

ORGANISATIONAL CHANGE AND STAFF CAPACITY DEVELOPMENT FOR TECHNOLOGY-DRIVEN LIBRARY SERVICES

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Abstract

Academic libraries are undergoing sustained organisational change as digital technologies increasingly reshape service delivery, professional roles, and institutional expectations. Although technology-driven library services offer opportunities for improved access and efficiency, their effectiveness depends largely on how organisational change is supported through staff capacity development. This study examines organisational change and staff capacity development for technology-driven library services in academic libraries. A qualitative research design was adopted, using semi-structured interviews with thirty professional librarians. Data were analysed thematically, guided by the ADKAR change model as the theoretical lens. The findings indicate that organisational change in academic libraries is primarily driven by technology adoption, leading to changes in workflows, service processes, and staff responsibilities. However, staff capacity development was found to be largely reactive, with training initiatives often introduced after the implementation of new technologies. Where capacity development was continuous and aligned with organisational change, librarians demonstrated improved confidence, adaptability, and effectiveness in delivering technology-driven services. In contrast, insufficient capacity development resulted in under-utilisation of digital systems, increased workload, and reduced motivation. Recommendations were made for leadership support and reinforcement; continuous professional development, among others. The study concludes that organisational change can only translate into effective technology-driven library services when systematically supported by staff capacity development within a supportive organisational culture.

Keywords: ADKAR Model; Academic libraries; Capacity Building; Digital Transformation; Organisational Change; Staff Capacity Development; Technology-driven Library Services.

Introduction

Academic libraries are undergoing sustained organisational change as digital technologies increasingly reshape how information services are structured, delivered, and evaluated. The growing demand for electronic resources, remote access, and digitally mediated services has compelled academic libraries to modify their structures, workflows, policies, and professional roles leading to organisational change. Organisational change refers to the deliberate modification of organisational structures, processes, roles, or behaviours in response to internal and external pressures with the aim of improving effectiveness and performance (Okereka & Okolie, 2024). In a similar vein, organisational change is defined as a planned process through which organisations alter existing practices, systems, and relationships to adapt to environmental demands and achieve strategic goals (Baakeel, 2025). Organisational change in this context extends beyond the acquisition of technologies to include shifts in work practices, staff responsibilities, and organisational culture (Chiwere & Ocholla, 2022).

As organisational change intensifies, the capacity of library staff to adapt becomes a critical determinant of success. Staff capacity development refers to the systematic enhancement of librarians' knowledge, skills, and competencies through training and professional development to improve job performance and service delivery (Daniels, 2023). It also involves planned organisational efforts to equip library staff with the technical and professional capabilities required to adapt to technological and organisational change (Ilesanmi, 2023). Evidence shows that when organisational change is introduced without

adequate capacity development, librarians experience skills gaps, uncertainty, and resistance, which undermine the effective use of digital systems (Endouware & Omehia, 2022; Daniels, 2023). This highlights the close interdependence between organisational change and staff capacity development in contemporary academic libraries in this era where technology-driven services are expected to be delivered to patron.

Technology-driven library services refer to library services that are designed, delivered, and managed primarily through digital technologies to enhance access, efficiency, and user engagement in information provision (Tsang & Chiu, 2022). Similarly, Daniel (2023) sees technology-driven library services as the application of ICT tools such as electronic resources, digital repositories, virtual reference systems, and integrated library platforms to support teaching, learning, and research in academic environments.

Despite growing scholarly attention to digital transformation in academic libraries, much of the existing literature focuses on technological systems or user outcomes, with limited empirical emphasis on how staff capacity development mediates organisational change processes, particularly in developing country contexts. The persistent gap between organisational change initiatives and librarians' capacity to implement and sustain technology-driven services constitutes a significant problem for academic libraries seeking to remain relevant and responsive in digital environments.

This study addresses this problem by examining organisational change and staff capacity development for technology-driven library services in academic libraries. Guided

by the ADKAR change model, the study foregrounds the human dimension of organisational change and provides empirical insights into how aligned capacity development can enhance the effectiveness and sustainability of technology-driven library services.

Research Questions

The study is guided by the following research questions:

1. How aware are librarians of organisational change associated with technology-driven library services?
2. How willing are librarians to participate in organisational change for technology-driven library services?
3. What knowledge and training are provided to librarians for technology-driven library services?
4. How does librarians' ICT competence influence their ability to deliver technology-driven library services?
5. How does organisational leadership support librarians during the implementation of technology-driven library services?

Theoretical and Conceptual Framework

This study is grounded in the ADKAR change model developed by Hiatt (2006), which explains individual adaptation to organisational change through five elements: Awareness, Desire, Knowledge, Ability, and Reinforcement. The model emphasises that

successful organisational change occurs through individuals rather than systems alone, making it particularly suitable for examining technology-driven change in academic libraries where librarians' competencies directly affect service delivery. Within this study, Awareness refers to librarians' understanding of the need for technological change, while Desire reflects their willingness to engage with change initiatives. Knowledge relates to the training and information provided to librarians, Ability concerns their capacity to apply acquired skills in practice, and Reinforcement involves organisational support mechanisms such as leadership commitment, feedback, and mentoring that sustain change. The ADKAR model therefore provides a human-centred lens for analysing how organisational change influences staff capacity development and the effectiveness of technology-driven library services.

The conceptual framework positions organisational change as the independent variable, representing changes in structures, workflows, roles, and service models arising from digital transformation. Staff capacity development is treated as a mediating variable through which organisational change affects outcomes, encompassing training, skills acquisition, and continuous professional development. Technology-driven library services constitute the outcome variable, reflecting the effective delivery and utilisation of digital services. Organisational culture and leadership support function as contextual factors that shape how organisational change translates into staff capacity development. Overall, the framework demonstrates that effective technology-driven library services depend on the

alignment of organisational change with systematic staff capacity development within a supportive organisational environment.

CONCEPTUAL FRAMEWORK DIAGRAM

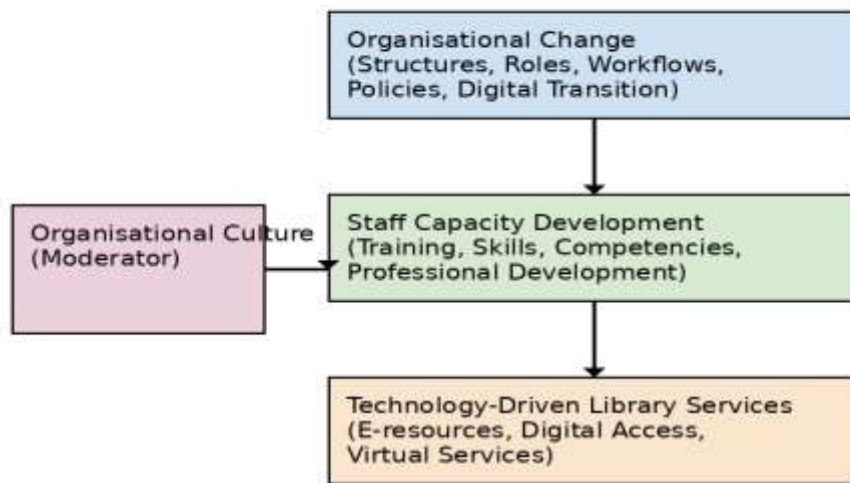


Figure 1: presents the conceptual framework illustrating the relationship between organisational change, staff capacity development, and technology-driven library service.

Source: Obinyan, (2026)

Literature Review

Organisational change has become a defining feature of academic libraries as digital technologies continue to reshape information access, service delivery, and professional practice. Organisational change involves planned adjustments in structures, workflows, policies, and service models to align library operations with digital environments. Scholars emphasise that such change is not merely technical but socio-organisational, as it alters

professional roles, work routines, and organisational culture (Chiwere & Ocholla, 2022). Studies emphasise the centrality of leadership, communication, and employee readiness in determining the success of organisational change. Okereka and Okolie (2024), in a Nigerian public-sector context, found that effective change leadership particularly communication and staff involvement significantly enhances employees' cognitive and behavioural support for planned organisational change. Similarly, Jinga et al. (2024), studying public universities in Ethiopia, reported that leadership behaviour plays a critical role in shaping organisational change outcomes, with participatory leadership styles producing more favourable results than top-down approaches. From an employee perspective, Susanto (2025) demonstrated that organisational trust and readiness for change are strong predictors of successful change outcomes in Indonesian organisations, highlighting the importance of human-centred change strategies. In contrast, Baakeel (2025) found that in higher education institutions, people-centred change positively influenced academics' job commitment, while purely structural or technological changes showed limited impact. Consequently, the success of organisational change initiatives depends largely on how library staff perceive, understand, and adapt to these transformations. Liman (2023) observes that digital transformation initiatives often outpace organisational readiness, creating gaps between technological availability and effective use. Similarly, Oduwole et al. (2023) report uneven adoption of innovative library services due to weak managerial support and insufficient attention to staff preparedness. These findings suggest that

organisational change is often system-centred, with limited consideration of its human implications. As organisational change intensifies, staff capacity development emerges as a critical mediating factor.

Study by Etchie and Ogbomo (2025) established a strong positive link between librarians' participation in staff development programmes and improved service delivery in Nigerian university libraries. In contrast, Onyeisijeh, Odede, and Ogbomo (2025) reported high levels of librarians' competence in South-South Nigeria, attributing this to sustained and structured professional development. Together, these studies indicate that staff capacity development outcomes depend largely on the continuity, quality, and institutional support of training initiatives. Research consistently demonstrates that librarians' ICT competence significantly influences their effectiveness in managing electronic resources and supporting users. Daniels (2023) found that limited ICT skills constrain service delivery in Nigerian university libraries, while Ilesanmi (2023) reported that inadequate digital competence affects librarians' ability to deliver responsive and user-centred services. Furthermore, Endouware and Omehia (2022) found that inadequate ICT training in Nigerian university libraries compels librarians to rely on informal peer learning, resulting in uneven skill acquisition and inconsistent service delivery. Similar challenges have been reported in other African contexts, where the availability of digital technologies is undermined by limited staff skills (Mbago et al., 2025; Kaishe-Mulungu et al.,

2025). These studies underscore the central role of staff capacity development in translating organisational change into improved service outcomes.

Empirical studies indicate that technology-driven library services have become central to academic library operations, though their effectiveness varies across contexts. Tsang and Chiu (2022) found that virtual reference services in academic libraries improved accessibility and user satisfaction. Amofah-Serwaa, et al. (2022) reported moderate awareness but low utilisation of digital reference services in Ghanaian academic libraries, attributing the gap to limited staff engagement and inadequate promotion. Their findings highlight challenges in translating technological availability into effective service use; while Daniels (2023) established that librarians' ICT competence significantly influenced the effectiveness of electronic resource services. The study showed that inadequate skills constrained librarians' ability to support users, leading to under-utilisation of available digital resources. Similarly, Ilesanmi (2023) found that technology-driven services in private university libraries in Nigeria were more effective where librarians possessed higher ICT competence and received regular professional development. The study demonstrates that staff capacity development mediates the success of technology-based services.

More recently, Etchie and Ogbomo (2025) showed that structured staff development programmes positively influenced the quality of technology-driven library services in Nigerian university libraries. Their findings contrast with studies reporting low

service effectiveness, suggesting that institutional commitment to continuous training significantly enhances digital service delivery. Collectively, these studies indicate that while technology-driven library services enhance access and efficiency in academic libraries, their effectiveness depends largely on librarians' competence, and organisational support. Organisational support and leadership play a crucial role in sustaining organisational change. Organisational culture shapes staff attitudes toward learning, innovation, and collaboration, influencing their willingness to engage with change initiatives. Studies show that learning-oriented cultures and supportive leadership enhance staff engagement with capacity development, while weak reinforcement mechanisms undermine sustainability (Moonasar & Underwood, 2018; Obinyan et al., 2021).

The literature demonstrates that organisational change, staff capacity development, and technology-driven library services are deeply interconnected. However, many studies examine technology adoption or ICT competence in isolation, with limited integrative focus on how staff capacity development mediates organisational change processes, particularly within Nigerian academic libraries. This gap underscores the need for human-centred, change management-oriented studies that examine how aligned capacity development can enhance the effectiveness and sustainability of technology-driven library services.

Methodology

This study employed a qualitative research design to examine organisational change and staff capacity development for technology-driven library services in academic libraries.

Thirty professional librarians were purposely selected from five universities in Edo State, Nigeria, based on their experience with technology-driven organisational change and regular use of digital library systems. Data were collected through semi-structured interview guide that was developed based on the ADKAR change model, focusing on awareness, willingness to engage with change, training and knowledge acquisition, ability to apply ICT skills, and organisational support. Interviews were audio-recorded with participants' consent and transcribed verbatim. Data were analysed thematically through coding and theme development, with interpretation guided by the ADKAR framework. The trustworthiness was ensured through member checking, clear documentation of procedures, and strict adherence to ethical principles, including voluntary participation, confidentiality and anonymity. of the study was ensured through credibility, transferability, dependability and confirmability.

Results And Discussion

The thematic analysis of the interview data generated five major themes. The themes are presented as originally reported, with discussion integrated to explain the findings in relation to the ADKAR model and existing literature.

Theme 1: Awareness and Communication about Change Initiatives

Participants demonstrated varying levels of awareness regarding organisational change linked to technology-driven library services. All participants thirty (30) agreed that technologies were introduced to improve services and institution relevance. However,

most librarians (26 out of 30) reported minimal prior communication before implementation.

“We usually hear about a new system only a week before training. There is no roadmap.” (L7)

“Sometimes the information reaches us late, and we enter the change blindly.” (L14)

These findings reveal weakness engagement at the Awareness stage of ADKAR model. Limited communication reduced preparedness and confidence among librarians, supporting Liman’s (2023) observation that poor communication during digital transformation fosters uncertainty and low engagement. It also aligns with Owolabi et al. (2022), who found that although librarians were aware of emerging technologies, awareness did not translate into readiness or effective adoption due to organisational and capacity constraints.

Theme 2: Desire to Engage with Technology – Motivation vs. Fear

Librarians expressed mixed reactions to organisational change. Younger staff were generally more enthusiastic, while older librarian expressed fear and concern about workload and job relevance. Many participants perceived change initiatives as imposed.

“We were not asked if the system fits our workflow; it just came.” (L21)

“I want to learn, but sometimes you feel you are being forced.” (L3)

These responses indicate a weak Desire component within the ADKAR framework. Where librarians felt excluded from decision-making, motivation and commitment to change declined. This finding supports Owolabi et al. (2022), who reported that Nigerian

academic libraries are not yet ready for advanced technologies largely due to institutional and human capacity limitations. The finding also suggests that staff willingness is shaped more by leadership approach and organisational culture than by individual attitudes alone.

Theme 3: Training (Knowledge and Capacity Development Gaps)

Most participant (24) described training a short, theoretical, and one-off. Training was often introduced after new technologies were implemented, leading to reliance on informal learning.

“The training was rushed. We needed at least a week, not four hours.” (L9)

“After the training, no refresher programmes were organised.” (L18)

Participants noted that learning often occurred informally: *“Most times, we learn on the job”* (L6,8, 9).

This finding reflects weaknesses at the Knowledge stage of the ADKAR model. Reactive training limited librarians’ understanding of digital systems and constrained effective capacity development. The finding aligns with Endouware and Omehia (2022) and Daniels (2023), who reported that inadequate and poorly timed ICT training undermines librarians’ effectiveness in technology-driven environments. It is further supported by Etchie and Ogbomo (2025), who found a strong positive relationship between librarians’ participation in structured staff development programmes and improved library service delivery in Nigerian university libraries. Their study demonstrates that where training is systematic and continuous, librarians’ competence and service effectiveness improve.

Theme 4: Ability to Use Technology-driven library services Confidently (Ability)

Only nine librarians reported confidence in using digital system with new systems.

“I still rely on my colleagues to navigate the repository backend.” (L12)

“The system crashes sometimes, and I panic.” (L27)

This finding indicates a gap between Knowledge and Ability within the ADKAR framework. Although some training was provided, it did not translate into sustained competence. This aligns with Ilesanmi (2023), who found that inadequate ICT competence constrains librarians’ ability to deliver effective digital services. However, the finding contrasts with Onyeisijeh, et al. (2025), who reported high levels of professional competencies among librarians in South-South Nigeria as a result of sustained professional development activities. This divergence highlights contextual variation and reinforces the argument that librarians’ ability to deliver technology-driven services depends largely on the availability and quality of capacity development opportunities.

Theme 5: Reinforcement through Organisational Culture and Support

Participants consistently reported weak reinforcement mechanisms following the implementation of new technologies. These included lack of follow-up training, absence of feedback, limited recognition, and no formal evaluation of change initiatives.

“Once the system is launched, we are left alone.” (L23)

This finding reflects deficiencies at the Reinforcement stage of the ADKAR model. Without sustained organisational support, librarians struggled to maintain new practices and often

reverted to traditional methods. This finding aligns with Moonasar and Underwood (2018), who emphasise that reinforcement mechanisms such as mentoring, feedback, and recognition are essential for sustaining behavioural change. It also supports Obinyan, et al. (2021), who argue that supportive organisational cultures enhance learning, adaptation, and sustainability of organisational change.

RECOMMENDATIONS

Based on the findings, the following recommendations are proposed to support effective digital transformation in academic libraries:

1. Ensure leadership support and reinforcement: library leadership should provide ongoing support, feedback and reinforcement mechanisms to sustain adaptation to organisational change
2. Promote Continuous Professional Development (CPD): library management should prioritize continuous training, mentoring, and peer-learning opportunities to staff. It should be continuous, needs-based, and embedded in library operations rather than delivered as one-off training programmes.
3. Integrate capacity development into organisational change planning: academic libraries should embed staff capacity development into organisational change initiatives to ensure that staff are adequately prepared for technology-driven service delivery.
- 4 Improve Communication Channels and Reinforcement. Clear, timely, and transparent communication reduces uncertainty and encourages buy-in.

5. Promote a supportive organisational culture: libraries should foster a leaning-oriented culture that encourages collaboration, innovation, and adaptation to technological change.
6. Adopt participatory approaches to organisational change
7. Replace one-off training with continuous, practice-based learning
8. Address skill confidence gaps through targeted support

Conclusion

This study examined organisational change and staff capacity development for technology-driven library services in academic libraries, using the ADKAR change model as a guiding framework. The findings show that although digital technologies are increasingly introduced to enhance service delivery, organisational change in academic libraries remains largely technology-driven and insufficiently supported by systematic staff capacity development. The study reveals that librarians' awareness of technological change is often superficial due to weak communication, while willingness to engage with change is constrained by limited participation and fear of increased workload. Training and capacity development were found to be largely reactive, short-term, and poorly aligned with job demands, resulting in gaps between knowledge acquisition and practical ability. In addition, weak reinforcement mechanisms and inconsistent leadership support undermined the sustainability of technology-driven library services.

The findings further demonstrate that staff capacity development functions as a critical mediating mechanism between organisational change and effective service delivery.

Where training is continuous, structured, and supported by leadership, librarians exhibit higher competence and improved service effectiveness. Conversely, in contexts where capacity development is weak, technology-driven services remain underutilised despite significant institutional investment.

The study concludes that effective and sustainable technology-driven library services depend on the strategic alignment of organisational change initiatives with continuous staff capacity development within a supportive organisational culture. These insights have practical implications for library administrators, policymakers, and professional bodies seeking to strengthen digital transformation efforts in academic libraries.

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