Role of Change Management in the Use of Disruptive Technologies by Academic Libraries in Nigeria

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Abstract

The rapid evolution of disruptive technologies has significantly impacted academic libraries worldwide, including those in Nigeria. This paper critically examines how effective change management acts as the key enabler for Nigerian academic libraries to harness disruptive technologies successfully. Through a literature and documentary review, the paper identifies trends, barriers, and the change management models most relevant to this context, specifically the Lewin, Kotter, and ADKAR models. The central argument highlights that robust change management strategies—not just technology adoption—are essential for sustaining positive transformation. Conclusions and recommendations emphasize regular staff training and sustained stakeholder funding as critical supports for continuous, successful change.

Keywords: Change, Disruptions, Disruptive technologies, Change management, Academic libraries

1.0 Introduction

Academic libraries globally have transitioned from one development phase to another due to technological innovations. More so, the 21st century has brought about the rapid adoption and use of disruptive technologies by academic libraries worldwide, especially in Nigeria (Tella et al., 2023). Disruptive technologies are those tools that displace and disrupt existing work processes and operations in an organization (Chandra et al., 2017). The adoption of these technologies has improved the library landscape tremendously and has led to significant changes in the way users access and use library collections and facilities (Nzioki, 2021). Examples of some of these disruptive technologies include email, personal computers, the Internet of Things (IoT), mobile phones, social media, cloud computing, robotics, artificial intelligence, and 3D printing, among others (Ehoniyotan & Amzat, 2023; World Economic Forum, 2017).

Undoubtedly, the use of these technologies by academic libraries has changed the library landscape. As a result of these major transformations, academic libraries have responded in diverse ways to meet the changing library environment and sophisticated needs of their users (Vlachos et al., 2019; Wilders, 2017). For instance, the use of disruptive technologies such as the use of electronic databases, AI chatbots, robotics, social media sites among others have changed the information-seeking patterns of users (Nzoiki, 2021). Also, it has brought about increased subscriptions to online databases such as Elsevier, JSTOR, AGORA, and Ebsco-Host, among others (Moonasar & Ngoepe, 2023). The adoption of these technologies has led to numerous changes across diverse job functions in the library, as well as improved skill sets and competencies that are required to operate these tools. These technologies have relieved librarians and other library staff from repetitive and monotonous tasks.

Moreover, these technologies have benefited academic libraries tremendously by assisting in reducing manual library operations, providing inclusive and accessible library services, information sharing, and collaboration, among others (Bradley, 2019). These technologies have continued to influence the way and manner library collections are being utilized, stored, managed, transferred, and shared across libraries (Ehoniyotan & Amzat, 2023). Due to this paradigm shift, academic libraries are no longer

merely providing access to their diverse collections of books, journals, and monographs, among others; rather, academic libraries have become gateways to huge resources on the internet globally, and have become access points to other libraries' collections. Furthermore, most traditional functions undertaken in libraries, such as cataloging, classification, searching, and browsing, have been taken over by the use of disruptive technologies (Nahak, 2017).

Despite these widespread changes, most academic libraries in Nigeria are still struggling to sustain these changes due to challenges such as inadequate funding, erratic power supply, inadequate information, and communication technology (ICT) infrastructure, lack of good leadership to spearhead the change, among others (Bichi, 2021; Saibakumo, 2021; Plessis & Mabunda, 2016). Also, they are likely faced with change-initiated problems, perhaps due to a lack of adequate plans and strategies to sustain these changes, as well as not being able to cope adequately with the myriad disruptions caused by the adoption of these technologies. Therefore, due to the ever-changing landscape of these disruptive technologies, academic libraries are at a crossroads, not knowing the appropriate technology to adopt for their operations (Makori, 2017). Also, most library professionals are not up-skilling regularly as required, to meet up with the evolving nature of these technologies due to some factors that impede skills development such as gender, educational background, years of experience and career cadre among others (Adetunla & Chowdhury, 2025) As a result of these lapses, the design of a robust change management plan by academic libraries in Nigeria is essential to sustain and manage these disruptions within the library environment.

Change management as a discipline is tailored toward planning, implementing, and overseeing ongoing changes in an organization (Shyamala, 2024). It can also be defined as a systematic process of developing and implementing strategies and interventions for organizations transitioning from a current state to a desired state (Hanna et al., 2022). These changes may come in several forms, such as restructuring the organization's organogram, refining the existing organizational processes, learning and re-learning to use new technologies, while doing away with the existing processes, among others. Since these changes are driven by both internal and external factors, it is necessary to ensure they are sustained over time, regardless of their source. For instance, internal changes within the library environment cover areas such as operations, structure, employees, and culture, among others; while the external changes may cover technological advancement, global practices, policy formulation, legislation, and political and economic conditions, among others (Reshi, 2021; Shivappa, 2015). However, if these changes are not properly planned and implemented, they may lead to change-initiated problems, which may negatively affect the operations of the library.

Given the profound disruptions caused by adopting new technologies, effective change management is essential for academic libraries in Nigeria. Recognizing the lack of strategic focus on sustaining these changes underscores the urgent need for intentional change management in addressing the unique challenges presented by disruptive technologies.

In view of the above, this paper examines the role of change management in the use of disruptive technologies by academic libraries in Nigeria. This paper further explores the concept of change management and the dimensions of change within the library environment. It also discusses the concept of disruptive technologies and the types of disruptive technologies utilized by academic libraries globally and in Nigeria. In addition, it further discusses change management models as applicable to academic libraries. Lastly, conclusions and recommendations are made on sustaining and managing diverse forms of change in academic libraries in Nigeria.

1.1 Concept of Change Management

Change management has been defined by researchers in diverse ways in the literature. For instance, Wren (2024) defined "change management as a structured process of planning, implementing strategies, and guiding individuals and organizations through changes to achieve the desired outcome, while addressing resistance and disruptions". According to this definition, change management encompasses several processes undertaken to bring about the expected outcome in terms of the intended change. It can also be viewed as a process of planning, implementing, and overseeing diverse changes within an organization (Shyamala, 2024). These two definitions pinpoint the fact that change must be adequately planned; therefore, for it to be reinforced, a robust or comprehensive change management plan cannot be overemphasized. Any type of change, whether internally or externally driven, should be adequately planned for by academic libraries to ensure that their goals and objectives are

met.

2.1 Dimensions of Change in Academic Libraries in Nigeria

Change can be defined literally as movement from a current state to a desired state. Appiah et al. (2016) defined change as the alteration of the status quo, which can be upward or downward movement. Change is the most constant thing in every organization; it can neither be avoided nor neglected. Change is driven by two major forces; internal and external environments as noted earlier in this paper. However, successful change management in academic libraries requires careful attention to participation, communication, and overcoming resistance (Adedoyin et al., n.d.). Managing change includes several areas such as the detection of change, planning towards change, communication of change through defining new values, behavior skills required to bring change, agreement of all stake holders to avoid resistance to change, implementation and controlling of process (Shan & Shaheen, n.d.).

Researchers have classified change on a continuum of dimensions that are also applicable to academic libraries in Nigeria (e.g., Nwachuku et al., 2023; Jalagat, 2016). These are: continuous and incremental, discontinuous and radical, planned or unplanned, catastrophic or evolutionary, positive or negative, strong or weak, among others. Some of these dimensions are briefly explained below in the context of academic libraries:

i. Continuous and incremental change: This kind of change is a gradual process, and it involves a continuous positive change from one level to another within the library environment. For instance, the management of the library can undertake a promotion exercise or an increase in salaries. This is a type of continuous and positive change for library employees.

ii. Discontinuous and radical change: This type of change brings about a complete change; however, it is discontinuous and radical in nature, such that existing processes and done away with, while new processes are learned and re-learned by library staff. A most suitable example of this type of change is the automation of library processes such as cataloging and classification, among others. This form of change is discontinuous and radical due to several disruptions that may occur in the current or existing processes.

iii. Planned or unplanned change: Change can either be planned or unplanned. All forms of change that are planned are usually successful, compared to those that are not planned. A planned change comes along with a set-out plan, while unplanned changes are implemented haphazardly due to a lack of a comprehensive plan.

iv. Transitional change: This form of change occurs when the library decides to alter what already exists with entirely new ways of doing things. This change occurs within a time frame or period; therefore, an ample amount of patience is required to ensure a smooth transition from the existing processes to the new processes. An example of transitional change in the library environment is the movement from a manual library system to an automated library system.

v. Remedial or developmental change: Change can either be remedial or developmental. A remedial change addresses pressing issues in the library that need urgent attention. It brings about a positive impact on the library staff and the entire library system. Some examples of these issues include reducing workplace stressors, improving staff welfare, and addressing budget deficits. On the other hand, developmental change focuses more on future projects that would benefit employees and the entire organization. For instance, the library can undertake developmental projects that may take a while before they are completed. The impact of a developmental change is not always felt immediately, but it impacts the future of the organization.

vi. Catastrophic or evolutionary change: Change can either be catastrophic or evolutionary in nature. A catastrophic change is disruptive and destructive in nature. It brings about a downward turn in the way an organization operates. On the other hand, evolutionary change is a gradual process that brings about positive improvement over time in the processes and operations of the library.

vii. Positive or negative change: Change can either be positive or negative. A positive change improves the overall well-being of an organization, while a negative change brings about disruption in the activities of an organization. Therefore, academic libraries should be well prepared to handle both negative and positive changes because they could also be disruptive in nature.

viii. Strong or weak change: Change can be either strong or weak. A strong change is able to impact the organization positively; while on the other hand, a weak change does the opposite. A weak change has minimal impact and may not be felt within an organization.If a library is grossly understaffed, and management recruit inadequate hands to manage the

change, the resulting change may be negligible and its impact considered weak.

On the whole, regardless of the type of change an academic library undergoes, it is essential that every stakeholder in the library should be involved in bringing about the expected change. There should be effective communication by the leadership of the library concerning the change so that everyone is aware and prepared to accept the impending change without much resistance (Bano, 2024).

2.2 Concept of Disruptive Technologies

Disruptive technologies are referred to as technologies that usually replace or disrupt existing processes in an organization (Nahak, 2017). In most cases, the use of these technologies alters the way various activities are undertaken within an organization. In the context of academic libraries, disruptive technologies have led to a paradigm shift in the way library processes such as acquisition, preservation, and dissemination of information resources are being implemented (Nahak, 2017). These technologies are expensive to maintain in terms of cost, access, and continuous use by organizations at large (Nzioki, 2021). Therefore, the procurement of disruptive technologies for academic libraries must be adequately planned; the failure to do so could severely impact the budgets of academic libraries due to the complex nature of these tools. Additionally, most academic libraries have been compelled to employ these technologies due to their positive influence on library operations, as well as improving the information-seeking patterns of library users (Nzioki, 2021). Examples of these technologies, just to mention a few, have been adopted by academic libraries in the Nigerian environment such as computing tools, institutional repository, robots, social media applications, mobile devices and wearable devices, cloud computing, internet of things and AI among others (Opoku et al., 2024; Ehoniyotan & Amzat, 2023; Tella et al., 2023).

3.0 Methodology

The methodology adopted for this study is a documentary/literature search of relevant articles on the topic under discourse. Topical analysis was done by segregating the articles into different areas as they appear in this paper, such as concepts of change, concept of disruptive technologies, impact of disruptive technologies on academic libraries services and operations. A total of fifty articles were consulted, and it was eventually narrowed down to thirty-five articles using inclusion and exclusion criteria for the selection.

3.1 Types of Disruptive Technologies Utilized by Academic Libraries Globally and in Nigeria

Academic libraries have embraced the use of disruptive technologies for diverse purposes with the ultimate goal of delivering efficient services. These technologies have been utilized in varying degrees across academic libraries for diverse activities such as cataloging, classification, book shelving, circulation, and binding, among others. Globally, most academic libraries have adopted disruptive technologies in varying dimensions as revealed in the literature. However, the adoption of these technologies comes with its attendant problems in terms of adjusting to the new norm of working and carrying out library operations.

Nahak (2017) identified some sets of disruptive technologies and how they disrupted library operations. For instance, the personal computer (PC) forever changed the way librarians work and communicate in the library. For instance, most librarians had to learn to develop skill sets to use several application packages that were library-related, thereby disrupting and replacing library operations and processes.Also, social networking sites transformed the way librarians communicated within and outside the library, largely displacing letter-writing and disrupting the existing communication channels within the library environment. Most contemporary libraries have adopted social networking sites in varying ways and dimensions such as Twitter, Facebook, WhatsApp, and the likes, to communicate to staff and library users (Nahak, 2017). These sites have disrupted library operations because they deviated totally from the existing communication models earmarked for library staff and users. These days, users can easily get to the library via the social networking sites created to assist in help desk matters.

Another disruptive technology is cloud computing in the library environment, which has replaced many resources that would have been located in-house or provided as a service to end users. With the adoption of cloud computing, it disrupted the existing software and hardware resources housed in those libraries. Libraries that adopted cloud services ensured that library resources were kept in the cloud, which is much safer, but very expensive to maintain. Libraries needed to procure new technologies with high configurations to accommodate those

resources. Also, open libraries in the Scandinavian region adopted disruptive technologies such as Radio Frequency Identification (RFID) technologies, cloud computing, copying, and scanning services to improve their service delivery and operations (Nzioki, 2021). These technologies disrupted the traditional ways of identifying books and other collections in the library. However, in coping with these disruptions, library staff were trained in the use of these new technologies. In the same vein, Shanghai Library in China developed an interactive website to enable users to chat with librarians in real time. Alongside, the library equally adopted a highly efficient transportation system called Tele-lift designed to carry huge volumes of books from one location to another within the library environment (Zhou et al., 2023; Shangai Library, 2020). Tele-lift disrupted the conventional ways of moving books from one location of the library to another. This disruption was a positive one because the affected library staff were relieved of carrying out this job function manually.

In addition, libraries in some African countries adopted disruptive technologies in varying degrees. For instance, the University of Rwanda Library developed a Lib Hub to enable users to search for electronic resources in the library using a search interface (University of Rwanda, 2020). The Lib Hub disrupted the traditional way of searching for resources in the library for staff and users. In coping with these disruptions, both library staff and users were trained before the uptake of these technologies for searching the library's databases.

Also, the Zambia Library developed an innovation-driven library and information service to facilitate efficient service delivery. This innovative, driven service disrupted the existing service model designed for staff and library users; therefore, the staff had to be retrained to learn the rudiments of the new system in rendering efficient library services.

Furthermore, some academic libraries in Kenya adopted social media technologies such as YouTube Channels, Facebook, LinkedIn, and Twitter, among others (Kenya National Library Service, 2020). These social media sites disrupted the operations of the library in terms of creating other ways of accessing the library resources. Due to these disruptions, library users and staff had to learn to use the social media sites to meet their varying library needs.

In the Nigerian environment, most academic libraries have equally adopted disruptive technologies in varying capacities depending on their strength, size, and budget. These technologies have assisted academic libraries in providing efficient and customized services to users at their parent institutions and in the academic community at large (Tella et al., 2023). Examples of these technologies are the internet, social media, digitization of library resources, and automation of library processes, among others (Opoku et al., 2024; Ehoniyotan & Amzat, 2023; Tella et al., 2023). Most academic libraries in Nigeria handled their disruptions in diverse ways through training programmes, workshops, seminars, reorientation of staff, seeking more funds, among others (Ogbomo, 2023; Moonasar & Ngoepe, 2023).

Undoubtedly, the adoption of these disruptive technologies by academic libraries globally and in Nigeria has significantly transformed the library landscape; however, it also presents several challenges that need to be addressed to sustain diverse forms of change. Some of these challenges include low-budget, training and development cost. Interoperability, data security and privacy, obsolescence and sustainability, and the problem of digital inclusion (Amil & Kamlesh, 2023)

3.2 Impact of Disruptive Technologies on the Operations and Services of Academic Libraries in Nigeria

Disruptive technologies have made a tremendous impact on library operations, most especially, it has helped to streamline work processes in the library. These technologies have compelled academic libraries to undertake positive measures by redesigning the organizational chart, reassigning roles and responsibilities, training and retraining library staff, and procurement of other supportive ICTs to support the use of these technologies (Moonasar & Ngoepe, 2023). Also, due to the disruptions caused by these technologies, most academic libraries in Nigeria organize several training sessions for new library users and staff to assist them in accessing and using these emerging technologies seamlessly (Ogbomo, 2023). In addition, disruptive technologies have compelled academic libraries to provide inclusive services to their numerous users (Partap & Neogi, 2019). Consequently, every user can access the library's online resources regardless of their location. These technologies have also promoted collaboration among academic libraries in Nigeria by enabling them to share resources and collections, and they have led to the proliferation of virtual libraries tailored toward meeting the specific needs of users. Other emerging technologies, such as virtual library tours, educational simulations, and

augmented reality-enhanced resources are gradually being embraced by academic libraries globally to enhance user experiences and new ways of learning (Ari, 2018). Another evolving technology is the AI chatbots, which are used to support library operations and services. The use of chatbots in libraries provides guidance and relevant information about library resources and services. Chatbots can analyse user input/queries and provide relevant responses. These AI-powered tools enhance user engagement, improve accessibility, and offer 24/7 support, they help libraries deliver efficient and personalised assistance to their patrons while freeing up staff for more complex and challenging tasks. They improve user engagement and accessibility. However, these tools are not without its challenges when deployed within a library environment, such as a lack of personal touch of human interaction; also, incurring diverse kinds of costs on the part of the library, such as maintenance, procurement, and training, need to be considered (Anil & Kamlesh, 2023).

Lastly, disruptive technologies have led to the creation of new job positions in the library, such as Information Technology officer, Information Technologist, Computer operator, and Chief Programmer, among others. These professionals can now work within the library environment due to the adoption of these technologies, compared to some decades back, when library work was restricted to only librarians and other ad-hoc staff in the library.

4.0 Change Management Models as Applicable to Academic Libraries in Nigeria

Change management models such as Lewin model, Kotter model, ADKAR model, Bridges Transition model, and Mckinsey 7S model, among others; have been identified in the literature as essential tools for the successful planning and implementation of change using a structural approach. These models are necessary for successful transitioning in the adoption of evolving technologies by academic libraries. Adoption of disruptive technologies by academic libraries has its attendant challenges, therefore, there is the need to adapt relevant change management models to sustain the disruptive change. For instance, Islamabad and Rawalpindi academic libraries utilized change management process in libraries in areas such as information communication technology, virtual reference & research services, performance management, digital libraries, organizational culture and structure, career orientation and human resource management among others (Shan & Shaheen, n.d.). Therefore, change management models are useful in coping with changes in diverse areas of the library.

However, for the sake of this paper, the first three models are discussed extensively. These three models are selected based on their relevance and application to successful planning, implementation, and sustaining diverse forms of change initiatives within any library environment.

The first model is Lewin's Change Management Model. This model was invented by Kurt Lewin in 1950. This model assessed change from three main perspectives: Unfreeze stage, Change stage, and Refreeze. Each of these stages is discussed in the context of academic libraries in Nigeria:

i.Unfreeze stage: This is the stage of planning and preparing rigorously to embrace the new change. At this stage, effective communication is key; therefore, library staff should be aware of what the change is all about and should be ready to adjust to align with the new change. If library employees are resisting the change, then, proper orientation is required to change their mindset. At this stage, conducting an organizational process analysis would help to understand the current loopholes in the work processes; also, change agents should communicate compellingly the desired change; and also, employees' concerns regarding the change must equally be addressed transparently.

ii. Change stage: This is the stage of implementing the change and ensuring that the set plan comes to fruition. At this stage, management of the library should make resources available so that the change can be effected.

iii. Refreeze stage: This stage involves sustaining and consolidating the intended change, and ensuring it is embraced by all stakeholders in the library. A feedback mechanism should be put in place to provide continuous input on the new change and to assess its impact on both staff and the library at large.

4.0.1 Kotter Change Management Model

The second model is the Kotter change management model. It is an 8-step model proposed byJohn Kotter in 1996. Kotter's model provides an easy-to-follow road map for change managers in the library. The 8 stages are explained briefly below as applicable to a library environment:

i. Create a sense of urgency: The first stage of change management, according to this model, is to create a sense of urgency for the expected change. In the context of academic libraries, the management

can be involved in the process of sensitizing and reorienting the workforce on the need for the intended change, and its importance to the library.

ii. Build a guiding team: The leadership of the library should constitute a team of change agents that would be entrusted with the assignment of leading and motivating other employees to align with the change. This group of people is expected to communicate effectively the need for change through several channels available in the library. Adequate feedback from other library staff is required to weigh their attitude toward the expected change.

iii. Create a vision for change: A vision for the change is required to show management's commitment and support for the expected change. The vision communicates the intention of management concerning the change to the library staff.

iv. Communicate the vision: The vision should be communicated by the leadership of the library through several forums. By doing this, the expected change can be sustained. The vision must be shared with the library employees as often as possible until the change is effected in the organization.

v. Remove barriers to change adoption: There are several barriers that may hinder change adoption. These barriers need to be identified and worked upon so that the expected change would not be hindered. One of the barriers to change that may likely occur in a library environment is the attitude of library staff and users. If any wrong attitude remains, even after the change has been effected, it would hinder the sustainability of the change.

vi. Generate short-time wins: This can be done very early within the change process to demonstrate to the library staff the likely success that may come with the acceptance of the intended change. By this, the employees will see for themselves the dividend that would accrue to the library if the change is embraced.

vii. Sustain the progress and momentum: The progress made towards accomplishing the change must be sustained, especially by the change agents. All hands must be on deck to ensure that the intended change is sustained to the end. All relevant stakeholders in the library should be involved in sustaining the change, and all efforts towards effecting a positive change should be prioritized.

viii. Institute change into the organization: After the change had been effected within the library environment, there is a need for readjustment to the new norm. Of this, the management of the library may need to come up with new strategies, new culture, new procedures, and new values, among others, to sustain the change. Management may also need to ensure that a new strategic vision for the change is reinforced continually to sustain and institutionalize the change.

4.0.2 Prosci ADKAR Model

The third model is the Prosci ADKAR model developed by Jeff Hiatt (2006). This simple model is based on the understanding that organizational change is propelled by individuals within the organization. This model helps in guiding individuals through a series of changes in an organization. The word ADKAR is an acronym for the five requirements that an individual needs for positive change to be effected in an organization. These are: Awareness, Desire, Knowledge, Ability, and Reinforcement. Therefore, these five processes are required for change to be successfully impacted on individual staff in the library. If an organization, such as a library does not consider the impact of change on individual employees first, then organizational change may not be sustainable. Therefore, the ADKAR model is relevant to academic libraries because it serves as a potent tool to impact change both at the individual level and collective level. Each of the requirements in this model is discussed briefly below and their relevance to academic libraries:

i. Awareness: The first requirement for change is awareness. Library staff should be aware of the expected change. Management must ensure that everyone in the library is actively involved in the process of change. Awareness must be created through effective communication by the stakeholders; and most importantly by the change managers in the library.

ii. A desire for change: The second requirement for successful change adoption by academic libraries is a desire for change. An employee in the library must desire for change first before emphasizing collective interest. The desire for change will propel the involvement of each of the library employees in participating fully in all the processes to effect a successful change.

iii. Knowledge: The third requirement for effective positive change is knowledge. Library employees should be knowledgeable on what the change is all about; and how to effect a change. By this, academic libraries can organize a series of seminars or workshops to deliberate on the intended change, and the roles library staff are to play to ensure success.

iv. Ability: The fourth requirement has to do with demonstrating skillfulness or ability on the part of the library staff. Employees need to be equipped

with the required skills to bring about the expected change. They also need to exhibit the right behavior in the form of attitude and mindset for the expected change to manifest.

v. Reinforcement: The fifth requirement is reinforcement to sustain the change. To sustain change, library employees should be positively reinforced so that change can be sustained. Reinforcement such as rewards, incentives, and all kinds of motivation, is required to sustain the new change. Regular feedback is required from the employees after the change has been effected to sustain and reinforce the new change.

On the whole, any of the above three change management models discussed can be adopted by academic libraries in Nigeria for planning, implementing, and sustaining any diverse kinds of change. These models are simple, easy, and structured in nature. They are equally suitable for small, medium, and large academic libraries in Nigeria.

4.0.3 Case Studies of Academic Libraries that Handled Diverse Disruptive Changes

Few examples of academic libraries that handled diverse disruptive changes are are discussed below:

In 2018, the University of Ghana Library System (UGLS) experienced some changes due to the unprecedented rotation of staff within its main library and satellite libraries. Fifty (50) Junior and senior library staff who had been in one position for more than a decade were rotated within the UGLS. This disruptive change was tackled through pre- and post- interviews of staff involved, and lessons learned one year later. In carrying out these changes, it was discovered that the value of communication, the structured process and transparency made the change easier and implementation smoother (Dadzie & Mensah n.d.)

In the same vein, management of Willard Marriott Library at the University of Utah applied change management processes in the reorganization of the library's IT personnel. A structured process, transparency, and effective communication made the change easier and the implementation smoother (Soehner, n.d).

Appiah et al., (2016) examined change management in public and private university libraries in Ghana. Data was obtained from the heads of the various university libraries using interview method; and analyzed using content analysis. It was revealed that majority of the respondents from the two libraries were aware of ongoing changes in the libraries, however, changes in technology were the most prevalent type of change initiative embarked upon by the academic libraries. Also, the library staff were not resistant to change projects embarked upon in the library. The study concludes that academic libraries should have change management policies and staff should be involved in the discussions and decision making processes in relation to change management.

These few case studies have proven that change management processes are utilized by academic libraries, however, specific change management models are rarely adopted by these academic libraries in terms of using disruptive technologies; perhaps due to inadequate knowledge of the extent of applicability of these models to the library environment.

4.1 Barriers Hindering Change in Academic Libraries in Nigeria

Researchers in the literature have identified several barriers that can hinder change in organizations. These barriers are also applicable to academic libraries in Nigeria (Bano, 2024; Reshi, 2021). Therefore, in bringing about positive change within the library environment, academic libraries may need to identify likely barriers that may hinder change initiatives as they unfold. These barriers identified in the literature are briefly explained below (Bano, 2024; Reshi, 2021; Malik, 2021)

i. Employee resistance: Employee resistance is one of the major hindrances to organizational change. In the context of academic libraries, it is possible that if employees are comfortable with their current work processes, they may resist any kind of change that may bring about disruptions in their work. Also, fear of the unknown, and the likely consequences of the change, such as loss of job security, may bring about high resistance to the intended change (Reshi, 2021)

ii.Lack of proper planning: The process of transitioning from one level of change to another should be adequately planned by the management of academic libraries. However, improper planning may hinder the process of change, thereby contributing to unrealized change objectives and goals (Reshi, 2021)

iii.Poor communication strategy: When the intended change is not communicated adequately, there are bound to be problems within the library environment. If the communication strategy is very poor, this may hinder change. Without a proper communication strategy that involves everyone in the library, change initiatives may fail (Malik, 2021).

iv.Unclear objectives and lack of clarity: Library

employees may be unwilling to commit to change if they don't understand clearly the objectives and the value the change would bring to them. Therefore, the leadership of the library must ensure clear objectives and goals are set for any form of change initiatives (Reshi, 2021).

v. Change fatigue: This may occur in the library when it is simultaneously running multiple change projects. By this approach, employees may tend to be unnecessarily stressed and overwhelmed concerning the changes, thereby leading to burnout (Bano, 2024)

vi. Lack/inadequate resources: Due to a lack of resources, any kind of change initiatives implemented in the library may fail. Human, technological, and financial resources are needed to implement change initiatives in the library. However, if there is a lack of or inadequate resources to implement the change initiatives, failure is inevitable (Malik, 2021).

vii. Lack of support from management: The management of academic libraries should be supportive and fully committed to any kind of change initiatives. However, if management does not provide adequate support as required, the change initiatives may fail (Bano, 2024)

viii. Political and power tussle: Change initiatives may be hindered due to power tussles amongst the heads of units in the library. This could occur as a result of internal rancor, misplaced priority, and competing for available resources, among others. If not addressed, this could hinder the change initiatives (Bano, 2024).

Library management should address these barriers as they implement diverse changes. Academic libraries can identify specific strategies to address each of these barriers so that the change initiatives can be successful. Nevertheless, change management models are tools that can be utilized by academic libraries in Nigeria; in tackling and addressing likely barriers that come with the use of disruptive technologies.

5.0 Conclusion

This paper has highlighted the pivotal role that change management procedures can play in the use of diverse disruptive technologies by academic libraries in Nigeria. Change management is essential to facilitate the successful transition from one level of change to another in the library environment. Therefore, academic libraries should be proactive in the planning and implementation of change management procedures. Undoubtedly, disruptive technologies have benefited academic libraries globally and in Nigeria, but there is the urgent need for academic libraries in Nigeria to adapt the use of change management models in coping with disruptive changes. Therefore, academic libraries in Nigeria need to undertake rigorous training in the use of change management procedures to successfully manage and sustain the changes brought about by these disruptive technologies as the fifth revolution unfolds. This approach would motivate employees to support diverse change initiatives driven by library management.

5.1 Recommendations

In a bid to sustain the changes brought about by disruptive technologies, as well as improve change management procedures utilized by academic libraries in Nigeria, the following recommendations are hereby made:

1. Academic libraries in Nigeria should undergo regular training on successful change management procedures, implementation plans, and strategies for sustaining change.

2. Academic libraries should adopt a suitable and applicable framework or model to assist in the successful planning and implementation of change initiatives within the library environment.

3. Academic libraries should create a conducive organizational climate for continuous skills development and competencies to enable the use of disruptive technologies as they evolve.

4. Academic libraries should improve their level of preparedness to embrace change as disruptive technologies evolve in the near future.

5. Relevant stakeholders in academic libraries should be involved in continuous funding for the procurement of evolving disruptive technologies , particularly their parent institutions

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