Nigerian Journal of Operations Research (NIJOR)

https://nijor.org.ng/
pISSN: 2141-7938
eISSN: 3156-5956

Electronic Tracking and Documentation Systems for Postgraduate Thesis and Dissertation Defence Processes in Nigerian Universities: A Systematic Review of Related Studies from 2020-2026

Timothy Moses[1*], Saratu Haruna[2], Jeofferey Ovre Agushaka[3], Muhammed Mukhtar Liman[4], Torkuma Agber[5]

[1,3,4] Department of Computer Science, Faculty of Computing, Federal University of Lafia, Nasarawa State - Nigeria

[2, 5] Information and Communication Technology Unit, Federal University of Lafia, Nasarawa State – Nigeria.

ARTICLE INFO

Article history:
Received 18 July, 2026
Revised 28 August 2026
Accepted 9 September 2026
Available online 24 September 2026

Keywords: Electronic Tracking System, Documentation System, Postgraduate defence processes, Digital documentation, Processes of thesis defence, Postgraduate Research Management

ABSTRACT

The increasing number of postgraduate students in Nigeria and the processes involved in postgraduate defence necessitated the need for this study. The purpose of this study, therefore, is to investigate the current status of Electronic Tracking and Documentation Systems in Nigerian universities for the conduct of postgraduate thesis and dissertation defense processes with special focus on literature published between 2020 - 2026. The review draws on 136 papers from three major databases with detailed analysis of the 24 most relevant papers. They show the tremendous potential benefits of the implementation of ETDS and how far Nigeria's higher education institutions are from the reality. The use of a web-based thesis management system provides significant benefits such as improved quality control, better archival management, better communication, and improved workflow, but there are significant challenges to the use of such a system in Nigerian universities. Significant observations from the study showed resistance to change and a lack of a robust portal that handles defence processes from the entry stage to the exit stage in Nigerian universities. The review highlighted lessons to be learned from comparable successful practices in developing countries like Ghana, India, Indonesia, and Serbia.

1. Introduction

The Administration of postgraduate thesis and dissertation defense processes is a critical administrative function in universities all over the world. These processes have been traditionally manual and paper-based and involve multiple stakeholders such as students, supervisors, examiners, departmental coordinators, and registry officials, which causes inefficiencies, delays, and documentation problems (Abdul-Salaam, 2024). Higher education institutions around the world are becoming digital and need to manage complex workflows in the context of Electronic Tracking and Documentation Systems (ETDS) (Narasaiah, 2021; Leite *et al.*, 2023).

[*] *Corresponding author.*
E-mail address: moses.timothy@science.fulafia.edu.ng (T.M)
https://doi.org/10.67868/nijor/0303.027

The demand for ETDS is especially strong in Nigeria. The Nigerian education sector is plagued with specific problems such as high enrolment of students in universities, inadequate administrative support, inadequate infrastructure, and the growing expectations for transparency and accountability in universities' academic processes (Babatola *et al.*, 2025; Jude *et al.*, 2025). Manual systems were made even more vulnerable during the COVID-19 pandemic, and discussions on the digitalisation of academic administration were further advanced (Ogunode, 2025). Although its advantages are now better understood, the adoption of ETDS in Nigerian tertiary institutions has not been widespread.

This systematic review is a response to a gap in the literature and presents a synthesis of evidence about ETDS for the postgraduate thesis and dissertation defense process specifically in the context of a Nigerian university. It discusses system architectures, implementation frameworks, benefits, challenges, and lessons learned from similar contexts in developing countries, gleaned from the literature, to draw inferences for the modernization of postgraduate research management processes in Nigeria.

1.1 Research Objectives

This systematic review aims to:

1. Assess the current state of ETDS adoption in Nigerian universities for managing postgraduate thesis and dissertation defense processes
2. Identify technical architectures, features, and functionalities of existing ETDS implementations
3. Evaluate the benefits and outcomes associated with ETDS adoption
4. Analyze barriers and challenges specific to the Nigerian higher education context
5. Synthesize implementation frameworks and best practices from successful deployments
6. Provide evidence-based recommendations for Nigerian universities considering ETDS adoption

2. Methodology

2.1 Search Strategy

A comprehensive literature search was conducted across three major databases: Google Scholar, Scopus, and IEEE Xplore, while other literatures were gotten from other sources. The keywords used in the search strategy include electronic tracking system, digital documentation, processes of thesis defence, postgraduate research management, and Nigerian universities. The literature published from 2020 to 2026 was used to display the latest advancements in the field, which is a rapidly evolving area of research.

2.2 Study Selection

In the search, 245 papers were retrieved, 109 duplicate records were removed, and 136 papers were drawn for the study (Figure 1). These papers were then scored for relevance using a multi-criteria relevance scoring algorithm for a specific research topic. The top 24 papers were chosen for a detailed analysis given their relevance to ETDS, the process of thesis defense, the Nigerian or similar developing country context, and e-governance in higher education. Papers were assessed for methodological rigor, relevance to the research questions, and contribution to understanding ETDS in the Nigerian or comparable contexts.

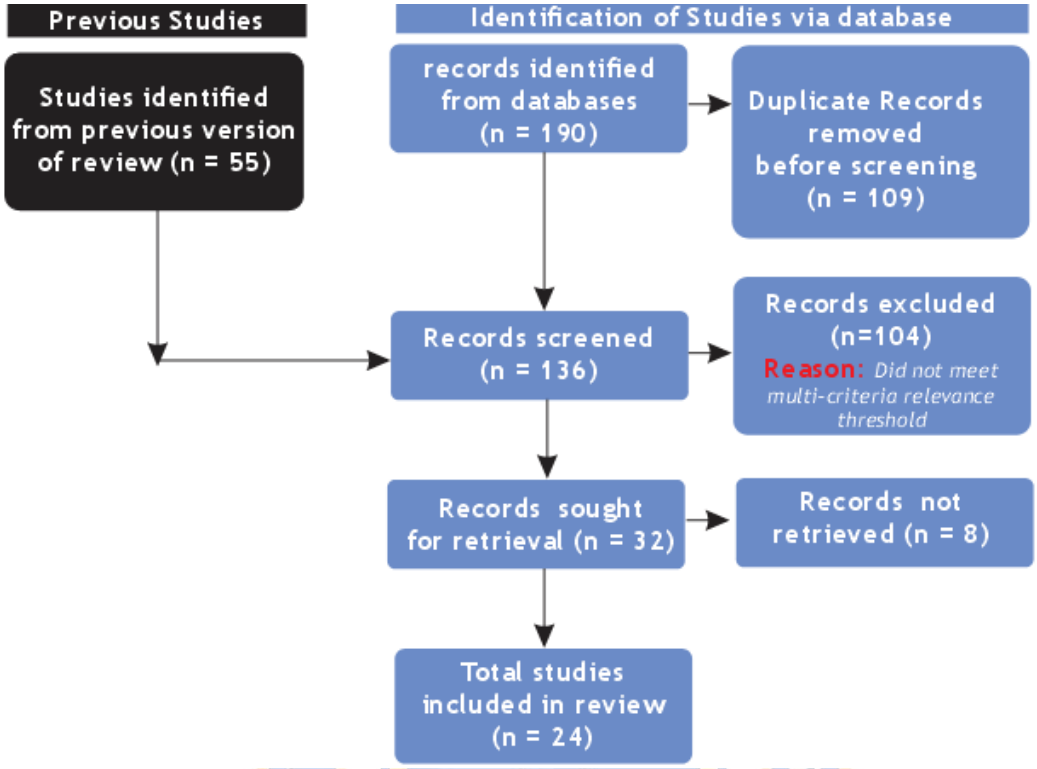


Figure 1: ***PRISMA 2020 Flow Diagram of the Literature Search and Study Selection Process***

The paper selection in this study follows a multi-criteria relevance scoring algorithm shown in Eq. (1). Each paper was assigned a numerical score (0 – 5) based on topic relevance, context relevance, process/workflow relevance, methodological quality, and publication recency. The threshold for each paper is $\boldsymbol{R \geq 70}$

$$R(paper_i) = \sum_{n=1}^{m} (w_n S_{in}) \qquad (1)$$

Where

$R(paper_i) = total\ relevance\ of\ each\ paper$
$w_n = weight\ assigned\ to\ each\ criterion\ of\ paper\ reviewed$
$S_{in} = score\ of\ each\ paper\ for\ each\ criterion\ considered$
$m = number\ of\ selection\ criteria$

The weight w_n satisfy:

$$\sum_{n=1}^{m}(w_n = 1) \qquad 0 \leq w_n \leq 1 \text{ with a 0 – 5 scoring scale}$$

Assume Table 1 gives the weight of each $paper_{(i)}$

Table 1: Weight assigned to each paper criterion with their corresponding scores

Criterion	Weight	Score
Topic relevance	0.35	4
Context relevance	0.20	2
Process/Workflow of paper	0.15	1
Methodological quality	0.25	3
Publication recency	0.05	0

From Eq. (1), the relevance score becomes:

$$R(paper_i) = \sum_{n=1}^{m}(w_n S_{in}) = 0.35x4 + 0.20x2 + 0.15x1 + 0.25x3 + 0.05x0 = 2.7$$

From the result:

$$0 \leq R(paper_i) \leq 5$$

We convert it to a percentage:

$$R\%(paper_i) = \frac{R(paper_i)}{5} x\ 100 = \frac{2.7}{5} x100 = 54\%$$

The selection rule says paper must meet 70% threshold for acceptability:

$$R\%(paper_i) \geq 70$$

2.3 Data Extraction and Synthesis

For each of the 24 selected papers, data were extracted on: study design and methodology, key findings and outcomes, challenges and limitations, system features and architectures, implementation strategies, and contextual factors. These data were then synthesized thematically to find patterns, convergences, divergences, and gaps in the literature.

3. Background and Theoretical Foundations

Usually, the postgraduate thesis and dissertation defense process has several concurrent and parallel workflows: submission and approval of thesis proposal, ethics clearance, progress monitoring, thesis draft submission, plagiarism checking, appointment of examiners and informing them about the defence, scheduling of the defense, viva voce exam, tracking of revisions, final submission of the thesis and archiving (Lando & Wambua, 2025; Macrohon, 2021). Cooperation between various stakeholders is needed for each stage, and significant documentation is created, which has to be coordinated, stored, and retrieved efficiently (Zhelezov, 2020).

The integrated information system aimed to digitalize, automate, and streamline the complete life cycle of thesis and dissertation control is referred to as ETDS in this study. This life cycle involves an online submission portal, automatic workflow routing, automatic status tracking, document version control, integration with plagiarism detection software, a system of examiner management, defense scheduling, digital archiving, and reporting dashboards (Osaze, 2025; Kayode *et al.*, 2020). More advanced systems may be able to add elements such as automatic notifications, mobile accessibility, institutional repository support, decision support analytics, and others (Adetoro *et al.*, 2020; Schöpfel and Boock, 2024).

Digital transformation in universities in developing countries is different from that of developed countries in that it is beset by different challenges, such as limited resources, lack of skills,

and resistance to change (Yidana and Akunna, 2025; Constantino *et al.*, 2020). The successes in Ghana, India, the Republic of Indonesia, and Serbia, however, show that these can be addressed through contextually relevant solutions (Al-khafaji *et. al.*, 2020; Nursiyanto *et. al.*, 2020; Loan, 2020)

4. Current State of ETDS in Nigerian Universities

The literature showcases that the use of ETDS in Nigerian Universities is still low, and major universities are still using manual and paper-based systems to handle the post-graduate thesis and dissertation process in universities (Abdul-Salaam, 2024; Babatola, 2025). Abdul-Salaam (2024) identified inefficiencies, inconsistencies, and communication gaps as the hallmarks of manual thesis management processes in colleges of education in Nigeria. In the same vein, studies have revealed that there are some challenges with the digital documentation infrastructure as well as policy frameworks in Nigerian public universities (Muhammad *et al.*, 2021).

Though the overall uptake is low, there are signs of increasing awareness and pilot projects. The need for digital transformation in academic administration is increasingly being acknowledged by university administrators in Nigeria (Jude *et al.*, 2025; Kamale and Asaju, 2025). Some institutions like Ahmadu Bello University Zaria and Federal University Dutsin-Ma have the capacity to implement an electronic registration system; however, these have not yet been fully extended to thesis management (Jude *et al.*, 2025).

Another, but separate, trend is electronic theses and dissertations as archives. The performance evaluation of ETD initiatives in Nigeria conducted by Adetoro *et al.* (2020) revealed that although some universities have digital repositories for the finished theses, the use of these digital repositories for archiving usually does not encompass the entire ETD process. The study revealed shortcomings in the quality of the metadata, preservation initiatives, and in the integration of metadata with the broader institutional processes.

Policy issues and gaps in governance have been cited as barriers to the adoption of ETDS. Both records management (RM) related digital policy and awareness of the ISO standard for Nigerian universities were found to be low in Nigerian universities (Muhammad *et al.*, 2021). This policy void raises a question as to data security, privacy of the data, illegality of electronic documents, and obligations for long-term preservation.

Another major issue that every ETDS should take note of is Zero Trust that must be incorporated into the system. The reason is that students, staff, and external examiners manage and access resources from different locations. A student should only be able to access his/her work without any possibility to know the progress or workflow of the other students. Hence, there should be a model that estimates the unauthorized-operation blocked rate. Eq. (2) can be deployed to solve this challenge.

$$Unauthorized - operation\ blocking\ rate = \frac{Unauthorized\ operation\ correctly\ blocked}{Unauthorized\ operation\ tested}\ x\ 100\% \qquad (2)$$

5. System Architectures and Technical Approaches in Existing Studies

The most common method of architectural solution found in the literature is web-based thesis management systems, which can be accessed by regular web browsers (Abdul-Salaam, 2024; Macrohon *et al.*, 2021). Abdul-Salaam (2024) work for the Nigerian colleges of education is a web-based architecture that will maximize accessibility to the colleges with minimal technical requirements on the client machine. The major elements of the architecture are: central database servers, Web application servers, user authentication and authorization, document storage and retrieval, and reporting engines.

In advanced ETDS implementations, documents and tasks are automatically routed through workflows defined by business rules (Narasaiah *et al*., 2021; Lando and Wambua, 2025). Macrohon *et al*. (2021) system for Mapua University is an example of automated routing of research proposals across multiple review stages with automatic notifications to relevant stakeholders. The system is real-time and includes student, supervisor, and administrator dashboards (Macrohon *et al*., 2021). Other systems report workflow automation properties, such as those in Ghana (Leite *et al*., 2023), India (Narasaiah *et al.*, 2021), and Thailand (Punsiri and Wararatchai, 2024).

Complementary institutional systems include: plagiarism detection software (Turnitin, iThenticate) (Narasaiah *et al*., 2021; Adetoro, *et al.*, 2020), institutional repositories (DSpace, Shodhganga) (Narasaiah *et al*., 2021; Adetoro, *et al.*, 2020, Loan, 2020), learning management systems (Lando and Wambua, 2025), student information systems (Jude *et al*., 2025) and library management systems (Madibi, 2021) in comprehensive ETDS implementations. Narasaiah *et al*. (2021) have done an instance study of Jawaharlal Nehru University, which showcases how the thesis tracking system is integrated with anti-plagiarism software and the national repository, Shodhganga.

There is a growing interest in the field of thesis management, which involves the use of artificial intelligence and advanced analytics, as reported by Ahunna and Obiakor (2025). Some of the possible applications are: automated assessment of thesis drafts, intelligent examiner matching by expertise profiles, predictive analysis to identify at-risk students, and NLP for extracting thesis metadata (Ahunna and Obiakor, 2025). In Nigeria, however, these high-end features are still in the conceptual stage, limited by technical capacity and resource availability.

6. Benefits and Outcomes of ETDS Implementation

There are several studies that report efficiencies from ETDS implementation. Leite *et al*. (2023) reported in their pilot study of a thesis management system at the University of Ghana that the system was found to help reduce the time used to process the thesis, the entry of the same information, and real-time visibility into the status of the thesis. Both students and supervisors found that the system enabled the thesis process to be "more fluent and effortless". In a similar manner, Macrohon *et al.* (2021) from Mapua University automated proposal routing and notifications to reduce the average proposal review time.

Automated notifications, centralized messaging, and document and status sharing among stakeholders are all other benefits of implementing ETDS (Abdl-Salaam, 2024; Leite *et al*., 2021; Macrohon *et al*., 2021). Abdul-Salaam (2024) found that improved communication was one of the most significant advantages, with systems offering transparency in terms of submission deadlines, review status, and next steps. This transparency helps minimize student uncertainty and anxiety, as well as student supervision and administration oversight (Leite *et al.*, 2021).

ETDS can facilitate uniformity of application of quality criteria and institutional policies (Abdul-Salaam, 2024; Narasaiah *et al*., 2021; Adetoro *et al*., 2020). Systematic originality checking can be integrated with plagiarism detection software (Narasaiah *et al*., 2021; Adetoro *et al*., 2020). Standardized templates and validation rules ensure the formatting and completeness of the information (Macrohon *et al*., 2021). All actions and decisions are recorded in audit trails, which facilitate accountability and dispute resolution (Constantino *et al*., 2020).

ETDS implementations will offer a repository for thesis-related documents and metadata with a structure and the ability to be searched (Narasaiah *et al*., 2021; Adetoro *et al*., 2020; Loan, 2020). This helps to preserve the data for a longer period of time, meet institutional reporting requirements, and perform research analytics (Adetoro *et al*., 2020; Loan, 2020). Adetoro *et al.* (2020), in their evaluation of Nigerian ETD projects, stated that if ETDs were well implemented, the digital repositories would greatly enhance the discoverability and accessibility of research outputs.

ETDS can support remote and hybrid defence underscored during the COVID-19 pandemic (Ogunode, 2025; Lando and Wambua, 2025). ETDS implementations will enable students to upload documents and supervisors to give feedback, and defense committees to evaluate without being present with the student. This is particularly useful when the application is geographically distributed (Lando and Wambua, 2025).

Some research has cited that modern digital systems can help improve the reputation and competitiveness of institutions (Adetoro *et al*., 2020). Strong ETDS are seen as more modern, student-friendly, and universities with strong ETDS are likely to receive better applications. The use of digital repositories enhances the visibility and impact of institutional research products (Adetoro *et al*., 2020; Loan, 2020).

To have an effective, robust, and decision-support thesis management system, Eqs. (3)–(6) can be included in every ETDS.

a. End–to–End Cycle Time: This is the time elapsed between the time of entry to a programme and the time of exit. This will help determine the period of stay for each student in a programme.

$$T_{cycle} = T_{final} - T_{initial} \quad (3)$$

b. Stage Waiting Time: This should measure how long a thesis/dissertation waits before processing starts.

c. $$T_{wait} = T_{start} - T_{arrival} \quad (4)$$

c. Deadline Compliance Rate: The percentage of students that meet their applicable deadlines within a period of time.

$$C_r = \frac{N-on\ time}{N-completed}\ x\ 100\% \quad (5)$$

d. Rework Rate: This should measure the proportion of cases returned for correction

$$R_r = \frac{N-returned\ cases}{N-processed\ cases}\ x\ 100\% \quad (6)$$

7. Challenges and Barriers to ETDS Adoption

Barriers such as organizational and cultural resistance to change arise (Abdul-Salaam, 2024; Leite *et al*., 2021; Yidana and Akunna, 2025). Examples of this resistance include:

1. Familiarity with the systems in place: Because there are systems in place that have been used for a while, stakeholders have a negative attitude toward learning new ones (Abdul-Salaam, 2024; Yidana and Akunna, 2025).
2. Perceived Complexity: Fears about the complexity and difficulty of use of digital systems (Leite *et al*., 2021).
3. Security and trust issues: Lack of trust in the security and privacy of digital systems (Kayode *et al.*, 2020; Muhammad *et al.*, 2021).
4. Power and Control: Fear of losing control to automation (Yidana and Akunna, 2025).

Other contextual factors add to implementation challenges (Babatola, 2025; Kayode *et al.*, 2020; Yidana and Akunna, 2025):

1. Bureaucratic Complexity: Bureaucratic procedures and approvals are complex and slow decision-making (Babatola, 2025; Yidana and Akunna, 2025).
2. Fragmented Governance: Lack of clarity around responsibilities at department, faculty, and central administration levels (Babatola, 2025)
3. Poor Vendor Ecosystem: Lack of local technology vendors with the right expertise and cost-effective solutions (Abdul-Salaam, 2024).
4. The issue of sustainability: The sustainability issue in terms of skilled personnel that will manage the portal is another major concern (Abdul-Salaam, 2024; Babatola, 2025).

8. Comparative Analysis of ETDS implementation in other countries

8.1 Ghana

Wihi thesis management system was originally developed in Finland but adopted by the University of Ghana. Leite *et al*. (2023) described insightful lessons from this system that will be helpful for Nigerian institutions. Key lessons include:

1. Adaptation Issue: Since the system was originally developed in Finland, it has to be reconfigured to adapt in many ways to the procedures/processes in the University of Ghana.
2. Involvement of Stakeholders: There was a need to consult with stakeholders (students, supervisors, coordinators) who will be directly involved in the use of the system. A pilot test was conducted with 44 stakeholders who gave feedback that helped in the refinement of the system.

8.2 India

Jawaharlal Nehru University developed a system which was used to track digital theses (Narasaiah *et al.*, 2021). Key features in the system are:

1. Robustness of the System: The system contains a submission module, plagiarism checking, scheduling of defence, notification module, viva voce scheduling, and archiving module.
2. System Workflow: The workflow is comprehensive such that SMS notifications are sent to examiners; it helps to automatically route documents and also provide live streaming during defence.
3. Quality Assurance Mechanism: With a plagiarism checking module and metadata collection, quality assurance is guaranteed within the system.
4. Archiving: The system helps to archive all theses that have been defended and successfully submitted.

8.3 Indonesia

IIB Darmajaya, Indonesia developed and successfully deployed a web-based system for research document management (Nursiyanto *et al*., 2020). Key features of the system include:

1. Stick to a Scope: The system was designed to stick to only research proposal submission, review, and archiving.
2. Productivity gains: The system increased productivity of research and service document administration.
3. Community utilization: The system was conceived for community use, to allow for general involvement.

8.4 Serbia

Brkovic *et al.* (2022) description of ETD implementation at the University of Novi Sad, Serbia, is informative on the path to ETD implementation. Key lessons include:

1. Phased Implementation: The process of making a concept into a working system took place in phases, with learning and adaptation.
2. Technical challenges: There were considerable technical issues that had to be addressed and overcome through the process of problem-solving, iteratively.
3. Faculty, students, and administrators needed to be convinced of the benefits, and communication efforts needed to be ongoing to achieve buy-in.

9. Gaps in the Literature

Although an increasing number of publications are available on ETDS, there are still many gaps:

1. Nigerian-Specific Evidence is limited: Papers were found on Nigerian higher education e-governance in general, but there is limited published research work on the implementation of ETDS in Nigerian universities.
2. Outcome Evaluation: The literature is dominated by system features and implementation processes, with few rigorous evaluations of outcomes and impacts. Further research is required regarding the impact of ETDS on student completion rates, time-to-degree, quality of thesis, and other important outcomes.
3. The literature contains little quantitative cost-benefit analysis of the costs and benefits of implementing ETDS. Further cost-benefit analyses would contribute to institutional decision-making.
4. User Experience: Some studies incorporate user feedback, but more research focused on user experience from student, supervisor, and administrator perspectives would add value to the study.
5. Limited Long-Term Sustainability: There are only a few studies that follow the evolution and sustainability of ETDS over time.

10. Findings and Discussion

A significant digital divide is found in the literature to exist between universities and institutions in more developed settings in Nigeria. However, in developed countries, almost all universities have been moving towards implementing a full digital infrastructure for managing their theses (Schöpfel and Boock, 2022), while in Nigeria, most universities are still using the manual approach to thesis management (Abdul-Salaam, 2024; Babatola, 2025). This gap is a manifestation of digital inequality in developing countries, where lack of infrastructure, resources, and capacity hinders digital transformation.

But the digital divide is not even in Nigerian institutions. A greater number of larger, better-resourced universities in cities have achieved better results in e-governance programmes (Jude *et al*., 2025; Kamale and Asaju, 2025), and smaller universities and those in rural areas have a more difficult situation (Abdul-Salaam, 2024; Babatola, 2025). The intra-national variation indicates that approaches to implementing ETDS should be customized to the institutional level, rather than being considered one-size-fits-all.

Studies reviewed have also shown that there is a broad awareness of the need for ETDS, with limited uptake of the actual implementation (Abdul-Salaam, 2024; Babatola, 2025; Jude *et al*., 2025). Several studies have reflected the awareness of inefficiencies in the manual system as well as the benefits of digital system use by the stakeholders in the studies (Abdul-Salaam, 2024; Jude *et al*., 2025), but this awareness has not been reflected in broad adoption of the digital system. This paradox can be attributed to several reasons:

1. Financial and technical resource constraints: Despite the need being identified, financial and technical resource constraints do not allow for action.
2. Competing Priorities: Thesis management has a conflict with other competing demands of the institution for limited resources.
3. Risk aversion: Concerns about the implementation of risk in certain ways, and the uncertainty of whether their plan will be disrupted during the transition process.

4. Thesis Management is an interdisciplinary process, which necessitates the participation of several departments and stakeholders, making the decision-making and implementation process difficult.

The studies reviewed have also shown some comparable contexts from several literatures. The comparison shows that there are common characteristics that are shared by successful ETDS implementation in developing-country contexts (Leite et al., 2023; Brkovic et al., 2022). Some of these common comparisons are:

1. Contextual Adaptation: Adapt solutions to local institutional structures, workflows, and user needs, rather than directly transplanting solutions from other contexts.
2. Linear Approach: Implementation takes place in stages with learning, adjustment, and institutional capacity building.
3. Strong Leadership: Committed leadership who provide vision, resources, and ongoing support is key to a successful implementation of any ETDS.
4. Stakeholder engagement: User engagement and consultation during the implementation process are also very important.
5. Realistic Expectations: Awareness that implementation will take a long time, be difficult, and necessitate patience, perseverance, and openness to issues as they arise.

11. Conclusion and Recommendations

11.1 Conclusion

The literature shows that development of ETDS is a complex task that goes beyond just technical issues. It also requires changes in how organizations work and their culture. Digital transformation can disrupt current workflows, power dynamics, and routines. Even if the technical side is done well, resistance to change can still cause problems.

To manage change well, it is important to understand and address the human side of digital transformation, such as sustainability concerns, training needs, communication, and organizational culture. These areas must work together with strong technical skills.

ETDS offer significant benefits for research management, student experience, and building institutional capacity, but there are also real challenges. With careful planning and the right tools, Nigerian universities can successfully move their thesis and dissertation defenses online and stay competitive in today's higher education landscape.

11.2 Recommendations

From the findings of this study, here are some recommendations for Nigerian universities:

1. There is a need for a thorough assessment of organizational financial strength, technical skills, and human resources readiness before implementation.
2. It is important to use a phased implementation strategy or a pilot strategy to fully understand the workflow of the ETDS before the entire college/school changes over to this process for all students.
3. Agile software methodology should be adopted where stakeholders are also involved in the development and testing of the ETDS before its final implementation. This will allow for a feedback process that will help to refine the system.
4. Policies should be on the ground that will allow for sustainability of the process and training/retraining of technical staff for a better and more robust system.
5. It will be appropriate to start small and gradually up-scale to include more features in the system.

Author Contributions

The conceptualization for this work was initiated by T. Moses and S. Haruna. Search for relevant literature was carried out by T. Agber, while methodology for inclusion of relevant materials was done by J. O. Agushaka. Writing and proofreading were carried out by M. M. Liman and T. Moses.

Funding

This research was funded by TETFund Institutional-Based Research.

Conflicts of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgement

We acknowledge the opportunity given to us by TETFund to carry out this research. This article is the first report of findings from the existing Electronic Tracking and Documentation System in Nigeria and other countries.

References

Abdul-Salaam, A. O. (2024). Development of a Framework to Implement a Web-Based Thesis Management System in Colleges of Education in Nigeria. *American Journal of Education and Technology*, 3(4), 60-71. https://doi.org/10.54536/ajet.v3i4.3678

Adetoro S. S., Oyedum G. U., Abifarin F., Udoudoh, S. and Alhassan J. A. (2020), Performance assessment of electronic theses and dissertations initiatives in Nigeria. *Digital Library Perspectives*, 36(2), 127–148. https://doi.org/10.1108/DLP-01-2020-0001

Ahunna, O. A. and Obiakor, M. I. (2025). Developing an Implementation Framework for Institutionalizing Artificial Intelligence in Educational Administration in Nigeria. *International Nexus Multidisciplinary Research Journal*, 2(1), 38-56. https://inmrj.org/index.php/nexus/article/view/64

Al-khafaji, N. J., Abdullah, R. M. and Kashmoola, M. A. (2020). Evaluating the tracking e-Files prototype project based on the task technology fit model. *Indonesian Journal of Electrical Engineering and Computer Science*, 17(2):728-738. DOI: 10.11591/IJEECS.V17.I2.PP728-738.

Babatola, J. E. T. (2025). Sustainable University Administration: E-Governance and Digital Records, Rethinking Registry Services in 21st Century Universities in Nigeria. *Emmanuel Alayande University of Education, Oyo Maiden Registry Annual Lecture.* DOI:10.5281/zenodo.17663291

Brkovic, M., Tosic, T. and Zubuc, T. (2022). From Idea to Functional ETD: Experiences from the University of Novi Sad, Serbia. *The Journal of Electronic Theses and Dissertations*, 2(3), https://doi.org/10.52407/AEAK3510

Constantino, J., Agustin, J. and Tecson, R. G. (2020). User Acceptance On The E-Docs: Electronic Documents Location Tracking System. *International Journal of Scientific & Technology Research*, 9(3), 792 - 795. https://www.researchgate.net/publication/388832922_User_Acceptance_On_The_E-Docs_Electronic_Documents_Location_Tracking_System/link/67a8be578311ce680c5ac38b/download?_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxpY2F0aW9uIiwicGFnZSI6InB1YmxpY2F0aW9uIn19

Jude, C. O., Anyebe, A. A., Maina, B., and Yerima, H. (2025). Enhancing Students' Administration through Effective Utilisation of Electronic Registration: Evidence from Ahmadu Bello University Zaria and Federal University Dutsin. *ABU Journal of Public Administration*, 12(1), 1-15. https://abujpa.com.ng/index.php/abujpa/article/view/69

Kamale, M. Y. and Asaju, K. (2025). E-governance Adoption and Service Delivery in Selected Tertiary Institutions in Adamawa State, Nigeria 2010–2024. *Futurity of Social Sciences*, 3(1), 126-153. DOI: 10.57125/fs.2025.03.20.08.

Kayode, A. A., Lawan, B. M., Ajadi I. A. and Lukman, J, A, (2020). E-Government, Information and Communications Technology Support and Paperless Environment in Nigerian Public Universities: Issues and Challenges. *Journal of Technology Management and Business*, 7(1), 65-74. DOI: 10.30880/JTMB.2020.07.01.006

Lando, A. L., and Wambua, A. W. (2025). Digital solutions for graduate supervision: A critical analysis of thesis management systems. *American Journal of STEM Education, 9*, 49-64. https://doi.org/10.32674/sbs52z14.

Leite, L. O., Lagstedt, A., Kolog, E. A. and Tsupari, K. (2023). Contextualising thesis process digitalisation at a university in Ghana. *Australasian Journal of Educational Technology*, 39(4), 33-47. https://doi.org/10.14742/ajet.8801

Loan, F. A. (2020). Global electronic thesis and dissertation repositories – collection diversity and management issues. *Insights: The UKSG Journal*, 33(1): 22-34.DOI: 10.1629/UKSG.524.

Macrohon, J. J. E., Bulaong, A. S., Bonsol, J. C. A., Gayeta, J. A. C. and Jeng, J. -H. (2021). Design and Development of a System for Managing Student Research: A Case Study for the School of Information Technology, Mapua University. *2021 IEEE International Conference on Educational Technology (ICET)*, Beijing, China, 2021, pp. 107-111, doi: 10.1109/ICET52293.2021.9563107.

Madibi, Z. (2021) The role of academic libraries in implementing research data services: a case study of the University of KwaZulu-Natal Libraries. *Faculty of Humanities, Knowledge and Information Stewardship.* http://hdl.handle.net/11427/35828

Muhammad, J. S., Mannan, E. F. and Farashi, B. I. (2021). Records Management Practices in Nigerian Public Universities: The Challenges. *Library Philosophy and Practice (e-journal)*, *https://scholarworks.sjsu.edu/cgi/viewcontent.cgi?article=11907&context=libphilprac*

Narasaiah, I., Tripathi, M. and Awasthi, S. (2021). Digital Archiving of Grey Literature in Universities: A case study of Jawaharlal Nehru University, New Delhi. *Library Philosophy and Practice (e-journal)*, 1-15. https://scholarworks.sjsu.edu/cgi/viewcontent.cgi?article=9194&context=libphilprac

Nursiyanto N., Karnila, S. and Ronaldo, R. (2020). Electronic document for research and service with web-based in higher education (case study: LP4M IIB Darmajaya). *Jornal TAM (Technology Acceptance Model)*, 11(2): 1-8. https://jurnal.ftikomibn.ac.id/index.php/JurnalTam/article/view/951/pdf

Ogunode, N. J. (2025). Digitalization of postgraduate examinations in Nigerian tertiary institutions: benefits, challenges, and strategic implications. *Aminu Kano Academic Scholars Association Multidisciplinary Journal*, 1(1), 122-137. DOI:10.64726/g2qsmf41

Osaze, O. E. (2025). Educational Management Information System (EMIS) in higher institutions of Nigeria: Methodologies and theoretical approaches for effective implementation. *International Journal of Business Management and Economic Review*, 8(4), 92-99. DOI: 10.35409/ijbmer.2025.3698.

Punsiri, S. and Wararatchai, P. (2024). Guidelines for Implementing iThesis System in Electronic Thesis Process of Graduate School, Suan Sunandha Rajabhat University.*SSRU Journal of Business Administration and Educational (SSJABE)*, 2(1): https://so12.tci-thaijo.org/index.php/Intergraduatessru/article/view/1514

Schöpfel, J. and Boock, M. (2024). New Frontiers of Electronic Theses and Dissertations. *Priprint.org*. DOI: 10.20944/preprints202411.1158.v1.

Yidana, P. and Akunna, E. (2025). Academic Records Management Practices in Africa Higher Education Institutions: Empirical Review. *British Journal of Contemporary Education*, 5(1), 93–113. DOI: 10.52589/bjce-jryjwent.

Zhelezov, S. and Harizanova, D. T. (2020). Automated System for Development of Doctoral Documentation. *Mathematical and Software Engineering Journal*, 6(1), 7-11. https://distantreader.org/stacks/journals/mse/mse-67.pdf?