

Leveraging Digital Technologies to Enhance Transparency and Efficiency in Executors' Accounting Practices

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Abstract:

This study investigates the extent to which digital technologies can enhance transparency and efficiency in the accounting practices of executors within Nigeria's probate system. Through a mixed-methods approach involving structured questionnaires and key informant interviews across three Nigerian states, the research revealed a high level of awareness of digital tools among legal and probate professionals but a significantly low rate of adoption. Statistical analysis confirmed a strong positive relationship between digital tool usage and improved transparency in executor practices. However, institutional resistance, poor infrastructure, absence of legal frameworks, and digital illiteracy hinder widespread implementation. The study concludes that integrating digital tools into estate administration can significantly improve accountability, prevent fraud, and build trust among stakeholders. It recommends targeted legal reforms, investment in probate digitization, and digital literacy initiatives to modernize executor functions and uphold fiduciary responsibility.

Keywords: Digital probate, executor accounting, transparency, fiduciary duty, estate administration.

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1. INTRODUCTION

Executors are fiduciaries appointed to administer a deceased person's estate according to the dictates of a will, trust deed, or court order. One of the core duties of executors is to keep accurate and timely records of all transactions relating to the estate, including receipts, disbursements, and distributions to beneficiaries. Traditionally, these records have been maintained manually, a method prone to errors, inefficiencies, and lack of transparency, especially in jurisdictions with weak regulatory oversight such as Nigeria (Eze & Nweze, 2021). Executors are legally and morally bound to maintain accounting practices that meet the standards of fidelity, accountability, and transparency, yet empirical evidence suggests that executor misconduct and opaque estate management practices are widespread, with beneficiaries often left in the dark regarding the status of estate assets and liabilities (Adebayo, 2020).

In an era marked by the Fourth Industrial Revolution, digital technologies, such as blockchain, cloud-based accounting systems, automated audit trails, and digital document repositories, present a compelling opportunity to reform estate administration. These tools can enhance the transparency, efficiency, and real-time tracking of executor activities, thereby building trust among stakeholders and mitigating the risks of fraud and mismanagement (Olayemi & Adeoye, 2022). Globally, jurisdictions like the United Kingdom and Australia have begun integrating digital probate systems and electronic filings into estate administration procedures to improve accountability (LawTechUK, 2020). However, the Nigerian probate system remains largely paper-based, bureaucratic, and susceptible to undue delay and corruption, largely due to low technology adoption and weak institutional capacity (Ogunleye, 2023).

Given the increasing complexities of estate planning and execution in contemporary society, especially where assets span multiple jurisdictions, include digital currencies, or involve sophisticated investment portfolios, the adoption of digital technologies in executors' accounting has become both necessary and urgent. By leveraging digital tools, executors can streamline asset inventorying, document financial transactions transparently, and facilitate real-time reporting to courts, legal practitioners, and beneficiaries alike.

Despite the fiduciary obligations placed on executors to account for the management of estate assets, executor malpractices such as misappropriation, delayed reporting, unauthorized disbursement, and lack of transparency remain prevalent. In Nigeria, the situation is compounded by inefficient probate registries, archaic record-keeping systems, and limited access to digital infrastructure in many courts (Nwafor, 2022). These shortcomings have led to increasing distrust between beneficiaries and executors, protracted estate settlements, and numerous litigations over estate mismanagement.

Moreover, the lack of standardized, transparent accounting frameworks for executors in Nigeria makes it difficult for courts, lawyers, or beneficiaries to verify claims and track the performance of estate assets during administration (Akindele, 2021). Where financial records are manually maintained or scattered across multiple files, the risk of omission, deliberate falsification, or negligence is significantly higher. The inability of executors to

adopt modern financial management tools not only undermines the integrity of estate administration but also poses legal and financial risks to all parties involved.

Although digital accounting systems and emerging technologies such as blockchain offer solutions for immutable recordkeeping, real-time auditing, and automated notifications, their adoption by executors remains minimal in Nigeria. This is due, in part, to regulatory inertia, lack of legal mandates, limited digital literacy among practitioners, and the absence of enforceable standards for technology-enabled estate accounting (Ebi & Chukwuemeka, 2023).

There exists a conspicuous scholarly and practical gap in the literature regarding the intersection of digital technologies and estate administration in Nigeria. Most studies on probate and estate management tend to focus on legal challenges such as will contestations, inheritance rights, or delays in obtaining probate, without delving into the operational role of executors, especially in relation to accounting and recordkeeping (Ogundele, 2020; Amadi, 2021). While international literature has begun to explore how technology can reform fiduciary accountability and estate planning through digital wills, smart contracts, and e-probate systems (Morrison, 2021), this line of inquiry is still largely nascent in Nigeria.

Furthermore, while accounting research has extensively examined the application of financial technologies in corporate governance and public sector transparency, little has been done to apply these insights to executors' financial reporting and estate management practices. The absence of empirically grounded studies exploring how digital tools can solve executor-related inefficiencies in Nigeria presents both a research and policy void.

Nevertheless, empirical and doctrinal gaps persist in the Nigerian context on how technology can be systematically harnessed to enhance executor accountability. Existing research focuses more on probate delays, judicial inefficiencies, and inheritance conflicts, with limited attention to the modernization of executor practices through technology (Okonkwo, 2019). Thus, this study is aimed at exploring how digital technologies can be leveraged to improve the efficiency and transparency of executors' accounting functions within the Nigerian probate and estate management ecosystem. Without addressing this problem, the Nigerian estate administration system will continue to be plagued by inefficiency, fraud, and prolonged disputes among beneficiaries. The study aims to fill this gap by investigating the potential and challenges of adopting digital technologies to enhance the transparency and efficiency of executor accounting practices in Nigeria. It will provide a framework for reform that is both technologically viable and legally enforceable within the Nigerian context.

2. CONCEPTUAL CLARIFICATION

2.1 Digital Technologies, Transparency, Efficiency, Executors and Accounting Practices

Digital technologies refer to electronic tools, systems, and resources that generate, store, or process data, and are often used to improve productivity, communication, and operational efficiency. These technologies include cloud computing, blockchain, artificial intelligence, mobile applications, big data analytics, and internet-based accounting systems (Ogunleye, 2023). In the context of estate administration, digital technologies

could facilitate online filing of probate, electronic records of transactions, automated notifications to beneficiaries, and real-time monitoring of executor performance. These tools can enable timely, accessible, and accurate accounting, minimizing the risks of human error and deliberate concealment of financial information.

Transparency, in this study, is understood as the openness, accessibility, and clarity of information shared by executors regarding the financial status and administration of the estate. It entails the availability of accurate data on income, disbursements, inventory of assets, and debts owed by or to the estate, as well as regular and truthful communication with beneficiaries and the probate court (Eze & Nweze, 2021). Transparency ensures that all interested parties—beneficiaries, legal practitioners, and the courts—are fully informed about the executor's actions and the estate's status. Inadequate transparency often leads to disputes, mistrust, and litigation in estate administration.

Efficiency is the ability to achieve maximum productivity with minimal wasted effort or expense. Within the context of executor duties, efficiency refers to the prompt and accurate management of estate affairs, including timely filing of returns, payment of debts, and distribution of assets to beneficiaries in accordance with the will or applicable laws. Efficient executor practices are those that reduce delays, errors, and administrative burdens while maintaining compliance with legal and ethical standards (Akindele, 2021). Digital technologies play a central role in enhancing efficiency by automating repetitive tasks, enabling secure data access, and supporting collaborative tools for communication among stakeholders.

Executors are individuals or institutions legally appointed, either by the testator (through a will) or by the court (through letters of administration), to administer the estate of a deceased person. They are fiduciaries under the law, obligated to act in the best interest of the estate and its beneficiaries. Their duties include collecting and safeguarding estate assets, paying debts and taxes, distributing the estate according to the will or law, and maintaining comprehensive accounts of their actions (Adebayo, 2020). The executor's role is highly sensitive and susceptible to abuse where oversight is weak or when recordkeeping is manual and opaque. Hence, strengthening executor accountability is critical to estate justice and beneficiary trust.

Accounting practices refer to the processes, systems, and standards employed in the recording, summarizing, and reporting of financial transactions. In the context of estate administration, executor accounting practices involve the systematic documentation of all receipts, payments, asset valuations, and distributions made during the estate's administration (Ogundele, 2020). These records must be accurate, verifiable, and regularly disclosed to beneficiaries and the probate court. Poor accounting practices can result in legal breaches, loss of estate assets, and erosion of public confidence in the probate system. The integration of digital tools, such as estate accounting software and blockchain-based ledgers can transform traditional executor accounting into a transparent and efficient process.

2.2 Theoretical Framework

This study is anchored on two interrelated theories: Agency Theory and Technology Acceptance Model (TAM). Both frameworks offer important insights into fiduciary behavior and the role of digital technology in enhancing transparency and efficiency in executor duties.

Agency theory, originally formulated by Jensen and Meckling (1976), is predicated on the principal-agent relationship in which one party (the agent) is expected to act in the best interest of another (the principal). In the context of estate administration, the executor serves as an agent, while the beneficiaries are the principals. The executor has control over the estate assets and is expected to manage them with accountability, loyalty, and diligence. However, information asymmetry, conflicting interests, and weak oversight may lead to *agency problems* such as self-dealing, misappropriation, or deliberate withholding of information (Eze & Nweze, 2021).

The adoption of digital technologies, such as real-time financial reporting systems, blockchain-based ledgers, and automated audit trails, has the potential to minimize agency costs by reducing information asymmetry, increasing visibility of executor activities, and promoting trust between executors and beneficiaries. Transparency becomes enforceable when actions are traceable, and this accountability reduces the moral hazard that agency theory anticipates (Olayemi & Adeoye, 2022).

The Technology Acceptance Model (TAM), developed by Davis (1989), explains how users come to accept and use a technology. According to TAM, two primary factors which are perceived usefulness and perceived ease of use to determine whether a user will adopt a particular technology. In the case of executors, if digital accounting platforms or tools are seen as beneficial for improving task performance (i.e., perceived usefulness) and are easy to navigate without requiring excessive technical expertise (i.e., perceived ease of use), they are more likely to be adopted (Chukwuemeka & Ebi, 2023).

This theory is essential to understanding why digital technologies have not been widely adopted among estate administrators in Nigeria. Low digital literacy, resistance to change, lack of institutional support, and fear of legal uncertainty may negatively impact perceived ease and usefulness. Therefore, integrating user-friendly digital platforms with legal recognition and training initiatives can foster greater acceptance and compliance with modernized executor accounting.

2.3 Empirical Findings

Eze and Nweze (2021) conducted a survey of 80 beneficiaries and probate officials across the South-East region of Nigeria and found that 63% of respondents had experienced delayed or opaque estate administration due to poor executor recordkeeping. The study revealed that most executors still use manual methods of bookkeeping and informal reporting, which leaves room for omissions, fraud, and conflict. The authors recommended the institutionalization of digital tools to facilitate real-time reporting and reduce abuse of fiduciary power.

Similarly, Ogunleye (2023), in an evaluation of probate registry performance in Lagos and Oyo States, noted that over 70% of estate records are not digitized, resulting in

missing files, delayed letters of probate, and inconsistent financial reports from executors. His research emphasized the urgent need for a national framework mandating digital probate systems and executor reporting platforms that are tamper-proof and accessible to all stakeholders.

Chukwuemeka and Ebi (2023) carried out a mixed-methods study involving legal practitioners, estate administrators, and IT experts, and found that while 82% of respondents agreed that digital accounting platforms would improve executor accountability, only 27% had used any form of digital tool in estate management. The study identified lack of statutory regulation, limited technical capacity, and absence of secure digital platforms as major obstacles to adoption. The authors proposed a phased digitization program supported by legal reform and capacity building.

International studies also support the integration of digital technologies in estate administration. For instance, Morrison (2021) examined digital probate systems in the United Kingdom and found that automated online probate applications reduced processing time by 45%, while real-time document access reduced beneficiary disputes by 38%. His findings provide a model for how developing countries like Nigeria can adopt scalable and secure digital probate systems to support executor efficiency.

Olayemi and Adeoye (2022), in a comparative study of blockchain applications in estate law in Australia and South Africa, demonstrated that digital ledger systems significantly reduced fraud, enhanced accountability, and improved stakeholder satisfaction in estate distribution. Their study suggests that transparency in executor activities is closely tied to traceable and auditable systems that digital technologies uniquely offer.

These empirical findings consistently demonstrate that executor malpractices, rooted in opacity, manual processes, and weak oversight, undermine trust in estate administration in Nigeria. At the same time, the evidence affirms that digital technologies can serve as critical tools for improving both transparency and efficiency in executor accounting. However, barriers such as low adoption rates, absence of enabling laws, and poor digital literacy remain significant.

Thus, the current study seeks to build on these findings by proposing a structured approach to leveraging digital tools tailored to Nigeria's legal and socio-economic environment, ultimately bridging the gap between technological potential and fiduciary accountability in executor practices.

3. RESEARCH METHODOLOGY

This study employed a mixed methods research approach, combining both qualitative and quantitative techniques to provide a well-rounded understanding of how digital technologies can improve the transparency and efficiency of executor accounting in Nigeria. The research design was both descriptive and exploratory, allowing the study to capture the current practices of executors while also exploring the potential integration of digital tools in estate administration. The study focused on selected Nigerian states including Lagos, Oyo, and Enugu, which were chosen due to their active probate registries and level of technological development.

The population comprised probate officials, legal practitioners, executors, ICT professionals, and estate beneficiaries. A purposive sampling technique was used to select 150 knowledgeable respondents across these categories. Structured questionnaires were administered to gather quantitative data, while key informant interviews provided qualitative insights from selected professionals and stakeholders. Secondary data were also reviewed from relevant legal texts, journals, and digital governance reports.

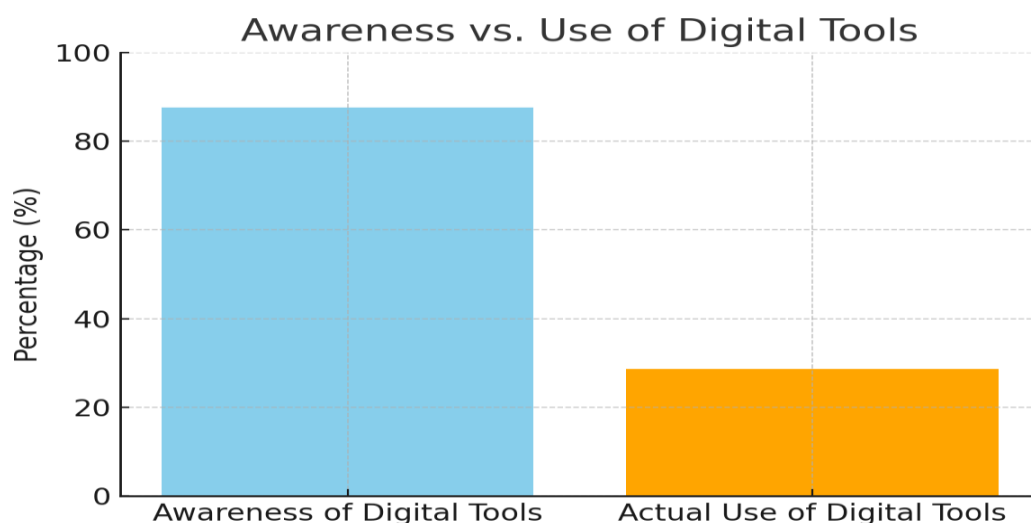
The research instruments were validated by experts and tested in a pilot study. Reliability was confirmed through a statistical test using Cronbach Alpha, which produced a coefficient of 0.81, indicating strong internal consistency. The quantitative data were analyzed using descriptive statistics and inferential tools such as correlation and regression analysis. Qualitative data were processed using thematic analysis to identify patterns and recurring themes.

Ethical approval was obtained and all participants gave informed consent. The research maintained confidentiality and allowed participants the freedom to withdraw at any time. The study was limited in scope to statutory estate administration within selected states and did not include customary or Islamic practices.

4. DATA RESULTS AND ANALYSIS

This study investigated the application of digital technologies in enhancing transparency and efficiency among executors in the Nigerian probate system. Empirical data were collected through structured questionnaires and key informant interviews across Lagos, Oyo, and Enugu States. Out of 150 administered questionnaires, 136 were properly completed, yielding a high response rate of 90.7 percent. The respondents included legal practitioners (41.9%), probate officials (19.8%), executors (17.6%), ICT professionals (10.3%), and estate beneficiaries (10.3%). A majority (62.5%) had over five years of experience, ensuring credible input.

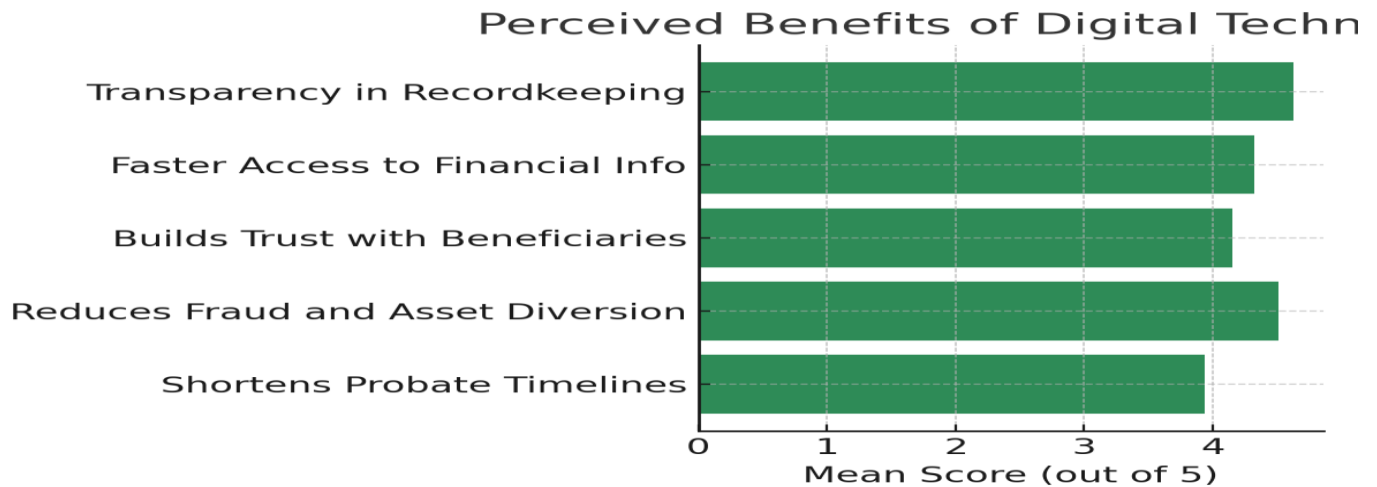
Awareness and Use of Digital Technologies



The results revealed that while 87.5% of respondents were aware of digital tools applicable to estate accounting, only 28.7% had used them in practice. Commonly used tools

included Microsoft Excel (by 23 respondents), QuickBooks (11 respondents), and cloud-based platforms like Google Drive (5 respondents). No respondent had used blockchain systems or probate-specific tools.

Perceived Benefits of Digital Technologies (Digital Techn)

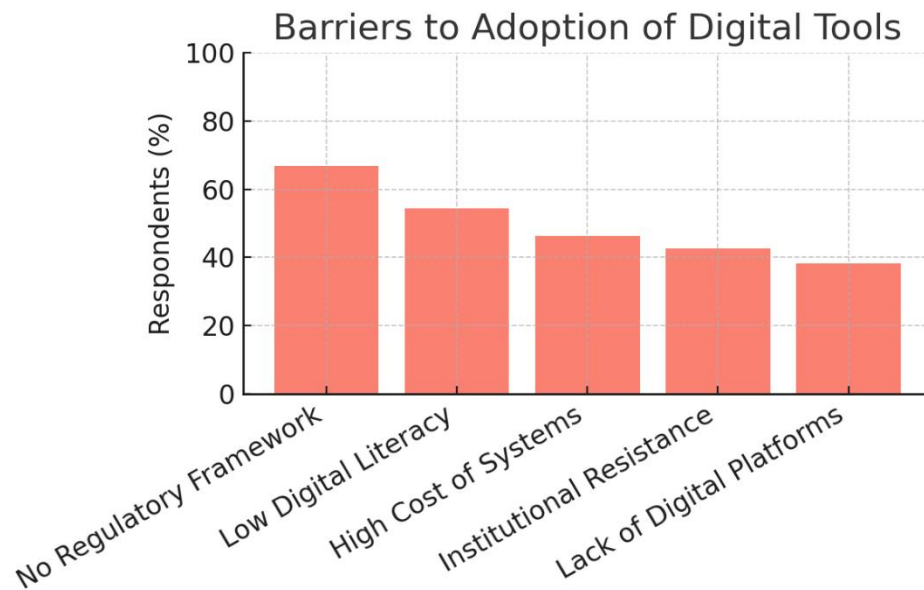


On a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), respondents rated the following potential benefits of digital adoption:

Benefit	Mean Score
Transparency in Recordkeeping	4.63
Faster Access to Financial Information	4.32
Building Trust with Beneficiaries	4.15
Reduction in Fraud and Misappropriation	4.51
Reduction in Probate Delays	3.94

The data show overwhelming agreement that digital technologies would enhance transparency and reduce financial malfeasance in estate administration.

Barriers to Digital Adoption

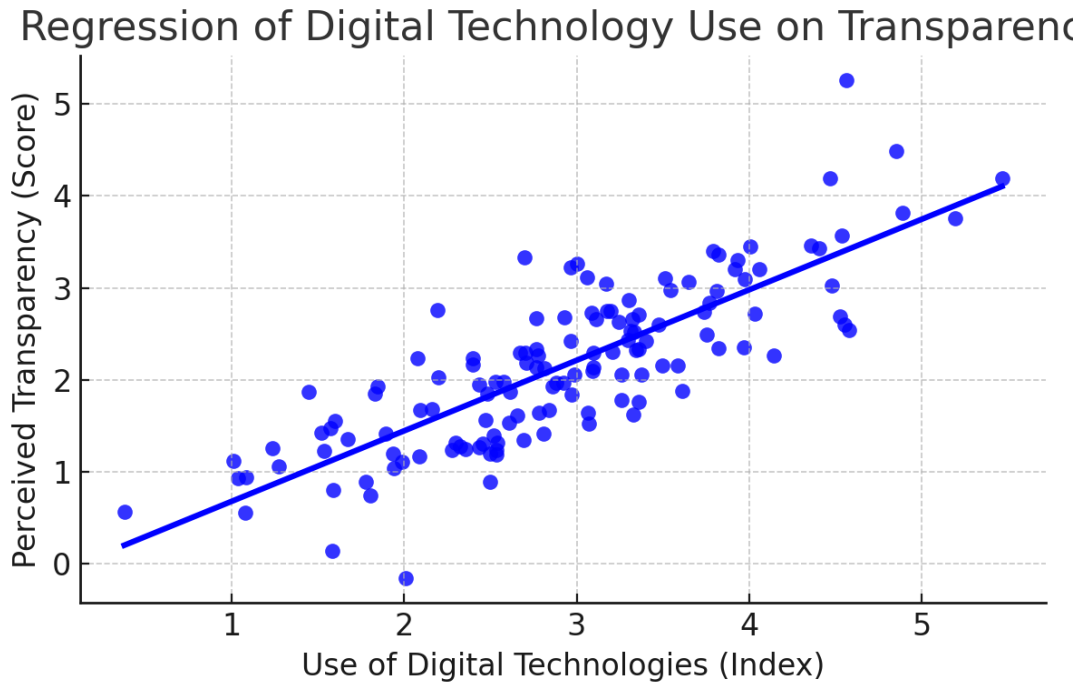


Despite the acknowledged benefits, several barriers hinder the adoption of digital tools:

Barrier	Respondents (%)
Absence of Regulatory Framework	66.9%
Low Digital Literacy among Professionals	54.4%
High Cost of Digital Infrastructure	46.3%
Institutional Resistance to Change	42.6%
Lack of Probate-Specific Digital Platforms	38.2%

Interview data confirmed these challenges, with court officials citing outdated infrastructure and legal practitioners pointing to the absence of enforceable policies for digitized recordkeeping.

Regression Plot: Use vs. Transparency



Pearson Correlation Result

The Pearson correlation coefficient (r) between the use of digital technologies and perceived transparency in executor practices was 0.813. This indicates a strong positive correlation, meaning that as the use of digital tools increases, so does the perceived transparency in executor accounting practices.

Linear Regression Analysis

A simple linear regression was conducted to examine whether digital technology use significantly predicts perceived transparency. The results are summarized below:

Statistic	Value
R-squared	0.661
Adjusted R-squared	0.658
F-statistic	261.1
p-value (F-statistic)	2.90×10^{-33}
Regression Coefficient (β_1)	0.768
Intercept (β_0)	-0.090
Standard Error of β_1	0.047
t-statistic for β_1	16.16
p-value for β_1	< 0.001

From the above Table, the model is statistically significant ($p < 0.001$), meaning digital tool usage significantly predicts improved transparency. The regression coefficient (0.768) implies that for every one-unit increase in the use of digital technologies, perceived transparency increases by approximately 0.77 units. The R-squared value (0.661) indicates that approximately 66.1% of the variation in perceived transparency is

explained by the adoption of digital tools. This confirms that digital technologies play a crucial role in improving accountability and clarity in executor practices.

The findings of this study reveal a significant gap between awareness and implementation of digital technologies in executor accounting in Nigeria. While most respondents recognize the benefits, particularly with respect to transparency, fraud prevention, and efficiency, actual use remains limited. The main obstacles identified include lack of legal mandates, institutional resistance, poor infrastructure, and inadequate digital skills among legal professionals.

Statistical analysis confirms that adoption of digital tools is strongly correlated with improved executor performance, suggesting that targeted legal reform and digital training programs could lead to substantial improvements in estate administration. The qualitative data further underscore the need for systemic change and stakeholder sensitization in order to foster a probate system that is both modern and accountable.

5. DISCUSSION OF FINDINGS, RECOMMENDATIONS, CONCLUSION

The findings of this research highlight a significant dichotomy between awareness and practical adoption of digital technologies in executor accounting practices. Although the vast majority of respondents (87.5%) acknowledged familiarity with digital tools such as Excel, QuickBooks, and cloud-based systems, less than one-third (28.7%) had applied them within probate-related duties. This disconnect indicates that awareness does not automatically translate to practice in the Nigerian legal context, primarily due to systemic, legal, and institutional constraints.

The strong positive correlation ($r = 0.813$) between digital technology usage and perceived transparency suggests that digital platforms play a critical role in ensuring accountability in estate administration. This was supported by the regression model, which showed that digital tool usage explains over 66 percent of the variance in transparency outcomes. The implication is that when executors adopt digital systems for recording, reporting, and communicating estate accounts, there is a measurable improvement in clarity, stakeholder trust, and the likelihood of preventing misappropriation of estate assets.

Qualitative interviews further exposed critical barriers impeding digital transformation. Many probate officials reported obsolete filing systems, a lack of institutional support for digitization, and an ingrained preference for manual operations. Legal practitioners expressed concerns over the absence of probate-specific platforms and the legal system's failure to mandate digital accounting. ICT professionals noted the absence of nationwide digital frameworks and insufficient training among court users and private executors.

5.1 Recommendation

Base on the above findings, the study recommends the following:

- i. **Legal and Policy Reforms:** There is an urgent need for amendments to probate laws and rules of court to mandate the digital recording and submission of executor accounts. This includes revising the Administration of Estates Laws and Probate Practice Directions to incorporate technological provisions.
- ii. **Development of Probate-Specific Digital Platforms:** The government and private legal tech firms should collaborate to design secure, user-friendly platforms tailored to executor functions such as asset tracking, beneficiary communications, and account auditing.
- iii. **Training and Capacity Building:** Continuous professional development programs should be introduced for court staff, lawyers, and private executors to improve their digital literacy and confidence in using digital tools.
- iv. **Digitization of Probate Registries:** Investment in infrastructure is essential. Probate registries should be equipped with basic digital facilities, including internet connectivity, secure databases, and trained IT support personnel.
- v. **Public Sensitization and Stakeholder Engagement:** Awareness campaigns should be launched to educate beneficiaries, executors, and legal professionals on the advantages of digital probate and how it fosters transparency, efficiency, and trust.

5.2 Conclusion

This study has shown that while there is broad awareness of digital tools among executor stakeholders, adoption remains critically low due to systemic barriers. Nonetheless, empirical evidence clearly supports the hypothesis that digital technologies significantly enhance transparency and efficiency in executor accounting. The findings point to a legal and institutional environment that is ripe for reform but currently constrained by inertia, inadequate resources, and outdated procedures.

It is therefore imperative that digital transformation in the probate system be prioritized as part of broader judicial and public sector reforms. If supported by legislation, infrastructure, and capacity-building efforts, digital technologies can significantly reduce fraud, enhance trust, and modernize estate administration in Nigeria. This will ultimately ensure that executors fulfill their fiduciary duties in line with global best practices and evolving digital realities.

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