial Intelligence (AI): This refers to the use of intelligent software that enhances performance of legal tasks like document analysis, automated legal research and predictive analytics. The variable was explored in terms of data-analytics, legal research tools and predictive analytics.

Legal Practice Management Software: This embodies tools that assist in case management, communication and billing.

Productivity: In law firms it refers to the measurable output of legal services such as the number of cases handled, time efficiency, and client satisfaction achieved relative to the resources and time invested, particularly as influenced by the use of legal technology tools. In this study, productivity was looked at in form of output quality, case time cycle, number of cases handled and client satisfaction.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents literature on legal technology and productivity of law firms anchored on existing scholarly of different scholars. The chapter begins with a theoretical review, conceptual review; empirical studies guided by research objectives and then the literature gap. The sources of the literature reviewed included journal articles, textbooks, working papers, and dissertations that have been conducted both locally and internationally.

2.2 Theoretical framework

The study was guided by the Technology Acceptance Model was developed by Fred Davis in 1989 as a foundational framework for understanding how users come to accept and utilize technology. Davis empirically tested the variables of Perceived Usefulness and Perceived Ease of Use, confirming their predictive value in determining technology adoption across various information systems (Davis, 1989). The model posits that when individuals perceive a technology as useful and easy to use, they are more likely to develop a positive attitude towards its adoption and eventual utilization.

Building upon this foundation, Davis, Bagozzi, and Warshaw (1989) expanded the theoretical basis of TAM by comparing it with the Theory of Reasoned Action (TRA). Their study revealed that TAM was more suitable for understanding technology acceptance in systems where social and normative influences core aspects of TRA were less dominant (Davis et al., 1989; Cheng, 2019). As a result, TAM became a preferred model for examining individual user behavior in relation to technology use, particularly in professional and organizational contexts.

Over time, TAM has undergone further refinements. TAM2, introduced by Venkatesh and Davis in 2000, incorporated additional determinants of Perceived Usefulness and Behavioral Intention, extending the model's explanatory power. Subsequently, TAM3 was developed by Venkatesh and Bala in 2008, focusing specifically on the antecedents of Perceived Ease of Use, such as computer self-efficacy, perceived enjoyment, and anxiety (Help University, Malaysia & Lai, 2017). Despite these expansions, the core assumption of TAM remains intact: those users'

perceptions of ease of use and usefulness significantly shape their intention and decision to adopt technology (Xu & Wang, 2021).

The main strength of TAM lies in its simplicity and strong predictive capability, making it an effective model for guiding user-centric technology implementation strategies (Rahimi & Oh, 2024). This makes it particularly valuable for applied research in diverse sectors, including the legal field. However, criticisms of TAM highlight its narrow focus on internal perceptions, overlooking the influence of external factors such as organizational environment, cultural context, and social influence elements that can play a crucial role in shaping technology adoption behaviors (Rahimi & Oh, 2024).

In the context of the current study that examined the effect of legal technology on productivity in law firms in Kampala, TAM offers a relevant theoretical lens. Legal professionals' perceptions of the usefulness and ease of use of tools such as Automation, Legal Practice Management Software, and Artificial Intelligence directly influence their attitudes and willingness to integrate these technologies into daily legal practice. As highlighted by Dwivedi et al. (2021), these perceptions are critical in shaping behavior towards legal technology adoption. Therefore, TAM provides a useful framework for assessing how these attitudes impact the broader objective of improving productivity in Ugandan law firms through technology adoption.

2.3 Empirical review

This section has been presented in the order of study objectives

2.3.1 Automation and productivity of law firms

Automation is considered as one of the most significant advancements in legal technology. Most research findings agree that Automation tools can perform routine and repetitive, time consuming tasks like document review and analysis (Dwivedi et al., 2021; Zalnieriute et al., 2019). Law Firms are increasingly adopting AI-powered automation tools to perform these functions as a shift from the traditional time-intensive document review to enable lawyers to focus on higher level tasks. For instance, Armour and Sako (2020) discuss how AI automation tools allow Law Firms to break down legal tasks, streamline routine work and take up low value tasks to reduce costs and free lawyers for complex and judgment intensive work.

In legal document analysis, lawyers have always relied on the traditional manual review of cases and precedents as well as legal documents. Scholars generally agree that legal automation has the potential to enhance efficiency in legal research. Bakhramova, Ekaterina, Khazratkulov, and Rustam (2023) and Katz and Bommarito (2014) assert that Automation allows legal professionals to obtain insights in minutes that previously took hours or days to achieve. They stress that automation tools are particularly valuable for small and mid-sized firms which have limited resources for comprehensive legal research.

Law firms have increasingly turned to document automation to streamline routine tasks, yielding substantial productivity gains. Korey and David (2024) reported that traditional copy/paste/edit methods required approximately three hours and resulted in six errors per document, whereas document automation tools could generate the same documents in fifteen minutes with 100% accuracy. Similarly, Thomson Reuters found that automating legal documents can save up to 82 percent of the time and 90 percent of the costs typically associated with document creation (Thomson Reuters, 2025). An Altman-Weil (2020) survey revealed that 45.9 percent of law firms engaging in systematic reengineering often including document automation reported significant contributions to firm performance. By leveraging predefined templates and centralized data repositories, lawyers spend less time drafting and more time on high-value work, translating into an estimated 69.4 saved workdays per 100 automated tasks annually.

Beyond document creation, automation has transformed critical functions such as document review and e-discovery. A Casepoint study of an AmLaw 200 firm demonstrated a 90 percent reduction in document review time when using AI-driven analytics compared to traditional human review (Casepoint Study, 2025). The Tynal AI Add-In further exemplifies this trend: post-implementation, average review time per 100 pages dropped from ten hours to three hours, enabling attorneys to reallocate time to strategic tasks and client consultation (Clio, 2025). In the billing arena, Whitehouse et al. (2025) compared large language models (LLMs) against human invoice reviewers and found LLMs achieved up to 92 percent accuracy and processed invoices in as little as 3.6 seconds outperforming the 72 percent accuracy and 194–316 seconds per invoice typical of experienced lawyers. These empirical findings underscore that AI-powered tools not

only expedite workflows but also enhance accuracy, reducing risks and costs associated with human error.

Workflow automation extends beyond documents to encompass case management, communication, and internal coordination. According to Trovve (2024), automating document sorting can reduce search times by up to 70 percent, while email automation (e.g., Clio Manage) organizes communications directly into case files, eliminating manual filing and reducing the risk of missed deadlines. Bolt Data Legal (2025) survey of 300 legal professionals indicated that only 53 percent have adopted case management software, but firms leveraging these tools report more efficient team collaboration through centralized dashboards and real-time progress tracking. Automated permission settings ensure that attorneys and support staff access the right documents without bottlenecks, allowing administrative personnel to shift their focus from technical maintenance to business development and client-facing tasks (Trovve, 2024). These workflow enhancements facilitate metric-driven insights real-time analytics identify bottlenecks and measure ROI, enabling firms to continuously optimize operations as they scale.

2.3.2 Legal practice management software and productivity of law firms

Law firms' adoption of legal practice management software (LPMS) has accelerated in recent years, driven by both market growth and industry recognition of its potential to enhance efficiency. According to the American Bar Association TechReport (2022), 63 percent of surveyed firms reported having LPMS available, with usage among solo practitioners rising from 32 percent in 2021 to 45 percent in 2022, and among firms of 10–49 attorneys growing from 22 percent to 40 percent over the same period. Concurrently, market-research forecasts indicate that the global LPMS market will expand from \$2.37 billion in 2024 to \$2.7 billion in 2025 a 14.2 percent compound annual growth rate reflecting increasing cloud adoption and demand for integrated case tools (Business Research Company, 2024) This growth underscores that law firms are investing in centralized platforms to replace fragmented, manual workflows.

A core productivity benefit of LPMS lies in automating routine administrative tasks. Platforms like MyCase, Clio Manage, and PracticePanther bundle client intake, calendar management, and billing modules into a single dashboard, reducing time spent on data entry and document

generation. LawCrossing notes that LPMS templates for document assembly eliminate manual drafting, thereby cutting drafting time significantly and minimizing consistency errors (LawCrossing, 2025). Furthermore, integrated time-tracking features capture billable hours in real time, translating previously “lost” minutes into billable revenue. The American Bar Association TechReport (2022) indicates that firms adopting LPMS often see administrative overhead decline by up to 40 percent, enabling lawyers to reallocate hours from menial tasks toward substantive legal work.

Although empirical academic research on LPMS productivity is still emerging, case-study evidence supports measurable gains. For instance, Pilun-owad (2013) applied a 6As Implementation Framework to a small Thai law firm, finding that standardizing data entry and automating case workflows via LPMS led to statistically significant improvements in employee productivity metrics, alongside higher job satisfaction among attorneys. Similarly, broader surveys reveal that 68 percent of firms using practice management software reported increased overall productivity, and 78 percent observed faster matter resolution and improved client satisfaction metrics American Bar Association TechReport (2022). These findings suggest that LPMS not only reduces time on administrative tasks but also fosters better service delivery and business outcomes.

However, several adoption challenges can attenuate the productivity benefits of LPMS. Resistance to change often rooted in attorneys’ comfort with established workflows remains a primary barrier. Selectifyr notes that many staff members view existing processes as “efficient enough” and may perceive LPMS implementation as disruptive, leading to underutilization of key features (Selectifyr 2024). Integration hurdles also arise when migrating data from legacy systems or syncing LPMS with preexisting document-management or accounting tools; incompatibilities can force manual workarounds, negating anticipated time savings. Smaller firms, in particular, may face budget constraints related to licensing and training costs (Selectifyr 2024). Without robust change management, comprehensive user training, executive buy-in, and technical support law firms risk deploying LPMS in a partial or ineffective manner, thereby limiting potential productivity gains.

2.3.3 Artificial intelligence and productivity of law firms

Law firms have increasingly integrated artificial intelligence into their workflows to enhance productivity, with both empirical and anecdotal evidence indicating substantial efficiency gains. According to interviews with chief operating officers and partners at AmLaw100 firms, AI deployments have already yielded “productivity gains greater than 100 times” in certain high-volume litigation tasks; for example, an AI-powered complaint response system reduced associate drafting time from 16 hours to just 3–4 minutes (Couture, 2023; Financial Times, 2024). Law firms view these dramatic time savings not merely as a reduction in billable hours, but as an opportunity to shift attorneys’ focus toward higher-value strategic analysis, thereby improving overall service quality (Couture, 2023).

Empirical comparisons of AI systems versus human reviewers further illustrate these gains. Whitehouse et al. (2025) evaluated large language models (LLMs) on legal invoice review tasks and found that LLMs achieved up to 92% accuracy far surpassing the 72% ceiling of experienced human lawyers while completing reviews in as little as 3.6 seconds compared to the 194–316 seconds taken by lawyers (Whitehouse et al., 2025). This study also demonstrated a 99.97% reduction in review costs when using AI, highlighting how automation can drive both time and expense efficiencies (Whitehouse et al., 2025). Such results signal that AI is not only matching human performance but, in many cases, outperforming it across key productivity metrics.

Beyond billing and litigation support, AI’s impact on legal research and document review has been widely documented. A report by the Thomson Reuters Institute projects that AI could free up roughly four hours per week per legal professional within one year of adoption translating into approximately 200 hours annually (Thomson Reuters Institute, 2024). Similarly, tools like ROSS Intelligence claim to reduce legal research time by up to 30% by rapidly sifting through vast databases of case law and statutes (Law and World, 2024). JPMorgan Chase & Co.’s COIN system exemplifies these benefits: it reviews commercial loan agreements in seconds, a process that previously consumed 360,000 attorney hours per year (Law and World, 2024). Collectively, these findings underscore how AI augments routine legal tasks, allowing attorneys to reallocate efforts toward client-facing and strategic initiatives.

Case studies further reinforce AI's productivity benefits. At V500 Systems, AI-driven document analysis yielded efficiency gains of up to 70%, enabling rapid processing of large document volumes with improved accuracy over manual review (Shahrestani, 2024). In PNC Bank's legal bill review, AI reduced review times and improved consistency, resulting in cost savings and strengthened relationships with external firms (Shahrestani, 2024). Another law firm that adopted predictive analytics reported accelerated case strategy formulation, as the AI tools helped anticipate likely outcomes, streamlining decision-making processes. While these implementations vary in scope, they collectively demonstrate that AI can transform multiple facets of legal operations.

AI adoption is also reshaping access to justice. A Berkeley Law study found that, when provided access to advanced AI tools (ChatGPT-4, CoCounsel, Gavel), legal aid attorneys significantly increased their productivity, improving service delivery for low-income clients; moreover, the gender gap in AI adoption vanished once tools were made equally available (Reuters, 2024). Such findings suggest that AI can democratize legal assistance by automating time-intensive tasks, thereby allowing lawyers in legal aid settings to serve more clients without compromising quality (Reuters, 2024).

Despite the clear productivity upsides, challenges remain. Ethical and data-privacy concerns persist, particularly regarding the reliability of AI-generated outputs and potential biases in training data (Bogosh & Weil, 2024). Establishing robust AI governance frameworks is critical to mitigate risks related to confidentiality and output accuracy (Bogosh & Weil, 2024). Additionally, initial investment costs can be substantial; however, many firms view these expenditures as justifiable, expecting that future increases in billing rates for high-value, strategic work will offset AI deployment costs (Couture, 2023). Ensuring equitable adoption so that smaller firms and underrepresented groups can leverage AI is essential to avoid exacerbating industry disparities (Reuters, 2024). Across studies, scholars like Duan et al. (2019) also agree that AI not only improves efficiency in document review and analytics, but also relieves lawyers from labour-intensive tasks to focus on the strategic and judgment-based work. The value of AI in litigation planning and case outcome predictions is acknowledged as an important tool that aids lawyers to estimate and manage high stake litigation and improve productivity.

2.4 Literature gap

The reviewed literature indicates that automation, legal practice management software and artificial intelligence significantly enhance the productivity of law firms by reducing time spent on routine tasks, improving billing accuracy, streamlining document review, and strengthening workflow coordination. Empirical evidence from the United States, the United Kingdom, and other developed economies shows that AI-powered tools and integrated practice management systems generate substantial efficiency gains, cost reductions, and improved service delivery. However, most of these studies are based on large international firms, industry surveys, case studies, and vendor-generated reports conducted outside Africa. There is limited empirical research focusing on developing legal markets, particularly within Sub-Saharan Africa, and specifically Uganda.

Furthermore, existing studies often examine automation, LPMS, and artificial intelligence independently rather than assessing their combined effect on overall firm productivity within a specific institutional and regulatory context. Many investigations emphasize time and cost savings without adequately examining firm-level productivity dynamics, organizational readiness, and contextual constraints influencing technology adoption. Consequently, there remains limited context-specific empirical evidence on how legal technology influences the productivity of law firms in Kampala, Uganda. Therefore, this study seeks to examine the effect of legal technology on the productivity of law firms in Kampala, Uganda.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter outlines the methodological framework that was employed in the study exploring the effect of legal technology on productivity in law firms in Kampala. The chapter highlights the research design, target population, sample size, data collection methods, instruments, and procedures. Furthermore, it captures data quality control measures, data analysis and presentation techniques, ethical considerations, and potential study limitations.

3.2 Research design

A research design serves as a structured framework that guides the processes of data collection, measurement, and analysis, offering a blueprint tailored to effectively address specific research questions (Ridder, 2017). This study adopted a cross-sectional survey design, selected for its efficiency in facilitating quick and cost-effective data collection (Creswell & Creswell, 2018). Both quantitative and qualitative approaches were employed. The quantitative method allowed the gathering of data that can be statistically measured and analyzed, while the qualitative method provided in-depth, descriptive insights that cannot be captured through numerical data alone (Mugenda & Mugenda, 2013). By integrating these two approaches through a mixed-methods design, the study enabled methodological triangulation leveraging the strengths of each method to offset the limitations of the other. This combination enhanced the validity and credibility of the research by reducing potential biases associated with relying on a single approach.

3.3 Study population

A study or target population refers the group of individuals who are the focus of the study and on which the study outcome would be inferred (Garg, 2016). The target population on which the study focused comprised of five law firms in Kampala that had implemented advanced technological innovations in their legal practice. These firms—to wit; *Orima & Co. Advocates*, *Amber Advocates & Solicitors*, *Kirunda & Co. Advocates*, *KTA Advocates*, *AB & David Advocates* had adopted modern legal tech tools which made appropriate for this study. The

intended participants were 75 in total which included Partners (9), lawyers (50) and supporting staff (16). It's from this population that sample size was drawn.

3.4 Sample size determination

Eyler (2020) defines a sample as a subset of a population that accurately reflects its characteristics. In this study, the researcher selected a representative sample size while ensuring it remains manageable to facilitate the collection of high-quality and comprehensive data. Based on the Krejcie and Morgan (1970) sample size determination table, a total of 67 participants was considered in the study. The detailed distribution of this sample size is presented in Table 3.1.

Table 3.1: Study sample size

Category	Population	Sample size	Sampling method
Partners	09	09	Purposive sampling
Lawyers	50	44	Simple random sampling
Support staff	16	14	Simple random sampling
Total	75	67	

3.5 Sampling techniques and procedures.

The study employed both purposive and simple random sampling techniques.

3.5.1 Purposive sampling

Palinkas et al., (2015) describes purposive sampling as a method of selecting participants based on the researcher's judgment, specifically targeting individuals with relevant knowledge or experience related to the study topic. In this study, purposive sampling was applied to select partners from law firms, as they are presumed to have substantial expertise and familiarity with legal technology and its impact on productivity within the legal sector. Their informed perspectives offered valuable and in-depth insights into the study objectives.

3.5.2 Simple random sampling

Aguinis, Hill, and Bailey (2021) define simple random sampling as a method in which every member of the population has an equal and independent chance of being selected to participate in a study. In this research, the technique was applied to select lawyers and support staff from the chosen law firms. The researcher utilized a raffle draw approach, where participants randomly

picked from papers labeled "Yes" and "No." Those who draw a "Yes" were included in the study, while those who pick "No" were excluded. This method reduced sampling bias and ensure fairness in the selection process.

3.6. Data collection methods

The study used interviews, questionnaire survey and document review to collect data.

3.6.1 Interview

The researcher conducted in-depth interviews with the key informants by asking open-ended questions to acquire the desired information. The researcher therefore, engaged in Key Informant Interviews (KII) with the selected key informants from the category of partners. With this method, the researcher was able to obtain comprehensive insights about the study topic. This method also afforded the researcher an opportunity to paraphrase and rephrase the questions in solicitation for in-depth insights on the study theme (Tavory, 2020). In this case, therefore, the data collection instrument to be used was the interview guide to obtain qualitative data.

3.6.2 Questionnaire survey

The survey method was employed to gather quantitative data from respondents, specifically targeting lawyers and support staff within the law firms. This approach was chosen because it enables participants to express their views promptly, objectively, and efficiently, allowing for the collection of standardized data across a wide sample. The survey method was particularly suitable for this study as it ensures a high response rate by offering a convenient and less time-consuming way for busy professionals to participate, while also facilitating the rapid and comprehensive coverage of a large population (Bell et al., 2022). To implement this method effectively, the researcher utilized a structured questionnaire comprising close-ended questions, which were designed to capture precise, measurable, and comparable responses related to the study variables.

3.6.3 Document review

The researcher adopted the document review method as an additional approach to gather secondary data relevant to the study. This method involves the systematic examination and analysis of existing records and documents to extract meaningful information that supports the research objectives. Through this technique, the researcher critically reviewed various materials

such as legal technology policies, strategic plans, productivity reports, and legal technology usage logs to gain deeper insights into the current adoption and impact of technological tools in law firms. Specifically, these documents provided valuable information on the implementation and outcomes of Automation, Legal Practice Management Software, and Artificial Intelligence in enhancing efficiency and productivity within legal practices. By triangulating these secondary sources with primary data, the researcher aimed to enrich the understanding of how technology-driven solutions are shaping the operational and service delivery processes in modern law firms.

3.7 Data collection instruments

The study employed an interview guide, structured questionnaire and documentary check list to gather data from the field.

3.7.1 Interview guide

Qualitative data was collected through face-to-face interviews with law firm partners using a structured interview guide. This tool was used to gather in-depth information by asking open-ended questions that are specifically designed to explore the study objectives in detail. The interview guide allowed the researcher to probe further for clarity and deeper insights, ensuring that participants fully elaborate on their responses. According to Babbie (2020), an interview guide is essential for directing conversations in a focused yet flexible manner, helping the researcher to obtain comprehensive and meaningful data. This instrument was chosen to understand the nuanced experiences and expert perspectives of law firm partners regarding legal technology and its influence on productivity.

3.7.2 Structured questionnaire

In this study, a questionnaire was the main tool for collecting quantitative data from lawyers and support staff. It consisted of structured, closed-ended questions aligned with the research objectives and formatted using a 5-point Likert scale to ensure consistency in responses and reduce the inclusion of irrelevant information. The questionnaires were physically distributed by the researcher with the help of research assistants to ensure broad and efficient coverage. According to Kothari (2014), questionnaires are especially effective in social science research involving large samples, making them suitable for this study due to their ability to gather

standardized data quickly and systematically. This instrument was chosen to facilitate objective analysis and to ensure clarity and uniformity in the data collected.

3.7.3 Document review checklist

This aided in the evaluation of documents to obtain pertinent information that is relevant to the study. The researcher looked at the legal technology policy and strategy documents, productivity reports, legal technology usage logs among others to gain useful insights for understanding how Automation, Legal Practice Management Software and Artificial Intelligence enhance productivity in law firms.

3.8 Procedure for data collection

Upon successful defense and formal approval of the research proposal, the researcher secured an official introduction letter from the Research Ethics Committee of Uganda Management Institute. This letter was presented to the appropriate authorities within the law firms to formally seek permission to collect data from the identified participant groups. After receiving the necessary approvals, the researcher obtained informed consent from the participants before administering the questionnaires and arranging interview sessions (Sil & Das, 2017). Questionnaires were distributed and collected after one week, while each interview lasted approximately 20 to 25 minutes per respondent.

3.9 Measurement of Study Variables

Legal technology

In this study, legal technology was measured using the dimensions of automation, legal practice management software, and artificial intelligence, as suggested by (Kerikmäe, Hoffmann, & Chochia, 2018). The variable was measured using a five-point Likert scale, with response options ranging from “5-strongly agree, 4-agree, 3-neutral, 2-disagree and 1-strongly disagree”. The five-point Likert scale facilitates the measurement of variables by reflecting respondents’ different levels of agreement, enabling a precise, consistent, and quantifiable evaluation of their perceptions.

Productivity in Law Firms

In this study, productivity in law firms was measured using the dimensions of output quality, case cycle time, number of cases handled, and client satisfaction, as proposed by (Robbins & Judge, 2024). Data was gathered through a questionnaire employing a five-point Likert scale, with responses ranging from “5-strongly agree, 4-agree, 3-neutral, 2-disagree and 1-strongly disagree”. The five-point Likert scale supports variable measurement by capturing respondents’ varying degrees of agreement, allowing for nuanced, standardized, and quantifiable assessment of perceptions.

3.10 Data quality control

This involved testing the validity and reliability of data collection instruments.

3.10.1 Validity test

Validity refers to the extent to which a test or measurement instrument accurately represents and measures the particular concept or variable it is intended to evaluate (Yin, 2018).

3.10.1.1 Validity for quantitative data

Face validity was assessed through the supervisor’s evaluation of both the questionnaire and the interview guide. The supervisor reviewed the tools and offered suggestions for improving any questions that seem unclear or require rephrasing. Content validity, which examines how well the instrument covers all aspects of the construct being measured (Mugenda & Mugenda, 2013). To assess this, two research experts at level of research supervisors from UMI reviewed each questionnaire item and classify it as either Relevant (R) or Irrelevant (IR) based on its alignment with the study objectives. They were also invited to comment on issues such as unclear wording, limited response options, or omitted content. The Content Validity Index (CVI) was then computed using the formula: $CVI = R/(R + IR)$. The validity was achieved given that all CVIs exceeded 0.7, as recommended by (Bhandari, 2022; Mugenda & Mugenda, 2013).

Table 3.2: Validity Test

Construct	Total Items	Relevant Items	Irrelevant	CVI
Automation	13	11	02	.85
Legal Practice Management Software	15	12	03	.80
Artificial Intelligence	14	11	03	.76

Productivity	13	12	01	.92
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Items deemed irrelevant were revised accordingly to improve the overall validity of the instruments.

3.10.1.2 Validity for qualitative data

Validity testing of the qualitative data collection tool involved evaluating whether the instrument accurately and appropriately captured the intended constructs. In this study, content validity was the key method employed to ensure the instrument fully addresses all essential aspects of the research topic (Inan, 2024). This process involved expert reviews by two qualified individuals specifically the researcher's supervisors who assessed the items for relevance, clarity, and comprehensiveness. Their feedback played a crucial role in confirming the instrument's credibility and suitability for gathering reliable qualitative data.

3.10.2 Reliability test

The researcher evaluated the consistency of responses generated by the data collection instrument across different conditions and time periods (Creswell & Creswell, 2018).

3.10.2.1 Reliability for quantitative data

The researcher conducted a pilot study to assess the consistency and logical flow of the research instrument. To determine the reliability of the questionnaire, it was administered to a sample of 10 individuals who were not part of the main study. The responses from this pilot test were analyzed using Cronbach's alpha in the Statistical Package for Social Sciences (SPSS) version 23. A higher Cronbach's alpha value indicates greater reliability of the instrument; results scored above 0.7 which showed reliability as recommended by (Mugenda & Mugenda, 2013).

Table 3.3: Reliability Test

Construct	Item tested	Alpha values
Automation	13	.886
Legal Practice Management Software	15	.947
Artificial Intelligence	14	.929
Productivity	13	.911

3.10.2.2 Reliability for qualitative data

To assess the reliability of qualitative data, the researcher used triangulation methods, including cross-checking findings with existing literature and seeking input from external experts, to enhance data credibility (Leung, 2015). By integrating participant viewpoints and applying multiple validation strategies, the researcher aimed to reinforce the trustworthiness of the qualitative results and ensure that the data is both relevant and reflective of the context under investigation.

3.11 Data analysis

The researcher analyzed qualitative and quantitative data differently as presented below;

3.11.1 Qualitative data analysis

The researcher recorded all interviews to ensure precise transcription of participants' responses. Thematic analysis was employed to analyze the qualitative data by systematically organizing responses according to both predetermined research themes and emerging patterns, in alignment with the study's objectives (Sekaran & Bougie, 2013). This process involved coding the data to identify key categories and recurring patterns across variables. Responses were then grouped into main themes related to each research objective, with subthemes identified under each category. Participant views were interpreted in relation to the specific objectives, and outstanding quotes, phrases, and statements were selected to authentically reflect their perspectives within the study context.

3.11.2 Quantitative data analysis

After data collection, the next phase involved the processing and analysis of the gathered information. Quantitative data analysis was conducted using the Statistical Package for Social Scientists Ver. 23. This software was used to calculate percentages, frequencies, means and standard deviations. Furthermore, the correlations and regressions were run to determine the relationships between the components and the predictability of the legal technology on productivity of law firms respectively. To assess the linear relationship between these variables, Pearson correlations were applied due to their efficiency and straightforward analytical approach. Additionally, a linear regression analysis was carried out to evaluate the predictive potential of constructs of legal technology on productivity of law firms. This analysis provided insights into

how each element predicts the productivity of law firms. The results of these analyses were presented in tables, accompanied by explanatory statements to facilitate a better understanding of the findings.

3.12 Ethical clearance

To ensure that the research study was consistent and adheres to the requisite ethical standards in its design stage, implementation and reporting, the following ethical issues were predicted as likely to emerge but appropriate measures were provided for s to address the issues as highlighted below;

Informed participant consent: Before undertaking any data collection activities, an elaborate consent form was given to participants to voluntarily sign it with clear explanation of the study purpose, methods and benefits and the participant had the right to withdraw at any time without any repercussions (Nusbaum et al., 2017).

Confidentiality and Anonymity: Because of the professional or reputational risk involved with Law Firms, the names of the participants of the law firms were kept anonymous. Data collection was anonymized by using codes as identifiers instead of names. Confidentiality was maintained and publication of results ensured that no identity related data is disclosed (Reid et al., 2018).

Plagiarism test: The researcher tested the research report to determine the similarity index to estimate the degree of plagiarism in comparison with other published works (Aguinis et al., 2021). To accomplish this, the researcher uploaded the dissertation document to the Turnitin to ensure that it meets 15% threshold of UMI.

Ethical Approval: Ethical oversights could arise but approval was obtained from Uganda Management Institute to ensure compliance with the institutional guidelines.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF STUDY FINDINGS

4.1 Introduction

This chapter presents, analyzes, and interprets the study's findings. It includes both descriptive and inferential statistical analyses, starting with the demographic characteristics of the respondents and then addressing the results pertaining to the study objectives, which focus on examining the effect of automation on productivity in law firms in Kampala Uganda, assessing the effect of legal practice management software on productivity in law firms in Kampala Uganda and investigating the effect of artificial intelligence on productivity in law firms in Kampala Uganda.

4.2 Response Rate

The figure below shows the participants that provided responses and those who did not.

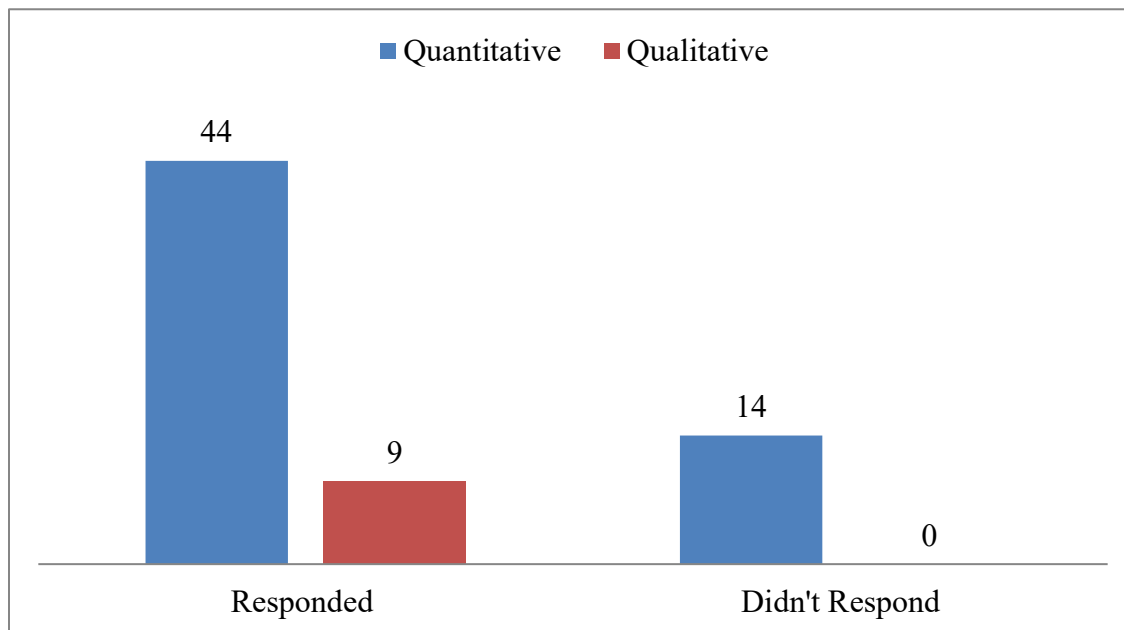


Figure 4.1: Showing the Response Rate

Figure 4.1 reveals that out of the 67 targeted participants, 53 responded. Of these, 44 provided quantitative data, while 9 offered qualitative data, resulting in a response rate of 79.1%. This level of participation surpasses the 70% benchmark suggested by the Guttman Institute (2006), signifying a satisfactory and dependable response rate for the study.

4.3 Background information on the respondents

The study gathered demographic data from respondents to assess variables such as gender, education level, age, and years of experience working with the law firm to highlight the professional profile of the respondents and their knowledge and exposure to technology, which enhances the credibility and reliability of the study. The findings are summarized in the tables below, presented in terms of frequencies and percentages.

Table 4.1: Background information on the respondents

Background information	Category	Frequency	Percent
Sex	Male	26	59.1
	Female	18	40.9
	Total	44	100.0
Education	Diploma	1	2.3
	Bachelor's Degree	19	43.2
	Master's Degree	17	38.6
	Others	7	15.9
	Total	44	100.0
Age in years	18-27	6	13.6
	28-37	26	59.1
	38-47	10	22.7
	48-57	2	4.5
	Total	44	100.0
Number of years spent working with law firm	Less than 1	3	6.8
	1-3	16	36.4
	4-6	8	18.2
	7-9	8	18.2
	10 and above	9	20.5
	Total	44	100.0

Source: Field data, 2025

From Table 4.1 above, the findings reveal that the majority of respondents were male (59.1%) compared to their female counterparts (40.9%). This indicates that male participants slightly outnumbered females in the study. Nevertheless, both genders were well represented, ensuring that the perspectives obtained reflected a balanced view across gender lines.

In terms of education level, most respondents held a Bachelor's Degree (43.2%), followed by those with a Master's Degree (38.6%), while a smaller proportion had other qualifications such as certificates or professional training (15.9%). Only 2.3% of respondents held a Diploma. This suggests that the majority of participants were highly educated, which likely enhanced their understanding of the research questions and enabled them to provide thoughtful and informed responses relevant to the operations and management practices within law firms.

Regarding age distribution, the largest proportion of respondents fell within the 28–37 years category (59.1%), followed by those aged 38–47 years (22.7%), while 13.6% were aged between 18–27 years and only 4.5% were between 48–57 years. This pattern shows that most respondents were relatively young to middle-aged adults, typically within their active working years, and thus likely possessed the energy, motivation, and professional engagement required to contribute meaningfully to the study.

With respect to work experience, the majority of respondents (36.4%) had worked with their respective law firms for between 1–3 years, followed by those with 10 years and above (20.5%). An equal proportion (18.2%) had between 4–6 years and 7–9 years of experience, while a small fraction (6.8%) had worked for less than one year. This distribution implies that most respondents had accumulated a considerable level of experience in their firms, providing them with adequate exposure and understanding of the operational and managerial dynamics being examined in the study.

4.4 Descriptive Analysis

This section presented the descriptive result of different study variables.

4.4.1 Responses for Automation

The study further examined the influence of automation on productivity within law firms in Kampala, Uganda. Respondents were requested to rate their views, and the collected data were analyzed using frequencies, percentages, means, and standard deviations. For interpretation purposes, a mean score below 3.0 represented disagreement, a score of 3.0 indicated neutrality, while a score above 3.0 signified agreement.

Table 4.2: Responses for Automation

Statement	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	S.D
	F	%	F	%	F	%	F	%	F	%		
Automated tools help in reducing the time taken to review legal documents.	01	2.3	03	6.8	03	6.8	15	34.1	22	50.0	4.23	1.008
Automation ensures higher accuracy in identifying relevant clauses.	-	-	05	11.4	06	13.6	22	50.0	11	25.0	3.89	.920
I rely on automation to detect inconsistencies and errors in documents.	03	6.8	06	13.6	07	15.9	20	45.5	08	18.2	3.55	1.150
Automation has minimized the manual workload involved in document review.	01	2.3	05	11.4	07	15.9	18	40.9	13	29.5	3.84	1.055
Automated document review tools have improved overall productivity.	02	4.5	02	4.5	09	20.5	19	43.2	12	27.3	3.84	1.033
Automation simplifies the drafting of standard legal documents.	01	2.3	06	13.6	08	18.2	12	27.3	17	38.6	3.86	1.153
I use templates generated by automation tools to speed up document preparation.	02	4.5	08	18.2	11	25.0	15	34.1	08	18.2	3.43	1.129
Automated drafting tools help reduce errors in legal documents.	01	2.3	05	11.4	10	22.7	21	47.7	07	15.9	3.64	.967
Drafting automation enhances consistency in legal document formatting.	01	2.3	05	11.4	08	18.2	18	40.9	12	27.3	3.80	1.047
Automation allows me to focus on higher-value legal tasks during drafting.	-	-	05	11.4	08	18.2	22	50.0	09	20.5	3.80	.904
Automated research tools help me quickly find relevant case law.	-	-	01	2.3	02	4.5	23	52.3	18	40.9	4.32	.674
I find automated legal databases more efficient in analysing legal data than manual research.	01	2.3	02	4.5	08	18.2	21	47.7	12	27.3	3.93	.925
Automation improves the accuracy of legal research outcomes.	-	-	07	15.9	05	11.4	21	47.7	11	25.0	3.82	.995

Source: Field data, 2025

The findings in Table 4.2 indicate that a majority of respondents perceive automated tools as effective in reducing the time required to review legal documents. Specifically, 34.1% of respondents agreed and 50% strongly agreed with this statement, yielding a combined positive response of 84.1%. Only 9.1% of respondents indicated that automation did not significantly reduce review time. The mean score of 4.23, along with a standard deviation of 1.008, reflects a generally high level of agreement and moderate variability, suggesting that most employees consistently recognize the time-saving benefits of automation. These findings imply that

automated tools streamline the review process, allowing legal professionals to allocate more time to complex analytical tasks rather than routine examination of documents. Interview insights supported these findings. One partner from a leading law firm noted:

“Automated review tools have drastically reduced the hours our junior associates spend on initial document checks. This efficiency allows our senior lawyers to focus on substantive legal analysis and client advisory tasks, which ultimately improves both speed and quality.” (RP -02)

This indicates that automation not only saves time but also optimizes workforce allocation, enhancing overall productivity in law firm operations.

The results show that 50% of respondents agreed and 25% strongly agreed that automation helps identify relevant clauses more accurately, representing a combined positive perception of 75%. Only 11.4% disagreed, and 13.6% remained neutral. The mean score of 3.89, with a standard deviation of 0.920, points to a strong consensus about the accuracy-enhancing benefits of automated tools, though a small proportion of respondents remained less certain. These findings suggest that automated systems support precision in legal document analysis, reducing the risk of missing key contractual clauses or legal stipulations. During interviews, a partner from a mid-sized law firm highlighted:

“Automation acts as a reliable second layer of checking for our contracts. While human oversight remains crucial, the system flags clauses that might otherwise be overlooked, which reduces errors and strengthens our due diligence processes.” (RP -04)

This demonstrates that automation complements professional expertise, ensuring both efficiency and accuracy in legal review.

Analysis of the responses shows that 45.5% agreed and 18.2% strongly agreed that they depend on automation for error detection, totaling 63.7%. However, 20.4% (comprising 6.8% strongly disagreeing and 13.6% disagreeing) reported reliance on automation as limited or ineffective, and 15.9% were neutral. The mean score of 3.55 and a relatively higher standard deviation of 1.150 indicate some variation in perceptions across respondents. This suggests that while automation is widely seen as a valuable tool for detecting inconsistencies, individual trust and

experience with the system vary. Interview findings echoed this mixed perception. A partner explained:

“We often use automation to identify basic inconsistencies, like conflicting dates or clause repetitions. However, complex legal nuances still require a human eye. Automation reduces routine errors, but it cannot replace professional judgment.” (RP - 01)

This illustrates that while automation significantly assists in error detection, human expertise remains indispensable, particularly for nuanced or complex issues.

The findings indicate that 40.9% of respondents agreed and 29.5% strongly agreed that automation has decreased the manual workload in document review, accounting for 70.4% positive responses. Conversely, 13.7% of respondents indicated limited impact. The mean score of 3.84, with a standard deviation of 1.055, reflects broad recognition of automation’s role in reducing labor-intensive tasks. This suggests that automation alleviates repetitive, low-value work, enabling employees to focus on higher-order legal functions. A partner from a corporate law firm remarked:

“Prior to automation, reviewing multiple agreements for similar clauses could take days. Automation has cut this to hours, freeing our associates to work on strategic drafting and client consultation.” (RP -04)

This highlights that the reduction in manual workload directly contributes to increased operational efficiency and better allocation of legal expertise.

Respondents largely agreed that automation improves productivity, with 43.2% agreeing and 27.3% strongly agreeing, representing 70.5% of positive responses. Only 9% reported negligible impact, while 20.5% remained neutral. The mean score of 3.84, paired with a standard deviation of 1.033, shows a general consensus that automation enhances productivity, albeit with some variation in individual experience. Productivity gains are largely attributed to the faster processing of documents, reduced errors, and streamlined workflow integration. During interviews, a partner noted:

“The integration of automated review tools has allowed our teams to handle more cases simultaneously without compromising quality. This improved throughput has had a tangible impact on client satisfaction and firm profitability.” (RP -09)

This suggests that productivity improvements through automation are not just internal efficiencies but translate into measurable business outcomes.

The findings also show that 27.3% of respondents agreed and 38.6% strongly agreed that automation simplifies the drafting of standard legal documents, accounting for 65.9% positive responses. Neutral responses constituted 18.2%, while 15.9% (2.3% strongly disagreeing and 13.6% disagreeing) expressed reluctance or limited experience. The mean score of 3.86 and a standard deviation of 1.153 indicate a generally favorable perception of automation’s facilitation of drafting, with some variability in adoption. Interviews highlighted the practical implications:

“Automation allows us to generate drafts for routine contracts or NDAs quickly. It ensures consistency across templates and reduces time spent on formatting, enabling lawyers to focus on customizing critical clauses for each client” (RP -05)

This emphasizes the dual benefit of automation, saving time and standardizing document quality.

Responses indicate that 34.1% of respondents agreed and 18.2% strongly agreed with using automated templates, resulting in a combined positive response of 52.3%. However, 22.7% reported minimal reliance on templates, and 25% were neutral. The mean score of 3.43, with a standard deviation of 1.129, suggests moderate acceptance and variability in the use of automated templates. This indicates that while templates are useful for some, adoption is not uniform, possibly due to familiarity, trust, or perceived limitations of pre-generated content. From the interviews, one law firm partner commented:

“Templates are great for speeding up routine tasks, but for complex agreements, we still prefer drafting from scratch to ensure clauses reflect the client’s specific requirements.” (RP -03)

This reflects the balance between efficiency and customization in legal practice, with automation serving as a supportive tool rather than a full replacement for human judgment.

Lastly, the findings reveal that 47.7% agreed and 15.9% strongly agreed that automated drafting reduces errors, accounting for 63.6% positive responses. Disagreement was reported by 13.7%, and 22.7% were neutral. The mean score of 3.64, coupled with a standard deviation of 0.967, indicates moderate consensus on the error-reducing benefits of automation. This suggests that while automation supports accuracy, individual oversight remains essential to catch nuanced mistakes. In interviews, a partner explained:

“Automated drafting ensures that repetitive errors, like numbering inconsistencies or clause misalignments, are minimized. However, legal reasoning errors still require human intervention.” (RP -06)

This emphasizes that automation enhances precision but does not fully replace professional scrutiny.

4.4.2 Responses for Legal Practice Management Software

The study also examined the impact of legal practice management software on productivity in law firms in Kampala, Uganda. Respondents were requested to assess and rate their perspectives, and the collected data were analyzed using frequencies, percentages, means, and standard deviations to facilitate interpretation. In this analysis, a mean score below 3.0 indicated disagreement, a mean score of 3.0 represented neutrality, and a mean score above 3.0 reflected agreement.

Table 4.3: Responses for legal practice management software

<i>Statement</i>	<i>Strongly Disagree</i>		<i>Disagree</i>		<i>Neutral</i>		<i>Agree</i>		<i>Strongly Agree</i>		<i>Mean</i>	<i>S.D</i>
	F	%	F	%	F	%	F	%	F	%		
The software allows easy tracking of ongoing and closed cases.	01	2.3	02	4.5	08	18.2	14	31.8	19	43.2	4.09	1.007
I can easily retrieve case files and related documents through the software.	01	2.3	04	9.1	08	18.2	20	45.5	16	36.4	4.05	1.011
The software provides secure data storage.	01	2.3	04	9.1	09	20.5	18	40.9	12	27.3	3.82	1.018
It is easy to manage case records using the software.	01	2.3	01	2.3	05	11.4	22	50.0	15	34.1	4.11	.868
The system reduces paperwork and manual file handling in case management.	01	2.3	01	2.3	04	9.1	16	36.4	22	50.0	4.30	.904
The software facilitates effective communication among legal team members.	02	4.5	04	9.1	05	11.4	19	43.2	14	31.8	3.89	1.104

I receive timely notifications and alerts for appointments and deadlines.	01	2.3	02	4.5	07	15.9	17	38.6	17	38.6	4.07	.974
Clients can be easily contacted through the software.	01	2.3	04	9.1	08	18.2	22	50.0	09	20.5	3.77	.961
The system supports internal messaging or collaboration tools.	01	2.3	-	-	07	15.9	21	47.7	15	34.1	4.11	.841
Communication through the software improves workflow efficiency.	01	2.3	02	4.5	08	18.2	20	45.5	13	29.5	3.95	.939
The software simplifies the billing process for clients.	02	4.5	05	11.4	08	18.2	17	38.6	12	27.3	3.73	1.128
I can easily generate accurate invoices from the system.	01	2.3	05	11.4	09	20.5	18	40.9	11	25.0	3.75	1.037
The software tracks billable hours effectively.	01	2.3	05	11.4	11	25.0	14	31.8	13	29.5	3.75	1.081
Billing history are well-maintained.	01	2.3	03	6.8	11	25.0	17	38.6	12	27.3	3.82	.995
The billing features of the software help reduce billing errors.	01	2.3	04	9.1	11	25.0	16	36.4	12	27.3	3.77	1.031

Source: Field data, 2025

According to the data presented in Table 4.3, the ability of the legal practice management software to track ongoing and closed cases was positively perceived. Specifically, 31.8% of respondents agreed and 43.2% strongly agreed, indicating that a majority of 75% found the software efficient in case tracking. Only a small proportion of respondents (6.8%) disagreed or strongly disagreed, suggesting minimal resistance to the system. The mean score of 4.09, with a standard deviation of 1.007, reflects a generally favorable view with moderate consistency across respondents. These findings indicate that most employees can rely on the software to monitor the progress of cases efficiently, reducing the need for manual tracking and enhancing workflow organization. From the interview responses, a Partner from a prominent law firm noted:

"Tracking cases manually was often time-consuming and prone to error. Since adopting the management software, we can quickly review the status of all ongoing and closed cases. This has improved both transparency and accountability within our teams." (RP - 04)

This suggests that the system enhances operational efficiency, allowing legal teams to prioritize cases and ensure deadlines are met without delays caused by missing or outdated information.

The findings indicate that document retrieval through the software is highly efficient, with 45.5% of respondents agreeing and 36.4% strongly agreeing, amounting to 81.9% in total. Only 11.4% disagreed or strongly disagreed, while 18.2% were neutral. The mean score of 4.05, coupled with a standard deviation of 1.011, shows a strong overall perception of ease of retrieval, though

slight variability exists among respondents. This demonstrates that the software effectively supports quick access to case files, reducing delays in legal research and client communication. A law firm Partner elaborated during interviews:

"Previously, retrieving archived files required physical searches through cabinets, which slowed case preparation. Now, the software enables instant access to all related documents, saving significant time and improving our responsiveness to clients." (RP - 01)

This showed that the software not only improves efficiency but also strengthens client service quality by ensuring that legal staff can promptly access critical information.

Table 4.3 shows that the software's ability to provide secure data storage is positively acknowledged, with 40.9% agreeing and 27.3% strongly agreeing. A total of 11.4% disagreed, while 20.5% remained neutral. The mean score of 3.82, with a standard deviation of 1.018, indicates that while security is generally perceived as strong, a few respondents are uncertain or perceives some risk. Secure storage is crucial for legal practices to maintain client confidentiality, comply with data protection regulations, and prevent unauthorized access to sensitive information. Interview insights support this quantitative finding. A Partner explained:

"Confidentiality is critical in legal practice. The software has encrypted storage and access controls, which ensures that client data is protected while allowing authorized staff to retrieve documents efficiently. This reduces risks associated with lost or misfiled documents." (RP -06)

Thus, the system balances accessibility with security, safeguarding sensitive information while supporting workflow efficiency.

The ability to manage case records using the software was strongly endorsed, with 50% agreeing and 34.1% strongly agreeing, yielding a combined positive response of 84.1%. Only 4.6% disagreed, while 11.4% were neutral. The mean score of 4.11, along with a relatively low standard deviation of 0.868, reflects high consistency and strong agreement among respondents. This suggests that the software simplifies the process of updating, organizing, and maintaining case records, allowing legal teams to manage cases efficiently and accurately. During interviews, a Partner emphasized:

"Managing case files manually often resulted in overlooked updates. With the software, we can organize and update records easily, assign tasks, and monitor deadlines. It streamlines case management and reduces administrative burden." (RP -02)

This indicates that the software enhances workflow organization, ensuring that case records are complete, accessible, and up-to-date.

The data show that 36.4% of respondents agreed and 50% strongly agreed that the software reduces paperwork and manual handling, totaling 86.4% in positive responses. Only 4.6% disagreed or strongly disagreed, and 9.1% were neutral. The mean score of 4.30, with a standard deviation of 0.904, reflects a very strong perception that the software streamlines administrative work, minimizing physical documentation. From the interviews, a Partner highlighted:

"The reduction of manual filing has been transformative. We no longer need to manage heaps of paperwork, and document retrieval or sharing is instant. This efficiency allows us to dedicate more time to client consultation and legal analysis." (RP -03)

This reinforces the idea that automation in legal practice management significantly improves productivity while reducing administrative workload.

Responses indicate that communication within legal teams has improved, with 43.2% agreeing and 31.8% strongly agreeing, while 13.6% disagreed and 11.4% remained neutral. The mean score of 3.89, accompanied by a standard deviation of 1.104, suggests a generally positive perception, though some variability exists. Effective communication is essential for coordinating tasks, assigning responsibilities, and ensuring timely updates on case developments. An interview with a Partner revealed:

"The internal messaging and notification features have enhanced coordination. Team members can communicate about cases instantly, reducing misunderstandings and improving collaboration across departments." (RP -07)

This shows that the software strengthens team collaboration and ensures that legal processes proceed smoothly.

The software's ability to provide timely alerts is highly valued. A combined 77.2% of respondents agreed (38.6%) or strongly agreed (38.6%) that notifications improve their awareness of deadlines and appointments. Only 6.8% disagreed, and 15.9% were neutral. The

mean score of 4.07 with a standard deviation of 0.974 confirms a high level of consensus. Timely alerts are essential for reducing missed deadlines and maintaining compliance with legal timelines. From the interviews, a Partner commented:

"Automated notifications ensure that we never miss critical court dates or client meetings. This has significantly reduced the risk of delays or penalties, enhancing our reliability and client satisfaction." (RP -08)

This emphasizes that automated reminders are crucial for operational efficiency and legal compliance.

Regarding the clients can be easily contacted through the software, a combined 70.5% of respondents agreed (50%) or strongly agreed (20.5%) that the system enables easy client contact. About 11.4% disagreed, and 18.2% were neutral. The mean score of 3.77 with a standard deviation of 0.961 suggests overall positive perceptions with some variation. The feature simplifies communication with clients, enhancing responsiveness and service quality. During interviews, a Partner explained:

"The client contact module has streamlined outreach, allowing emails, updates, and reminders to be sent automatically. It reduces errors and ensures clients are always informed about their cases." (RP -05)

This shows the software's role in enhancing client relations and service delivery.

The internal messaging and collaboration functions were positively rated, with 47.7% agreeing and 34.1% strongly agreeing, totaling 81.8%. Only 2.3% disagreed, and 15.9% were neutral. The mean score of 4.11 and a low standard deviation of 0.841 indicate high consistency in responses. These tools facilitate coordination, task assignments, and information sharing among team members. A Partner noted in an interview:

"Collaboration features allow us to share documents, comment on cases, and assign responsibilities seamlessly. It keeps everyone on the same page, even in remote work scenarios." (RP -09)

This highlights the software's contribution to collaborative efficiency.

Furthermore, regarding communication through the software improves workflow efficiency, a total of 74.7% of respondents agreed (45.5%) or strongly agreed (29.5%) that communication via the software improves workflow. Only 6.8% disagreed, and 18.2% were neutral. The mean score of 3.95, with a standard deviation of 0.939, indicates a generally positive consensus. Effective communication reduces duplication of effort and ensures that tasks are coordinated. From the interviews, one a Partner mentioned:

"Before the software, miscommunications often caused delays. With integrated messaging, workflows are smoother, and deadlines are easier to manage." (RP -01)

This demonstrates that communication features directly contribute to enhanced operational efficiency.

Furthermore, the software simplifies the billing process for clients, respondents largely agreed that the software simplifies client billing, with 38.6% agreeing and 27.3% strongly agreeing. However, 15.9% disagreed, 4.5% strongly disagreed, and 18.2% were neutral. The mean score of 3.73 and standard deviation of 1.128 indicate positive perceptions but with greater variability. The system aids in generating invoices, tracking payments, and minimizing errors. A Partner explained:

"Billing automation reduces errors, ensures timely invoices, and helps track client payments efficiently. This reduces administrative bottlenecks and improves cash flow." (RP -04)

Thus, the software is seen as improving both accuracy and efficiency in financial management.

Then, regarding the statement that I can easily generate accurate invoices from the system, the responses show a majority (65.9%) agree (40.9%) or strongly agree (25%) that invoices can be generated accurately. About 13.6% disagreed, and 20.5% were neutral. The mean score of 3.75 with a standard deviation of 1.037 reflects a generally favorable view, indicating that automation supports financial accuracy. From the interviews, one Partner added:

"The automated invoice generation feature ensures correct calculations, saving time and preventing disputes with clients over billing mistakes." (RP -01)

This demonstrates that the system enhances accuracy and reliability in billing processes.

Regarding tracking billable hours was positively perceived, with 31.8% agreeing and 29.5% strongly agreeing. About 13.6% disagreed, and 25% were neutral. The mean score of 3.75 and a standard deviation of 1.081 show overall positive perception but moderate variability. Accurate time tracking ensures proper billing and resource management. Then from the interviews, a Partner stated:

"Time-tracking is precise and easy to review, which improves client billing and internal workload management. We can see how hours are spent and allocate resources better."
(RP -09)

This reflects the software's role in operational efficiency and financial control.

The findings also revealed that the software's ability to maintain billing history is positively acknowledged, with 38.6% agreeing and 27.3% strongly agreeing (65.9% combined). Only 8.6% disagreed, and 25% were neutral. The mean score of 3.82 and standard deviation of 0.995 suggest reliable functionality with consistent positive perception. Well-maintained billing history facilitates audits, client queries, and financial reporting. Regarding the interviews, a Partner explained:

"Having detailed billing records automatically stored allows us to reference previous invoices quickly, supporting both client transparency and internal audits." (RP -02)

This shows that billing history features strengthen accountability and documentation.

Finally, regarding the billing features of the software help reduce billing errors, the data indicate that 36.4% agreed and 27.3% strongly agreed (63.7% total) that the software reduces billing errors. Around 11.4% disagreed, and 25% were neutral. The mean score of 3.77 and standard deviation of 1.031 suggest favorable but moderately variable perceptions. Reducing billing errors improves client satisfaction and ensures accurate revenue collection. During interviews, one Partner noted:

"Automated billing has decreased errors drastically. Previously, manual calculations led to mistakes, but the software ensures precise, error-free invoices, enhancing client trust."
(RP -07)

This underscores the financial reliability and efficiency benefits of the software in legal practice.

4.4.3 Responses for Artificial Intelligence

The respondents were asked to share their perspectives on the impact of artificial intelligence on productivity in law firms in Kampala, Uganda, and were instructed to rate their responses accordingly. The data were analyzed using frequencies, percentages, means, and standard deviations. For interpretation, a mean score below 3.0 indicated disagreement, a mean score of 3.0 represented neutrality, and a mean score above 3.0 signified agreement

Table 4.4: Responses for Artificial Intelligence

<i>Statement</i>	<i>Strongly Disagree</i>		<i>Disagree</i>		<i>Neutral</i>		<i>Agree</i>		<i>Strongly Agree</i>		<i>Mean</i>	<i>S.D</i>
	F	%	F	%	F	%	F	%	F	%		
AI-powered analytics help identify trends and patterns in legal cases.	-	-	06	13.6	08	18.2	20	45.5	10	22.7	3.77	.961
AI tools assist in processing large volumes of legal data quickly and accurately.	-	-	06	13.6	03	6.8	23	52.3	12	27.3	3.93	.950
Data-driven insights from AI improve strategic decision-making in the firm.	-	-	08	18.2	11	25.0	20	45.5	05	11.4	3.50	.928
AI enhances our ability to monitor key performance indicators.	-	-	04	9.1	08	18.2	24	54.5	08	18.2	3.82	.843
AI supports real-time analysis of client and case data.	-	-	05	11.4	09	20.5	22	50.0	08	18.2	3.75	.892
AI-powered legal research tools reduce time spent case law review.	02	4.5	01	2.3	07	15.9	24	54.5	09	20.5	3.86	.930
AI accurately retrieves relevant statutes and case precedents.	03	6.8	08	18.2	05	11.4	22	50.0	06	13.6	3.45	1.150
The use of AI tools enhances the quality of legal arguments.	02	4.5	04	9.1	10	22.7	23	52.3	05	11.4	3.57	.974
AI improves the efficiency of legal research tasks.	01	2.3	03	6.8	04	9.1	29	65.9	07	15.9	3.86	.852
AI provides reliable predictions on case outcomes based on past rulings.	04	9.1	06	13.6	14	31.8	18	40.9	02	4.5	3.18	1.040
Predictive analytics support better risk assessment in legal strategies.	02	4.5	08	18.2	11	25.0	19	43.2	04	9.1	3.34	1.033
AI enhances forecasting of litigation timelines and resource allocation.	03	6.8	07	15.9	15	34.1	18	40.9	01	2.3	3.16	.963
AI tools assist in identifying potential legal issues before they arise.	01	2.3	07	15.9	11	25.0	19	43.2	06	13.6	3.50	1.000
Predictive AI improves legal decision-making.	03	6.8	06	13.6	10	22.7	19	43.2	06	13.6	3.43	1.108

Source: Field data, 2025

The findings indicate that the majority of respondents perceive AI-powered analytics as a significant tool for identifying trends and patterns in legal cases. Specifically, 45.5% of respondents agreed and 22.7% strongly agreed, resulting in a mean score of 3.77 with a standard deviation of 0.961. This shows that most employees recognize AI's capacity to detect patterns in

complex legal datasets, suggesting improved analytical capabilities within the firm. However, 31.8% of respondents either disagreed or remained neutral, reflecting a minority who may be uncertain about the effectiveness of AI in pattern recognition or may require further training to leverage these tools optimally. Insights from interviews with partners of law firms provided additional context. One Partner from a mid-sized firm noted:

“AI analytics help us quickly spot recurring issues in case law that might otherwise take weeks to analyze manually.” (RP -02) Another Partner emphasized: *“While the tool is powerful, its effectiveness depends on proper data input and interpretation, as AI cannot replace human judgment entirely.” (RP -04)*

These insights suggest that AI analytics are largely viewed as enhancing efficiency and insight, but the human element remains critical for interpreting results accurately.

The study shows that respondents overwhelmingly appreciate AI for processing large volumes of legal data. A total of 52.3% agreed and 27.3% strongly agreed with the statement, yielding a high mean score of 3.93 and a standard deviation of 0.950. This indicates a broad acknowledgment that AI accelerates data processing while maintaining accuracy, which can significantly reduce manual workload and enable faster case preparation. Only 20.4% of respondents were neutral or disagreed, suggesting that a small portion may lack exposure to or confidence in AI’s processing capabilities. Partners of law firms reinforced these findings during interviews. One Senior Partner explained:

“AI allows us to sift through thousands of case files in hours, something our teams would take weeks to accomplish. ...the speed and accuracy are impressive, though AI occasionally misses context-specific nuances, requiring human review.” (RP -01)

These observations confirm that AI’s data processing capabilities improve efficiency but highlight the need for professional oversight to ensure contextual accuracy.

Respondents displayed a moderate perception that AI enhances strategic decision-making, with 45.5% agreeing and 11.4% strongly agreeing, resulting in a mean score of 3.50 and a standard deviation of 0.928. Meanwhile, 43.2% of respondents either disagreed or remained neutral, suggesting that while AI contributes to strategy, there may be reservations about relying solely on predictive or analytical outputs for legal strategy formulation. Variability in responses may be

influenced by differences in familiarity with AI applications in decision-making contexts or skepticism regarding AI's reliability for strategic planning. From the interviews, partners provided deeper insights. One Partner stated:

“AI helps in forming strategy by highlighting potential outcomes and identifying precedent trends, but the final decision always rests with the human team. In complex cases, AI is useful for scenario analysis, yet seasoned lawyers’ experience remains the key driver of strategy.” (RP -09)

This suggests that while AI adds value to decision-making, it is primarily a supplementary tool rather than a replacement for expert judgment.

The results indicate that AI is seen as valuable in monitoring performance metrics. A majority of 54.5% agreed and 18.2% strongly agreed, yielding a mean score of 3.82 and a relatively low standard deviation of 0.843. These findings suggest a strong consensus that AI facilitates the tracking of key performance indicators (KPIs), likely improving project management, resource allocation, and performance oversight. Nevertheless, 27.3% of respondents either disagreed or were neutral, reflecting that not all employees may be fully confident in AI's monitoring capabilities or may encounter challenges in interpreting its outputs. During interviews, law firm partners offered complementary insights. A Partner in a corporate law firm noted:

“AI dashboards give us real-time updates on case progress and employee performance, allowing quick intervention when needed. ...KPIs are more visible with AI, but the system requires consistent updates to ensure accuracy.” (RP -05).

This confirms that AI improves performance monitoring, although proper maintenance and user engagement are crucial for realizing its full benefits.

Regarding the statement that AI Supports Real-Time Analysis of Client and Case Data, the findings show that 50.0% agreed and 18.2% strongly agreed that AI facilitates real-time analysis of client and case data, producing a mean of 3.75 and standard deviation of 0.892. These results suggest that employees generally perceive AI as a tool that enables quicker, informed decision-making by providing immediate insights into ongoing cases. However, 31.9% of respondents either disagreed or were neutral, indicating that some employees may face challenges in

integrating real-time AI insights into their workflow or may lack full trust in AI outputs. Interview insights corroborate this interpretation. One Partner mentioned:

“Real-time AI analysis allows us to anticipate client queries and prepare responses proactively. ...the speed is useful, but our lawyers still need to interpret the results carefully to avoid misapplication of data.” (RP -03)

This suggests that real-time AI analysis is enhancing responsiveness but human interpretation remains vital to ensure accuracy and relevance.

The data reveals that AI significantly reduces the time spent on case law research. A majority of 54.5% agreed and 20.5% strongly agreed, reflected in a mean of 3.86 and standard deviation of 0.930. Only a small minority disagreed or remained neutral, indicating a broadly positive perception of AI's time-saving capacity in legal research. This demonstrates that AI is considered effective for increasing efficiency and allowing lawyers to focus on higher-level strategic tasks rather than manual research. From the interviews, partners' perspectives reinforced these findings. One Partner said that:

“AI reduces hours spent scanning legal databases, allowing our team to dedicate more time to case strategy. ...while it saves time, we still cross-check results manually to ensure completeness.” (RP -08)

This meant that AI is acknowledged for efficiency in research, though verification remains a necessary step.

Furthermore, respondents displayed a more divided perception regarding AI's accuracy in retrieving statutes and precedents, with 50.0% agreeing and 13.6% strongly agreeing, producing a mean of 3.45 and a standard deviation of 1.150. However, 25% either disagreed or remained neutral, indicating that some users may question AI's ability to consistently deliver precise legal references, potentially due to limitations in dataset coverage or contextual interpretation.

Interview insights add nuance to this finding. A Partner remarked:

“AI retrieves relevant cases quickly, but sometimes older or nuanced precedents are overlooked. ...it's a good starting point, but human review ensures legal accuracy and completeness.” (RP -02)

This demonstrates that AI supports case research but cannot entirely replace lawyer expertise in nuanced interpretation.

Then, regarding the use of AI tools enhances the quality of legal arguments, a majority of 52.3% agreed and 11.4% strongly agreed that AI improves the quality of legal arguments, giving a mean of 3.57 and standard deviation of 0.974. While this suggests that AI helps refine arguments by providing relevant data and insights, 31.8% of respondents disagreed or remained neutral, signaling skepticism or limited experience with integrating AI outputs into argumentation.

Interview responses reflected this trend. One Partner noted:

“AI provides evidence and precedent that strengthens arguments, but framing them effectively still requires human skill. ...the tool improves the research component, indirectly enhancing argument quality, but strategy depends on lawyers.” (RP -01)

Thus, AI improves foundational support for arguments but human judgment remains essential for persuasion and strategy.

The findings show overwhelming agreement that AI improves research efficiency, with 65.9% agreeing and 15.9% strongly agreeing, producing a mean of 3.86 and standard deviation of 0.852. This indicates strong recognition that AI streamlines research processes, reduces time and effort, and allows lawyers to focus on more strategic tasks. Only a small minority (9.1%) expressed disagreement, which may relate to unfamiliarity or workflow integration challenges.

From the interviews, a Partner explained:

“AI accelerates research dramatically, freeing lawyers to analyze and strategize rather than merely collect data. Efficiency is clear, though novice users may require training to maximize benefits.” (RP -04)

AI is therefore considered highly effective in boosting research productivity, especially when users are adequately trained.

The perception of AI's predictive accuracy is more cautious, with 40.9% agreeing and 4.5% strongly agreeing, producing a mean of 3.18 and a standard deviation of 1.040. Nearly 22.7% disagreed, and 31.8% were neutral, highlighting uncertainty or skepticism regarding AI's reliability for predicting legal outcomes. Variability likely arises from the complex and context-

dependent nature of legal rulings, where AI may not capture all nuances. From the interviews, partners emphasized similar reservations. One Partner pointed out:

“AI can suggest trends, but legal outcomes often hinge on subjective factors that AI cannot fully predict. ...we use predictive analytics cautiously, as past rulings do not always guarantee future results.” (RP -01)

This underscores that while AI can aid risk assessment, human judgment remains critical for decision-making in complex legal scenarios.

4.4.4 Responses for productivity in law firms in Kampala

The study additionally assessed productivity levels within law firms in Kampala. Respondents provided ratings on various statements, and the data were analyzed using frequencies, percentages, means, and standard deviations. For interpretation purposes, a mean score below 3.0 indicated disagreement, a score of 3.0 reflected a neutral stance, and a mean score above 3.0 signified agreement

Table 4.5: Responses for Productivity in law firms in Kampala

<i>Statement</i>	<i>Strongly Disagree</i>		<i>Disagree</i>		<i>Neutral</i>		<i>Agree</i>		<i>Strongly Agree</i>		<i>Mean</i>	<i>S.D</i>
	F	%	F	%	F	%	F	%	F	%		
Legal services provided meet high professional standards.	-	-	05	11.4	11	25.0	20	45.5	08	18.2	3.70	.904
Legal documents produced are always accurate	02	4.5	08	18.2	14	31.8	18	40.9	02	4.5	3.23	.961
Legal documents produced are in time	01	2.3	02	4.5	08	18.2	25	56.8	08	18.2	3.84	.861
Legal documents produced are well-structured.	-	-	06	13.6	08	18.2	24	54.5	06	13.6	3.68	.883
Our law firm has reduced the average time taken to complete a case.	02	4.5	06	13.6	10	22.7	21	47.7	05	11.4	3.48	1.023
Legal technology tools have helped minimize case backlog in our firm.	02	4.5	10	22.7	11	25.0	16	36.4	05	11.4	3.27	1.086
Most cases are closed within the client's expected timeline.	07	15.9	10	22.7	12	27.3	13	29.5	02	4.5	2.84	1.160
Our law firm handles more cases now due to the adoption of legal technology.	01	2.3	11	25.0	12	27.3	14	31.8	06	13.6	3.30	1.069
The number of cases completed monthly has increased over the past year.	01	2.3	10	22.7	11	25.0	18	40.9	04	9.1	3.32	1.006
Legal technology has improved our ability to manage multiple cases	02	4.5	07	15.9	06	13.6	21	47.7	08	18.2	3.59	1.106

simultaneously.												
Clients express satisfaction with the speed and quality of our services.	01	2.3	05	11.4	07	15.9	20	45.5	11	25.0	3.80	1.025
Legal technology tools have enhanced communication and transparency with clients.	01	2.3	03	6.8	05	11.4	25	56.8	10	22.7	3.91	.910
We receive positive feedback from clients regarding our tech-enabled services.	01	2.3	03	6.8	07	15.9	26	59.1	07	15.9	3.80	.878

Source: Field data, 2025

The findings in Table 4.5 indicate that the majority of respondents perceive that legal services in their firms meet high professional standards. Specifically, 45.5% agreed and 18.2% strongly agreed with the statement, totaling 63.7% in agreement. Only 11.4% disagreed, while 25% remained neutral. The mean score of 3.70, along with a relatively low standard deviation of 0.904, suggests a generally favorable perception of the quality of legal services across the firms surveyed. These results imply that law firms in Kampala are largely successful in maintaining professional standards, which is likely reflected in client satisfaction and the credibility of legal outcomes. Interview responses provided further insights into this perception. A partner at a leading Kampala law firm noted:

“We constantly train our staff and enforce rigorous quality checks to ensure that all legal services meet professional expectations. Maintaining high standards is non-negotiable; it safeguards our reputation and ensures client trust.” (RP -02)

These statements reinforce the quantitative findings, indicating that consistent staff development and quality assurance mechanisms contribute to the perceived high standards of legal services.

Furthermore, legal documents produced are always accurate, regarding accuracy, 40.9% of respondents agreed that legal documents produced were accurate, while 4.5% strongly agreed, totaling 45.4%. Conversely, 18.2% disagreed, 4.5% strongly disagreed, and 31.8% remained neutral. The mean score of 3.23 and a standard deviation of 0.961 highlight moderate agreement but with some variability, suggesting that while accuracy is generally achieved, occasional errors or inconsistencies may occur. Factors affecting accuracy could include complex legal cases, workload pressures, or insufficient verification protocols. Insights from interviews corroborate this mixed perception. A partner explained:

“Most documents are carefully reviewed, but complex cases sometimes require multiple revisions to ensure full accuracy.” (RP -04) Another partner added: “We have

standardized templates and peer review systems, but human error cannot be completely eliminated, especially under tight deadlines.” (RP -06)

These findings suggest that while accuracy is prioritized, the nature of legal work means occasional lapses may still occur.

Regarding timeliness in document production was highly rated, with 56.8% of respondents agreeing and 18.2% strongly agreeing that legal documents are produced on time, summing to 75%. Only 6.8% disagreed or strongly disagreed, and 18.2% remained neutral. The mean score of 3.84 and a standard deviation of 0.861 reflect a positive perception and relatively low variability in responses, indicating consistent adherence to timelines. This suggests that law firms effectively manage workflows and deadlines, enhancing client satisfaction and operational efficiency. Interview responses further supported these findings. A partner noted:

“We have implemented strict internal timelines and document tracking systems, which ensure documents are ready before submission deadlines. ...using digital management systems help us keep tasks on schedule even during peak case loads.” (RP -05)

This indicates that law firms combine process discipline and technological support to ensure timely document delivery.

Then, regarding legal documents produced are well-structured, 54.5% agreed and 13.6% strongly agreed that legal documents are well-structured, totaling 68.1% in agreement. A minority of 13.6% disagreed, while 18.2% were neutral. The mean score of 3.68 with a standard deviation of 0.883 suggests a consistent perception that documents are generally organized and professionally presented. Well-structured documentation likely enhances clarity, reduces errors, and improves client confidence. Interviews provided complementary insights. A law firm partner commented:

“We follow strict formatting and citation guidelines to ensure clarity in all legal documents.” Another partner added: “Good structuring allows clients and courts to navigate documents easily, which is essential for effective case management.” (RP -03)

These statements highlight the systematic approaches firms adopt to ensure well-organized legal outputs.

Regarding the statement that our law firm has reduced the average time taken to complete a case. Responses indicate moderate agreement regarding case duration, with 47.7% agreeing and 11.4% strongly agreeing. However, 18.1% disagreed, 4.5% strongly disagreed, and 22.7% were neutral. The mean score of 3.48 and a standard deviation of 1.023 suggest that while firms have made progress in reducing case completion time, experiences vary across firms and case types. Efficiency improvements may be influenced by case complexity, staffing levels, or technology adoption. Interview insights reinforced this trend. One partner explained:

“We’ve streamlined case management processes, which reduces delays, but highly complex cases still take time. ...adopting legal technology has accelerated certain tasks, but external factors like court schedules also affect overall duration.” (RP -09)

These comments highlight that while internal improvements enhance efficiency, external dependencies still influence case completion times.

The findings reveal a moderate level of agreement that technology has helped reduce backlogs, with 36.4% agreeing and 11.4% strongly agreeing, totaling 47.8%. Conversely, 27.2% disagreed, 4.5% strongly disagreed, and 25% remained neutral. The mean score of 3.27 and a standard deviation of 1.086 suggest variability in experiences, indicating that while legal technology can alleviate backlogs, its effectiveness depends on firm size, adoption level, and staff familiarity.

Interview statements provided further context. A partner noted:

“AI-assisted tools and case management software help us track pending matters, but not all staff are fully trained to use them efficiently. ...backlogs have reduced in certain departments, yet high-volume case loads still present challenges.” (RP -05)

These insights suggest that technology adoption is beneficial but requires full integration and training to maximize impact.

Additionally, most cases are closed within the client’s expected timeline, 29.5% agreed and 4.5% strongly agreed, totaling 34%, while 38.6% disagreed or strongly disagreed, and 27.3% were neutral. The mean score of 2.84 with a standard deviation of 1.160 reflects a moderate to low agreement, indicating that many clients’ expectations are not consistently met. Delays could arise from procedural bottlenecks, extended negotiations, or dependencies on external entities. Interviews added perspective. A partner explained:

“While we strive to meet client timelines, unpredictable court schedules and client-driven delays often affect closure. ...managing client expectations is key; we communicate potential delays early to avoid dissatisfaction.” (RP -08)

These statements highlight that while firms are committed to timely case closure, external and procedural factors influence outcomes.

Furthermore, regarding the statement our law firm handles more cases now due to the adoption of legal technology, responses indicate moderate agreement: 31.8% agreed and 13.6% strongly agreed, totaling 45.4%. Conversely, 27.3% were neutral and 27.3% disagreed, indicating variability in perceived benefits. The mean score of 3.30 and a standard deviation of 1.069 suggest that technology adoption has increased capacity in some firms, but not universally. The Interview responses supported this mixed view. A partner noted:

“Digital tools allow us to manage more cases simultaneously, but older systems and limited training sometimes reduce efficiency gains.” (RP -01) Another partner added:
“Technology has helped handle routine matters faster, freeing lawyers for complex cases.” (RP -06)

These insights underscore that benefits from legal technology depend on proper implementation and staff adaptation.

Then, regarding the number of cases completed monthly has increased over the past year, the findings reveal moderate improvement, with 40.9% agreeing and 9.1% strongly agreeing. Meanwhile, 25% were neutral and 25% disagreed or strongly disagreed. The mean score of 3.32 and a standard deviation of 1.006 reflect moderate progress and some variability, suggesting that while some firms report enhanced productivity, others experience slower case resolution. Interview insights confirmed this. A partner stated:

“Case completion has increased in departments that adopted digital tracking, though high-complexity cases remain slower. ...productivity gains are visible, especially where staff are motivated and supported by technology.” (RP -04)

These highlight that case throughput depends on a combination of technological and human factors.

Regarding, legal technology has improved our ability to manage multiple cases simultaneously, a total of 65.9% of respondents agreed (47.7%) or strongly agreed (18.2%) that technology facilitates multitasking. A smaller portion (20.4%) disagreed, while 13.6% were neutral. The mean score of 3.59 with a standard deviation of 1.106 indicates general agreement with moderate variability. These results suggest that legal technology enhances the firm's operational capacity, enabling better management of concurrent cases without compromising quality. The Interview responses emphasized this benefit. A partner noted that:

“Task management software allows lawyers to track multiple cases efficiently.we can allocate resources dynamically, which is especially helpful during peak periods” (RP -01)

These responses highlight how technology supports multitasking and workload management.

The findings for the statement that clients express satisfaction with the speed and quality of our services, responses indicate that clients are generally satisfied, with 45.5% agreeing and 25% strongly agreeing. Only 13.7% disagreed and 15.9% were neutral. The mean score of 3.80 and a standard deviation of 1.025 suggest a high level of client approval and relatively consistent perceptions. This reflects the firm's ability to deliver quality and timely legal services, which enhances reputation and client retention. Interview insights reinforced this. A partner stated that:

“Clients appreciate the faster turnaround times and clear communication facilitated by technology. ...positive feedback has increased, especially where we leverage AI for document review and research.” (RP -03)

This suggests that service quality is recognized and valued by clients.

The findings show strong agreement, with 56.8% agreeing and 22.7% strongly agreed that legal technology tools have enhanced communication and transparency with clients. Only 6.8% disagreed and 11.4% were neutral. The mean score of 3.91 and a low standard deviation of 0.910 indicate broad consensus on the positive impact of technology in fostering transparency and client engagement. Regarding the interview insights highlighted:

“Digital platforms allow clients to track case progress in real-time. ...transparency has improved trust and reduced misunderstandings between clients and lawyers.” (RP -06)

These statements emphasize that technology plays a crucial role in communication and accountability.

Lastly, regarding the statement that we receive positive feedback from clients regarding our tech-enabled services, responses indicate strong positive reception, with 59.1% agreeing and 15.9% strongly agreeing. Only 9.1% disagreed and 15.9% were neutral. The mean score of 3.80 with a standard deviation of 0.878 confirms consistent recognition of technology-enabled service improvements. From the interviews, the responses supported this and one partner said that:

“Clients are increasingly appreciative of online consultations, document sharing, and tracking tools,” remarked a partner. ...tech adoption has enhanced client confidence in our services, particularly in terms of speed and accessibility.” (RP -07)

These findings suggest that technology adoption has a measurable impact on client satisfaction.

4.5 Inferential Statistics

Inferential statistics were instrumental in examining the relationships between the study objectives and in evaluating the predictive impact of the independent variables on the dependent variable. This was accomplished through the use of correlation and regression analyses

4.5.1 Correlation Analysis

The relationship between automation, legal practice management software, artificial intelligence, and the productivity of law firms was examined using Pearson correlation analysis in SPSS version 23. The results are presented in Tables below.

Table 4.6: The relationship between Automation and Productivity

		Automation	Productivity
Automation	Pearson Correlation	1	.574**
	Sig. (2-tailed)		.000
	N	44	44
Productivity	Pearson Correlation	.574**	1
	Sig. (2-tailed)	.000	
	N	44	44
**. Correlation is significant at the 0.01 level (2-tailed).			

From Table 4.6, it was revealed that automation demonstrated a strong and significant positive relationship with the productivity of law firms ($r = .574^{**}$, $P < 0.01$). This indicates that the implementation of automation within law firms is closely linked to increased productivity. Overall, the results suggest that enhancing automation processes is likely to positively influence the productivity of law firms.

Table 4.7: The relationship between Legal Practice Management Software and Productivity

		Legal Practice Management Software	Productivity
Legal Practice Management Software	Pearson Correlation	1	.411 ^{**}
	Sig. (2-tailed)		.006
	N	44	44
Productivity	Pearson Correlation	.411 ^{**}	1
	Sig. (2-tailed)	.006	
	N	44	44
**. Correlation is significant at the 0.01 level (2-tailed).			

From Table 4.7, it was revealed that legal practice management software showed a moderate and significant positive relationship with the productivity of law firms ($r = .411^{**}$, $P < 0.01$). This indicates that the use of legal practice management software is associated with improvements in law firm productivity. Overall, these results suggest that adopting and effectively utilizing legal practice management software can positively influence the efficiency and output of law firm operations.

Table 4.8: The relationship between Artificial Intelligence and Productivity

		Artificial Intelligence	Productivity
Artificial Intelligence	Pearson Correlation	1	.606 ^{**}
	Sig. (2-tailed)		.000
	N	44	44
Productivity	Pearson Correlation	.606 ^{**}	1

	Sig. (2-tailed)	.000	
	N	44	44
**. Correlation is significant at the 0.01 level (2-tailed).			

From Table 4.8, it was revealed that artificial intelligence showed a strong and significant positive relationship with the productivity of law firms ($r = .606^{**}$, $P < 0.01$). This indicates that the adoption of artificial intelligence technologies is closely associated with higher productivity levels in law firms. These results suggest that integrating artificial intelligence into law firm operations can positively enhance efficiency and output.

4.5.2 Regression Analysis

The research study considered regression analysis to determine the effect of automation, legal practice management software and artificial intelligence on the productivity of law firms

Table 4.9: Predictability Potential of Automation on Productivity

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta (β)		
(Constant)	1.184	.522		2.270	.028
Automation	.608	.134	.574	4.538	.000
Model Summary					
R Square	.329				
Adjusted R Square	.313				
ANOVA ^b					
F	20.590				
Sig. (P)	.000 ^a				

Source: Field data, 2025

From the results, it was revealed that automation significantly predicted the productivity of law firms, with an adjusted R^2 of 0.313. This indicates that approximately 31.3% of the variance in

productivity is explained by automation. The overall model was statistically significant, as indicated by an F-statistic of 20.590 and a p-value of 0.000, which is below the conventional significance level. Furthermore, the regression coefficients show that automation is a significant predictor of productivity. Specifically, the standardized Beta coefficient is 0.574, supported by a t-value of 4.538 and a p-value of 0.000. This implies that for every one-unit increase in automation, productivity in law firms increases by 0.574. Given these significant results, the study rejects the null hypothesis that automation has no significant effect on productivity in law firms. This was rejected in favour of alternative hypothesis that states that automation has significant effect on productivity in law firms

Table 4.10: Predictability Potential of Legal Practice Management Software on Productivity

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta (β)		
(Constant)	2.039	.516		3.955	.000
Legal Practice Management Software	.376	.129	.411	2.923	.006
Model Summary					
R Square	.169				
Adjusted R Square	.149				
ANOVA ^b					
F	8.543				
Sig. (P)	.006 ^a				

Source: Field data, 2025

From the results, it was revealed that legal practice management software significantly predicted the productivity of law firms, with an adjusted R² of 0.149. This indicates that approximately

14.9% of the variance in productivity is explained by the use of legal practice management software. The overall model was statistically significant, as indicated by an F-statistic of 8.543 and a p-value of 0.006, which is below the conventional significance level. Furthermore, the regression coefficients show that legal practice management software is a significant predictor of productivity. Specifically, the standardized Beta coefficient is 0.411, supported by a t-value of 2.923 and a p-value of 0.006. This implies that for every one-unit increase in the effective use of legal practice management software, productivity in law firms increases by 0.411. Given these significant results, the study rejects the null hypothesis that legal practice management software has no significant effect on productivity in law firms. This was rejected in favour of alternative hypothesis that states that legal practice management software has significant effect on productivity in law firms.

Table 4.11: Predictability potential of Artificial Intelligence on Productivity

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta (β)		
(Constant)	1.392	.439		3.170	.003
Artificial Intelligence	.594	.120	.606	4.938	.000
Model Summary					
R Square	.367				
Adjusted R Square	.352				
ANOVA ^b					
F	24.385				
Sig. (P)	.000 ^a				

Source: Field data, 2025

From the results, it was revealed that artificial intelligence significantly predicted the productivity of law firms, with an adjusted R² of 0.352. This indicates that approximately 35.2%

of the variance in productivity is explained by the adoption of artificial intelligence. The overall model was statistically significant, as indicated by an F-statistic of 24.385 and a p-value of 0.000, which is below the conventional significance level. Furthermore, the regression coefficients show that artificial intelligence is a significant predictor of productivity. Specifically, the standardized Beta coefficient is 0.606, supported by a t-value of 4.938 and a p-value of 0.000. This implies that for every one-unit increase in the use of artificial intelligence, productivity in law firms increases by 0.606. Given these significant results, the study rejects the null hypothesis that artificial intelligence has no significant effect on productivity in law firms. This was rejected in favour of alternative hypothesis that states that artificial intelligence has significant effect on productivity in law firms.

CHAPTER FIVE

SUMMARY, DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary and discussion of the study's findings, followed by the conclusion and recommendations. The results are structured according to the study objectives, which involved examining the effect of automation on productivity in law firms in Kampala Uganda, assessing the effect of legal practice management software on productivity in law firms in Kampala Uganda and investigating the effect of artificial intelligence on productivity in law firms in Kampala Uganda

5.2 Summary of the study findings

The findings revealed that automation demonstrated a strong and significant positive relationship with the productivity of law firms ($r = .574^{**}$, $P < 0.01$). Then from the regression, it was revealed that automation significantly predicted the productivity of law firms by 31.3% (Adjusted $R^2 = 0.313$). Given these significant results, the study rejects the null hypothesis that automation has no significant effect on productivity in law firms. This was rejected in favour of alternative hypothesis that states that automation has significant effect on productivity in law firms.

Additionally, it was revealed that legal practice management software showed a moderate and significant positive relationship with the productivity of law firms ($r = .411^{**}$, $P < 0.01$). The regression analysis, it was revealed that legal practice management software significantly predicted the productivity of law firms, by 14.9% (Adjusted $R^2 = 0.149$). Given these significant results, the study rejects the null hypothesis that legal practice management software has no significant effect on productivity in law firms. This was rejected in favour of alternative hypothesis that states that legal practice management software has significant effect on productivity in law firms.

Lastly, it was revealed that artificial intelligence showed a strong and significant positive relationship with the productivity of law firms ($r = .606^{**}$, $P < 0.01$). The regression analysis,

revealed that artificial intelligence significantly predicted the productivity of law firms by 35.2% (Adjusted $R^2 = 0.352$). Given these significant results, the study rejects the null hypothesis that artificial intelligence has no significant effect on productivity in law firms. This was rejected in favour of alternative hypothesis that states that artificial intelligence has significant effect on productivity in law firms.

5.3 Discussion of the study findings

5.3.1 Automation and productivity in law firms in Kampala Uganda

The findings of the study revealed that automation plays a critical role in enhancing the productivity of law firms by streamlining core legal processes. Automated tools reduce the time required for document review, facilitate the rapid and accurate retrieval of relevant case law, and improve precision in identifying critical clauses. By minimizing manual workloads, simplifying the drafting of standard legal documents, and optimizing legal data analysis, automation allows lawyers and support staff to allocate more time to higher-value tasks, thereby increasing overall operational efficiency. This outcome underscores that the integration of automation into legal practice is a key determinant of improved productivity and organizational performance.

These results are consistent with the existing literature on legal automation. Dwivedi et al. (2021) and Zalnieriute et al. (2019) highlight that automation effectively performs routine, time-intensive tasks, freeing lawyers to focus on complex, judgment-intensive work. Armour and Sako (2020) similarly argue that AI-powered automation enables law firms to break down legal tasks, streamline workflows, and reduce costs. Empirical studies further support this view; Korey and David (2024) demonstrated that document automation could reduce document creation time from hours to minutes while achieving higher accuracy, and Casepoint (2025) found that AI-driven analytics cut document review time by up to 90 percent compared to manual methods. These findings collectively confirm that automation significantly enhances the speed, accuracy, and efficiency of legal processes.

Moreover, the study aligns with literature emphasizing the broader benefits of workflow automation in legal practice. Trovve (2024) and Bolt Data Legal (2025) note that automating document management, case tracking, and internal communications reduces bottlenecks,

enhances team collaboration, and ensures timely access to relevant information. Tools such as Clio Manage exemplify how automated systems centralize communications and case files, minimizing the risk of missed deadlines and improving administrative efficiency. These workflow improvements, coupled with real-time analytics and metric-driven insights, allow law firms to monitor performance continuously, optimize operations, and deliver higher-quality client services. Hence, the current study reinforces the consensus that automation is a transformative force in legal productivity, corroborating both theoretical and empirical evidence in the field.

5.3.2 Legal practice management software and productivity in law firms in Kampala Uganda

The findings of the study revealed that legal practice management software plays a pivotal role in enhancing the productivity of law firms by streamlining case management and internal operations. The software enables efficient tracking of ongoing and closed cases, easy retrieval of case files and associated documents, and reduces reliance on manual paperwork. Additionally, LPMS improves workflow through timely notifications, alerts, and internal communication tools while ensuring secure data storage and proper maintenance of billing histories. These functionalities collectively enhance organizational efficiency and support law firms in delivering timely and effective legal services, highlighting that the adoption of LPMS is a significant driver of operational performance in modern legal practice.

These findings align closely with existing literature that underscores the productivity benefits of LPMS. The American Bar Association TechReport (2022) notes that firms adopting LPMS experience reduced administrative overhead and improved allocation of attorney hours to substantive legal work. Platforms such as MyCase, Clio Manage, and PracticePanther integrate client intake, document management, calendar tracking, and billing into a unified system, minimizing manual data entry and errors while increasing workflow efficiency (LawCrossing, 2025). Empirical studies also support these benefits; for example, Pilun-owad (2013) found that automating case workflows and standardizing data entry via LPMS significantly improved employee productivity and job satisfaction in a small Thai law firm, while broader surveys report faster matter resolution and improved client satisfaction in firms using LPMS (American Bar

Association TechReport, 2022). These findings suggest that LPMS adoption enables law firms to optimize administrative and operational processes, freeing staff to focus on high-value legal tasks.

However much, the study's results resonate with literature noting potential challenges in realizing the full productivity potential of LPMS. Resistance to change, often due to attorneys' familiarity with existing workflows, can limit effective use of the software, while integration issues with legacy systems may necessitate manual workarounds, reducing anticipated efficiency gains (Selectifyr, 2024). Smaller firms may also face budgetary constraints related to licensing and staff training. These adoption barriers underscore that while LPMS has a clear positive impact on law firm productivity, maximizing these benefits requires strong change management, technical support, and executive buy-in to ensure comprehensive and effective use of the software's functionalities.

5.3.3 Artificial intelligence and productivity in law firms in Kampala Uganda

The findings of the study revealed that artificial intelligence significantly enhances the productivity of law firms by enabling faster and more accurate processing of large volumes of legal data. AI-powered analytics support the identification of trends and patterns in legal cases, facilitate real-time monitoring of key performance indicators, and streamline legal research by reducing the time spent reviewing case law. By automating routine, labor-intensive tasks, AI allows lawyers to reallocate their efforts toward higher-value strategic and client-facing activities. These results underscore that integrating AI tools into legal practice not only optimizes operational efficiency but also positions law firms to deliver more timely, data-driven, and high-quality services.

These findings are consistent with prior research demonstrating the transformative impact of AI in legal operations. Couture (2023) and the Financial Times (2024) observed that AI deployments in high-volume litigation tasks drastically reduce task completion times, enabling attorneys to focus on complex analysis. Similarly, Whitehouse et al. (2025) found that large language models outperformed human reviewers in both accuracy and speed, illustrating substantial reductions in review time and costs. Reports from the Thomson Reuters Institute

(2024) and Law and World (2024) further highlight AI's effectiveness in legal research, showing that AI tools can significantly reduce time spent reviewing case law, thereby allowing attorneys to concentrate on strategic decision-making. Collectively, these studies reinforce the current finding that AI substantially augments productivity in law firms by accelerating processes and improving accuracy.

While the productivity benefits are clear, the literature also notes potential challenges that contextualize the study's results. Ethical and data-privacy concerns, as highlighted by Bogosh and Weil (2024), require robust governance frameworks to ensure reliability and mitigate bias in AI outputs. Additionally, initial costs of AI deployment and disparities in access, particularly for smaller firms or underrepresented groups, can limit equitable adoption (Reuters, 2024; Couture, 2023). Despite these constraints, empirical evidence from firms such as V500 Systems and PNC Bank demonstrates that AI-driven document analysis and predictive analytics substantially improve efficiency, accuracy, and decision-making in legal operations (Shahrestani, 2024). Therefore, the current study not only aligns with previous scholarship regarding AI's capacity to enhance productivity but also emphasizes the need for strategic implementation, ethical oversight, and equitable access to fully realize these benefits across the legal sector.

5.4 Conclusions

The first objective intended to examine the effect of automation on productivity in law firms with a hypothesis testing if automation has no significant effect on productivity in law firms. The study concluded that automation significantly enhances the productivity of law firms by streamlining critical legal processes. Automated tools reduce the time required for document review, facilitate rapid and accurate retrieval of relevant case law, and improve the precision of identifying pertinent clauses. By minimizing manual workloads, simplifying the drafting of standard legal documents, and optimizing the analysis of legal data, automation enables law firms to operate more efficiently and effectively. This highlight that integrating automation into legal practice is a key driver of improved productivity and operational performance. Therefore, the study hypothesis automation has no significant effect on productivity in law firms was rejected.

The second objective examined the effect of legal practice management software on productivity in law firms with a hypothesis testing if legal practice management software has no significant effect on productivity in law firms. It was concluded that legal practice management software plays a significant role in enhancing the productivity of law firms by streamlining case management and internal operations. The software facilitates efficient tracking of ongoing and closed cases, easy retrieval of case files and documents, and reduces the reliance on manual paperwork. It also improves workflow through timely notifications, alerts, and internal communication tools, while ensuring secure data storage and proper maintenance of billing history. The findings indicate that adopting legal practice management software strengthens organizational efficiency and supports law firms in delivering more effective and timely legal services. Therefore, the study hypothesis that legal practice management software has no significant effect on productivity in law firms was rejected.

Lastly, the study examined the effect of artificial intelligence on productivity in law firms with a hypothesis testing if artificial intelligence has no significant effect on productivity in law firms. The study concluded that artificial intelligence significantly enhances the productivity of law firms by enabling faster and more accurate processing of large volumes of legal data. AI-powered analytics support the identification of trends and patterns in legal cases, facilitate real-time monitoring of key performance indicators, and streamline legal research by reducing the time spent reviewing case law. This means the integration of AI tools improves the efficiency and effectiveness of legal research and case management, positioning law firms to deliver higher-quality services in a timely and data-driven manner. Therefore, the study hypothesis that artificial intelligence has no significant effect on productivity in law firms was rejected.

5.5 Contribution to knowledge

This study makes a substantial contribution to the existing body of knowledge by providing empirical evidence on the role of technological innovations specifically automation, legal practice management software, and artificial intelligence in enhancing productivity within law firms. The main purpose of the study was to examine the effect of these digital tools on productivity, and the findings have expanded theoretical and practical understanding of how technology-driven transformation improves operational efficiency in the legal sector.

Firstly, the study contributes to knowledge by demonstrating that automation is not merely a convenience but a strategic tool that significantly improves law firm productivity by streamlining legal processes such as document review, drafting, and case law retrieval. This evidence strengthens existing theories linking digital transformation to organizational performance, particularly within knowledge-intensive and service-oriented professions like law.

Secondly, by establishing that legal practice management software enhances internal coordination, case tracking, and workflow management, the study adds new insights into how integrated management systems can optimize the operational structure of professional service firms. This finding bridges a knowledge gap in legal technology literature, which has traditionally focused on administrative benefits rather than productivity outcomes.

Lastly, the study advances academic and practical discourse by empirically confirming that artificial intelligence significantly boosts productivity through intelligent data processing, predictive analytics, and efficient legal research. This contribution underscores the transformative potential of AI in professional practice and extends the understanding of how data-driven tools can support evidence-based decision-making in law firms.

5.6 Implications for theory

The findings of this study strongly align with the assumptions of the Technology Acceptance Model confirming its applicability in explaining technology adoption and utilization within the legal profession. According to TAM, users' acceptance of technology is primarily influenced by Perceived Usefulness and Perceived Ease of Use two constructs that directly affect their attitudes and behavioral intentions toward technology adoption. The study's results demonstrated that automation, legal practice management software, and artificial intelligence significantly enhance the productivity of law firms, implying that legal practitioners perceive these technologies as both useful and easy to use in improving their work performance.

The positive relationship between automation and productivity supports TAM's assumption that when users perceive a technology as useful meaning it improves efficiency, accuracy, and performance they are more likely to adopt and integrate it into their work processes. The findings

that automation streamlines document review, simplifies drafting, and reduces manual workloads confirm the Perceived Usefulness dimension of TAM. This indicates that the motivation to use automation tools in law firms arises from their tangible benefits in enhancing operational efficiency and reducing effort.

Similarly, the study's results on legal practice management software affirm the Perceived Ease of Use aspect of TAM. The software's ability to simplify case tracking, facilitate document retrieval, and automate internal workflows demonstrates that technologies that are user-friendly and intuitive are more readily accepted by legal professionals. This finding reinforces TAM's proposition that technologies perceived as less complex encourage higher user acceptance, which in turn translates into improved productivity outcomes.

Furthermore, the significant effect of artificial intelligence on productivity aligns with TAM's extended perspective under TAM2 and TAM3, which emphasize how enhanced perceptions of usefulness and ease of use can shape behavioral intentions and sustained technology utilization. The ability of AI to process large volumes of legal data, identify case patterns, and support real-time decision-making demonstrates a strong alignment with TAM's theoretical framework, particularly its prediction that perceived technological advantages directly influence user engagement and task performance.

5.7 Implications for policy and practice

The findings of this study carry important implications for both policymakers and practitioners in the legal sector, highlighting that legal technology is a critical determinant of productivity, efficiency, and competitiveness in law firms. The evidence demonstrates that automation, legal practice management software, and artificial intelligence collectively transform how legal work is executed reducing manual workloads, streamlining case management, improving data accuracy, and enhancing service delivery. Therefore, policymakers and law firm leaders must recognize that strengthening technological adoption in the legal industry is not optional but essential for driving sustainable productivity and growth.

From a policy perspective, the study emphasizes the need for the development of national frameworks and regulatory guidelines that promote and support the integration of technology in legal practice. Governments and professional bodies such as the Law Council and Uganda Law Society should prioritize the digital transformation of legal services through policies that encourage technology-driven innovation, data protection, and cybersecurity in law firms. Additionally, establishing incentives such as tax benefits or grants for firms that adopt automation and AI tools could accelerate the modernization of legal practice and enhance the overall competitiveness of the justice sector. Moreover, incorporating digital literacy and legal technology training into professional development programs for lawyers would ensure that practitioners are equipped with the skills necessary to effectively use these tools.

From a practical standpoint, the study suggests that law firm managers and practitioners should embrace and invest in robust legal technologies to improve operational efficiency and service quality. Automation tools can reduce time spent on repetitive tasks; legal practice management software can enhance coordination, document handling, and client communication; and AI can provide data-driven insights that strengthen decision-making and case outcomes. Without such technologies, law firms risk inefficiency, slower case resolution, and reduced client satisfaction ultimately diminishing their competitiveness in an increasingly digital and fast-paced legal environment.

Furthermore, strengthening legal technology systems can have far-reaching effects beyond the law firm level. Improved productivity within legal practices contributes to faster dispute resolution, greater access to justice, and a more efficient business environment all of which stimulates economic growth and attracts investment. Policymakers should, therefore, view the digital transformation of legal services as a cornerstone for national development, as it enhances institutional efficiency, promotes transparency, and supports the delivery of timely and high-quality legal services.

5.8 Recommendations

The study put forward the following recommendations;

Law firms should invest in and integrate advanced automation tools to streamline document review, legal research, and drafting processes. This will reduce manual workloads, enhance accuracy, and improve overall productivity, allowing legal practitioners to focus on more strategic and complex tasks.

The study revealed that legal practice management software facilitates efficient tracking of ongoing and closed cases, easy retrieval of case files and documents, and reduces the reliance on manual paperwork. Therefore, firms are encouraged to adopt robust legal practice management software to optimize case management, internal communications, and workflow efficiency. Proper utilization of such systems can enhance timely tracking of cases, secure document storage, and efficient billing processes, thereby strengthening organizational performance.

The study revealed that AI-powered tools analyze large volumes of legal data, identify trends, and monitor key performance indicators in real time. Therefore, organizations should incorporate AI-powered tools in data analysis which will enhance legal research efficiency, improve case strategy formulation, and enable law firms to provide more accurate, timely, and high-quality legal services.

5.6 Areas for further research

The study suggests the following areas of study;

- i) The effect of cloud-based legal technologies on collaboration and productivity in law firms in Uganda
- ii) The impact of legal technology adoption on client satisfaction and service delivery in Law Firms.
- iii) The challenges and barriers to legal technology implementation in Small and Medium Law Firms in Uganda

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APPENDICES

Appendix I: Consent form for participants

Dear respondent

I'm Rebecca Nakiranda, a student at Uganda Management Institute as part of the requirements for the award of a Master's Degree in Business Administration". I am undertaking a study on the topic, "*Legal technology and Productivity of Law Firms in Kampala City Uganda*" As one of the key stakeholders in this study, you are hereby requested to participate in the study. Please feel free to participate, its only for academic study. Your views will be used for this purpose, considered confidential and with utmost privacy.

Aspect of concern	Description
Type of study	This is an academic and non-profit or funded study
Objectives	The study will explore: i. To examine the effect of automation on productivity in the law firms in Kampala-Uganda ii. To assess the effect of legal practice management software on productivity in the law firms in Kampala-Uganda iii. To ascertain the effect of artificial intelligence on productivity in the law firms in Kampala-Uganda
Your roles and expectations	As a participant, you will be expected to provide truthful information. You will not be asked to pay or be paid for providing information
Your privacy, confidentiality	Your identity, personal details and information will be held private and confidential and will not be used anywhere against you.
Limitations in handling and providing data	Your participation will only remain in the field. You are under no other obligation for data management thereafter.
Withdrawal terms	You are free to withdraw your participation at any time of the study as long as you feel the study is not providing conducive atmosphere of your stay or under any other circumstance.

If you agree with above, please append your names, signature and day-time contact telephone for which you shall be contacted further to participate in the study".

Participants' Name..... Signature.....

Mobile Telephone:.....

Researcher's Name:Signature.....

Mobile Telephone:.....

Appendix II: Questionnaire for Data Collection

Dear Respondent,

I'm Rebecca Nakiranda, a student at Uganda Management Institute as part of the requirements for the award of a Master's Degree in Business Administration. I am undertaking a study on the topic, "***Legal technology and Productivity of Law Firms in Kampala City Uganda***" As one of the key stakeholders in this study, you are hereby requested to participate in the study. Please fill or respond with in this questionnaire for the appropriate answers you consider right. Your responses will be treated with lot of confidentiality and used only for academic purposes.

Section A: Bio-data

Please put a tick mark (✓) in the option boxes provided or fill in the spaces provided.

1. Name of the Law Firm:.....

2. Sex

i) Male ☐

ii) Female ☐

3. Age of respondent

i) 18-27 ☐ ii) 28-37 ☐ iii) 38-47 ☐ iv) 48-57 ☐ v) 58 and Above ☐

4. Respondent's highest level of education

i) Certificate ☐ ii) Diploma ☐ iii) Bachelor's Degree ☐

iv) Master's Degree ☐ v) Others (please specify):

5. For how many years have you been working with this law firm?

i) Less than 1 ☐ ii) 1-3 ☐ iii) 4-6 ☐ iv) 7-9 ☐ iv) 10 and above ☐

For questions in Section B, please respond to the statements given below basing on the ranking scale.

1: Strongly Disagree (SD), 2: Disagree (D), 3: Neutral (N), 4: Agree (A) 5: Strongly Agree (SA).

SECTION B: Automation in Law Firms

Code	Item	Scale				
		SD	D	N	A	SA
	Document Review					
B1	Automated tools help in reducing the time taken to review legal documents.					
B2	Automation ensures higher accuracy in identifying relevant clauses.					
B3	I rely on automation to detect inconsistencies and errors in documents.					
B4	Automation has minimized the manual workload involved in document review.					
B5	Automated document review tools have improved overall productivity.					
	Document Drafting					
B6	Automation simplifies the drafting of standard legal documents.					
B7	I use templates generated by automation tools to speed up document preparation.					
B8	Automated drafting tools help reduce errors in legal documents.					
B9	Drafting automation enhances consistency in legal document formatting.					
B10	Automation allows me to focus on higher-value legal tasks during drafting.					
	Legal Research Analysis					
B11	Automated research tools help me quickly find relevant case law.					
B12	I find automated legal databases more efficient in analysing legal data than manual research.					
B13	Automation improves the accuracy of legal research outcomes.					

For questions in Section C, please respond to the statements given below basing on the ranking scale.

1: Strongly Disagree (SD), 2: Disagree (D), 3: Neutral (N), 4: Agree (A) 5: Strongly Agree (SA).

SECTION C: Legal Practice Management Software

Code	Item	Scale				
		SD	D	N	A	SA
	Case Management & Data Storage					
C1	The software allows easy tracking of ongoing and closed cases.					
C2	I can easily retrieve case files and related documents through the software.					
C3	The software provides secure data storage.					
C4	It is easy to manage case records using the software.					
C5	The system reduces paperwork and manual file handling in case management.					
	Communication					
C6	The software facilitates effective communication among legal team members.					
C7	I receive timely notifications and alerts for appointments and deadlines.					
C8	Clients can be easily contacted through the software.					
C9	The system supports internal messaging or collaboration tools.					
C10	Communication through the software improves workflow efficiency.					
	Billing					
C11	The software simplifies the billing process for clients.					
C12	I can easily generate accurate invoices from the system.					
C13	The software tracks billable hours effectively.					
C14	Billing history are well-maintained.					
C15	The billing features of the software help reduce billing errors.					

For questions in Section D, please respond to the statements given below basing on the ranking scale.

1: Strongly Disagree (SD), 2: Disagree (D), 3: Neutral (N), 4: Agree (A) 5: Strongly Agree (SA).

SECTION D: Artificial Intelligence in Law Firms

Code	Item	Scale				
		SD	D	N	A	SA
	Data Analytics					
D1	AI-powered analytics help identify trends and patterns in legal cases.					
D2	AI tools assist in processing large volumes of legal data quickly and accurately.					
D3	Data-driven insights from AI improve strategic decision-making in the firm.					
C4	AI enhances our ability to monitor key performance indicators.					
C5	AI supports real-time analysis of client and case data.					
	Legal Research Tools					
D6	AI-powered legal research tools reduce time spent case law review.					
D7	AI accurately retrieves relevant statutes and case precedents.					
D8	The use of AI tools enhances the quality of legal arguments.					
D9	AI improves the efficiency of legal research tasks.					
	Predictive Analytics					
D10	AI provides reliable predictions on case outcomes based on past rulings.					
D11	Predictive analytics support better risk assessment in legal strategies.					
D12	AI enhances forecasting of litigation timelines and resource allocation.					
D13	AI tools assist in identifying potential legal issues before they arise.					
D14	Predictive AI improves legal decision-making.					

For questions in Section E, please respond to the statements given below basing on the ranking scale.

1: Strongly Disagree (SD), 2: Disagree (D), 3: Neutral (N), 4: Agree (A) 5: Strongly Agree (SA)”.

SECTION E: Productivity in Law Firms

Code	Item	Scale				
		SD	D	N	A	SA
	Output Quality					
E1	Legal services provided meet high professional standards.					
E2	Legal documents produced are always accurate					
E3	Legal documents produced are in time					
E4	Legal documents produced are well-structured.					
	Case Time Cycle					
E5	Our law firm has reduced the average time taken to complete a case.					
E6	Legal technology tools have helped minimize case backlog in our firm.					
E7	Most cases are closed within the client’s expected timeline.					
	Number of Cases Handled					
E8	Our law firm handles more cases now due to the adoption of legal technology.					
E9	The number of cases completed monthly has increased over the past year.					
E10	Legal technology has improved our ability to manage multiple cases simultaneously.					
	Client Satisfaction					
E11	Clients express satisfaction with the speed and quality of our services.					
E12	Legal technology tools have enhanced communication and transparency with clients.					
E13	We receive positive feedback from clients regarding our tech-enabled services.					

END

THANK YOU

Appendix III: Interview Guide

Section A: Background Information

- 1) Can you briefly describe your role in the law firm?
- 2) How long has your firm been in operation?
- 3) How many lawyers and support staff does your firm currently employ?
- 4) What types of clients or cases does your firm primarily handle?

Section B: To examine the effect of automation on productivity

- 1) What types of automated systems or tools are currently in use in your firm (e.g., time tracking, document automation, workflow systems)?
- 2) In your view, how has automation impacted the efficiency of legal work in your firm?
- 3) What changes have you observed in task turnaround time since adopting automated tools?
- 4) Have there been any challenges in implementing or using automation tools?
- 5) In what ways do you think automation has affected the workload of legal staff?

Section C: To assess the effect of legal practice management software on productivity

- 1) Is your firm currently using any legal practice management software (e.g., Clio, MyCase, LEAP)?
- 2) How does this software assist in case management, billing, communication, or document storage?
- 3) How has the use of practice management software influenced your firm's overall workflow and productivity?
- 4) What benefits and drawbacks have you experienced with the use of such software?
- 5) How do clients perceive the use of digital tools in managing their cases?

Section D: To ascertain the effect of artificial intelligence on productivity

- 1) Is your firm currently using or exploring AI tools (e.g., for legal research, predictive analytics, contract review)?
- 2) How has AI impacted legal research, case analysis, or decision-making in your firm?

- 3) Do you think AI tools have improved accuracy, speed, or outcomes in legal tasks?
- 4) What are your views on the reliability and ethical concerns related to using AI in legal practice?
- 5) In what ways do you foresee AI shaping the future of your firm's productivity?

Section E: Productivity

- 1) In your opinion, which legal technology has had the most significant impact on productivity in your firm, and why?
- 2) How do you rate the productivity of your law firm?

END

Appendix III: Table for Determining Sample Size

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
<i>Note: N is Population Size; S is Sample Size</i>					<i>Source: Krejcie & Morgan, 1970</i>				

Krejcie, R. V. and Morgan D. W. (1970). Determining sample size for Research Activities:
Educational and Psychological Measurement.

Rebecca Nakiranda

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RESEARCH ETHICS COMMITTEE (UMI REC)

05/08/2025

To: Rebecca Nakiranda

0

Type: Initial Review



Re: UMIREC-2025-988: LEGAL TECH AND PRODUCTIVITY OF LAW FIRMS IN KAMPALA: A CASE OF SELECTED LAW FIRMS

I am pleased to inform you that the Uganda Management Institute (UMI) REC, through expedited review held on **05/08/2025** approved the above referenced study.

Approval of the research is for the period of **05/08/2025** to **05/08/2026**.

As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and addenda to the protocol or the consent form must be submitted to the REC for re-review and approval **prior** to the activation of the changes.
3. Reports of unanticipated problems involving risks to participants or any new information which could change the risk benefit: ratio must be submitted to the REC.
4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by participants and/or witnesses should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits.
5. Continuing review application must be submitted to the REC **eight weeks** prior to the expiration date of **05/08/2026** in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study.
6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. You are required to register the research protocol with the Uganda National Council for Science and Technology (UNCST) for final clearance to undertake the study in Uganda.

The following is the list of all documents approved in this application by Uganda Management Institute (UMI) REC:



No.	Document Title	Language	Version Number	Version Date
1	Budget	English	pdf	2025-08-04
2	Research Dissemination Plan	English	pdf	2025-08-04
3	Risk Management Plan	English	pdf	2025-08-04
4	Letter from Head of department	English	pdf	2025-08-04
5	Work plan	English	pdf	2025-08-04
6	Data collection tools	English	pdf	2025-08-04
7	Informed Consent forms	English	pdf	2025-08-04
8	CVs of the investigators	English	pdf	2025-08-04
9	Community Engagement plan	English	pdf	2025-08-04
10	Protocol	English	pdf	2025-08-04

Yours Sincerely



Prof. Will Kaberuka

For: Uganda Management Institute (UMI) REC

