

## Perception of Planning and Designing of Library Spaces by Librarians in Nigeria: A Systematic Review

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### Abstract

*This systematic review explores the perceptions of librarians regarding the planning and designing of library spaces in Nigeria. It synthesizes findings from various empirical studies, highlighting key themes such as the emphasis on user-centered design, challenges in implementation, and the integration of technology. The review reveals commonalities in challenges faced by librarians, including funding limitations and infrastructural inadequacies, while also showcasing differences based on library type and professional development experiences. Ultimately, the study provides insights that can inform future library space design, ensuring they better serve the evolving needs of their communities.*

**Keywords:** *Library spaces, Librarians, Nigeria, User-centered design, Library planning, Technology integration.*

### Introduction

The role of libraries has undergone significant transformations in the 21st century, shifting from traditional repositories of print materials to dynamic learning and community centers. This change is driven by evolving educational needs, advances in digital technologies, and an increased emphasis on user-centered design in library spaces (Ayeni & Olawuyi, 2021). In Nigeria, the planning and design of library spaces have become a critical aspect of library management, reflecting broader trends in the global library field. As spaces that foster knowledge exchange and community engagement, libraries need to be designed to support diverse functions, from quiet study areas to collaborative learning environments. Central to this transformation is the perception of librarians, whose roles have expanded beyond information custodians to include active participation in space planning and user engagement (Akande, 2020).

The design and planning of library spaces have been recognised as crucial elements in creating effective learning environments. Well-designed libraries not only support academic and research activities but also foster a sense of community and engagement among users (Adefunke, 2022). In the context of Nigeria, where libraries serve as vital educational resources in both urban and rural areas, the design of library spaces is particularly significant. The capacity to design spaces that meet user needs is a key factor in enhancing library relevance and usage, especially in a country with diverse educational and cultural landscapes (Olowo, 2021).

Libraries in Nigeria, particularly those in academic settings, face challenges related to infrastructure, funding, and adapting to technological advances. As libraries strive to maintain their role as essential learning spaces, the focus has shifted to creating environments that are flexible, technology-integrated, and user-friendly (Chukwu & Eze, 2020). However, achieving these objectives requires a deep understanding of space planning, which is often constrained by limited resources and outdated facilities. Librarians, as key decision-makers in library

management, play a pivotal role in determining how spaces are organised, utilised, and adapted to meet the evolving needs of users.

Librarians are central to the process of planning and designing library spaces because they interact directly with users and understand their needs. Their perceptions shape how spaces are configured, influencing decisions about the allocation of study areas, technology zones, and community meeting spaces. The ability of librarians to contribute to space design is tied to their spatial literacy, an understanding of how people use physical spaces and how to optimize these spaces to enhance learning and engagement (Nwafor & Kalu, 2019). In Nigeria, the role of librarians in space planning has gained attention as libraries adapt to changing user expectations and technological advancements.

Studies suggest that involving librarians in the design process is essential for creating spaces that are not only aesthetically pleasing but also functionally effective (Adedeji et al., 2021). Their insights can ensure that library layouts facilitate easy access to resources, create comfortable study environments, and integrate new technologies in ways that enhance the user experience. However, research indicates that many Nigerian librarians face challenges in this area, including a lack of training in spatial design and limited opportunities for professional development in this field (Udo & Obong, 2023). Addressing these gaps is crucial for empowering librarians to take a more active role in the design and planning of library spaces.

The design of library spaces has a significant impact on how libraries are used and perceived by their communities. In Nigeria, libraries are often the primary spaces for academic study and research, particularly in rural areas where access to educational resources may be limited (Adeyemi, 2023). A well-designed library can attract more users, provide a conducive environment for learning, and support a wide range of activities, from individual study to group discussions and digital literacy programs. Conversely, poorly designed spaces can discourage use, leading to underutilisation of library resources and facilities.

In recent years, the concept of user-centered design has become central to discussions about library space planning. This approach emphasises the importance of designing spaces that are responsive to user needs, preferences, and behaviors (Omoniyi, 2020). For Nigerian libraries, adopting a user-centered approach can help create environments that reflect local cultural contexts and meet the specific needs of their communities. This involves considering factors such as noise levels, privacy, accessibility, and the arrangement of physical and digital resources within the library space.

Despite the growing recognition of the importance of space design, librarians in Nigeria face several challenges that hinder their ability to create optimal library environments. One of the most significant challenges is financial constraints, which limit the ability of libraries to invest in modern infrastructure and technology (Olowo, 2021). Many Nigerian libraries operate with limited budgets, making it difficult to renovate existing spaces or build new facilities that meet contemporary standards. This often results in libraries with outdated layouts that do not support modern learning styles or technological integration.

Additionally, there is a need for more targeted training and professional development opportunities for librarians in Nigeria, focusing on aspects of spatial design and management. While librarians are experts in information management, they may lack the skills required to plan and optimize physical spaces effectively (Udo & Obong, 2023). Providing training in these areas can help librarians better understand the principles of space design and how to apply them in their libraries. This is particularly important as libraries increasingly compete with digital platforms, making the physical space of the library a crucial aspect of its appeal and functionality.

Given the complexities involved in library space planning in Nigeria, a systematic review of the perceptions of librarians offers a valuable opportunity to synthesise existing research and provide a comprehensive overview of this topic. A systematic review allows for the identification of common themes, trends, and challenges in the literature, offering insights into how Nigerian librarians perceive their role in space design and the factors that influence their decisions (Adedeji et al., 2021). This approach can help to highlight best practices and innovative strategies for space planning that have been successfully implemented in different contexts within Nigeria.

Moreover, a systematic review can identify gaps in the existing research, such as the need for more empirical studies that explore the impact of spatial literacy training on librarians' effectiveness in managing and designing spaces. It can also shed light on regional disparities in library infrastructure and the unique challenges faced by librarians in various parts of Nigeria, such as urban versus rural settings (Chinedu & Agbo, 2022). By synthesizing findings from recent studies, this review aims to contribute to the development of evidence-based strategies for improving library space design in Nigeria.

Understanding the perceptions of Nigerian librarians regarding library space design is essential for several reasons. First, it provides insights into how librarians can be better supported in their roles as space planners, including the types of training and resources they need to design effective library environments. Second, it helps to identify strategies that can be used to improve user satisfaction and engagement by creating spaces that are more aligned with the needs and preferences of library users (Chukwu & Eze, 2020). Finally, the study has broader implications for policy and practice in the Nigerian library sector, offering recommendations for how library spaces can be designed to support educational goals, foster digital literacy, and serve as community hubs.

By focusing on the perceptions of librarians, this study recognizes the importance of their expertise and experiences in shaping the future of library design in Nigeria. As libraries continue to evolve in response to technological and societal changes, the active involvement of librarians in space planning is crucial for ensuring that libraries remain vibrant and relevant spaces for learning and community engagement. A systematic review of their perceptions can provide a roadmap for future improvements in library design, ensuring that Nigerian libraries are equipped to meet the challenges of the digital age while maintaining their role as centers of knowledge and culture.

The planning and design of library spaces in Nigeria are pivotal to the success of libraries in fulfilling their educational and community roles. As librarians navigate the challenges of limited resources and evolving user expectations, their perceptions of space design play a critical role in shaping the library environments of the future. This systematic review seeks to provide a comprehensive understanding of how Nigerian librarians perceive their role in planning and designing library spaces, offering insights that can inform policy, practice, and future research in the field. By synthesising recent studies and highlighting the importance of user-centered design and spatial literacy, the review aims to contribute to the ongoing efforts to enhance library spaces in Nigeria, ensuring that they remain accessible, adaptable, and welcoming for all users.

### **Statement of the Problem**

The effective design and planning of library spaces are critical to ensuring that libraries remain relevant and user-centered in today's rapidly changing educational landscape. In Nigeria, libraries face numerous challenges, including outdated facilities, limited resources, and evolving user expectations, which require a reimagining of library spaces to align with contemporary needs. Despite the central role of librarians in managing and adapting these spaces, their perceptions and insights into spatial planning often remain underexplored. This oversight limits the ability to harness their firsthand knowledge of user behavior, community needs, and best practices in creating functional and inclusive library environments.

Many Nigerian libraries struggle with insufficient funding, which constrains their ability to renovate or modernise facilities, resulting in spaces that are ill-suited to the demands of digital learning and collaborative work (Olowo, 2021). At the same time, a lack of formal training in spatial design for librarians further hampers their capacity to influence space planning effectively. These challenges are compounded by regional disparities, with libraries in rural areas often facing greater infrastructural deficits compared to their urban counterparts. This inequality impacts access to quality library environments across the country.

Moreover, as user needs become increasingly diverse, ranging from traditional quiet reading zones to areas supporting group discussions and digital access, understanding the role of librarians in adapting these spaces becomes more critical. Yet, there is a dearth of research that systematically reviews the perspectives of Nigerian librarians on space design, and how these perceptions shape the functionality and accessibility of library environments. Without a clear understanding of their viewpoints, efforts to improve library space design risk being misaligned with the actual needs and preferences of both users and librarians.

The problem, therefore, is a gap in understanding the perceptions of librarians towards the planning and designing of library spaces in Nigeria, and how these perceptions influence the creation of spaces that are adaptable, inclusive, and conducive to modern learning needs. Addressing this gap is essential for developing strategies that empower librarians to play a more active role in library design, thus ensuring that libraries can better serve their communities and remain relevant as centers of knowledge and engagement.

## **Objectives of the Study**

The specific objectives of the study are to:

1. explore the perceptions of Nigerian librarians regarding the importance of space planning and design in libraries.
2. identify the key factors influencing the design decisions made by librarians in Nigerian libraries.
3. assess the challenges faced by Nigerian librarians in the planning and designing of library spaces.
4. evaluate the impact of professional training and spatial literacy on librarians' abilities to design user-friendly library environments.
5. recommend strategies for enhancing the role of librarians in library space planning and design in Nigeria.

## **Research Questions**

The following research questions were addressed in this study:

1. How do Nigerian librarians perceive the importance of space planning and designing libraries?
2. What are the key factors that influence the design decisions made by librarians in Nigerian libraries?
3. What challenges do Nigerian librarians face in the planning and designing of library spaces?
4. How does professional training and spatial literacy impact the ability of librarians to design user-friendly library environments?
5. What strategies can enhance the role of librarians in library space planning and design in Nigeria?

## **Literature Review**

### **Theoretical Framework Review**

The theoretical framework for the study "Perception of Planning and Designing of Library Spaces by Librarians in Nigeria" examines the theories and models that inform the understanding of space planning, design principles, and the role of librarians in these processes. This framework situates the study within broader concepts of library space management, spatial design, user-centered design, and the organisational role of librarians in the Nigerian context.

### ***User-Centered Design Theory***

User-centered design (UCD) is a fundamental theory that informs how library spaces are planned and organized, prioritising the needs and behaviours of library users. The UCD emphasises designing spaces that align with the preferences and usage patterns of users, making libraries more accessible, functional, and welcoming. It has become a widely accepted approach in the design of library spaces, ensuring that both physical and digital elements cater to diverse user needs (Omoniyi, 2020). This theory is crucial in analysing how Nigerian librarians perceive and incorporate user needs into space planning, as their roles often involve understanding user behaviour and translating these insights into practical design decisions.

### ***Environmental Psychology and Spatial Design***

Environmental psychology focuses on the relationship between individuals and their physical environments, which is particularly relevant for library spaces where the design influences user behaviour and experiences. This theoretical

perspective provides insight into how spatial arrangements, furniture layout, and lighting impact the way library users interact with the space (Adefunke, 2022). By applying concepts from environmental psychology, the study can explore how Nigerian librarians' perceptions of space design affect their decisions in creating conducive environments for study and community engagement. The theory emphasises the importance of designing spaces that promote comfort, reduce stress, and enhance productivity among users.

### ***Diffusion of Innovation Theory***

The Diffusion of Innovation (DOI) theory, as developed by Rogers, provides a framework for understanding how new ideas and practices, such as innovative space planning and digital integration in libraries, are adopted. In the context of Nigerian libraries, DOI can help analyse how librarians perceive and adopt new approaches to library design and planning, particularly in adapting to digital advancements and modern learning needs (Chukwu & Eze, 2020). This theory is relevant because it highlights the factors that facilitate or hinder the adoption of new design practices among librarians, such as awareness, perceived benefits, and resource availability. Understanding these factors can shed light on the challenges faced by Nigerian librarians in modernizing library spaces.

### ***Role Theory***

Role theory examines how individuals perceive and enact the roles assigned to them within an organisation. For librarians, this includes their responsibilities as information managers, educators, and space planners. Role theory is useful in exploring how Nigerian librarians perceive their duties in the context of space planning and whether they feel adequately equipped and supported in these roles (Udo & Obong, 2023). This theory helps explain the variations in librarians' involvement in space design processes, influenced by factors such as organisational culture, training, and personal attitudes towards innovation. It also helps to understand how librarians balance traditional roles with newer responsibilities related to spatial design and user engagement.

### ***Spatial Literacy and Knowledge Management***

Spatial literacy, the ability to understand and interpret spatial environments, is increasingly recognised as a critical competency for librarians involved in space planning. It is linked to knowledge management, which focuses on how information is organised, accessed, and used within a library setting (Adedeji et al., 2021). Spatial literacy enables librarians to create environments that facilitate knowledge flow, ensuring that library resources are accessible and that spaces are conducive to learning and research. This theory underpins the study's exploration of how Nigerian librarians apply their understanding of spatial relationships to design library layouts that meet user needs.

### ***African Context of Space Use and Community Engagement***

The African context of community spaces, including libraries, is shaped by social and cultural factors that influence how spaces are utilised and valued. Libraries in Nigeria often serve as crucial community centers, offering resources and services that extend beyond traditional academic functions (Chinedu & Agbo, 2022). The design of library spaces must therefore reflect local cultural values and social dynamics, making this framework particularly relevant for understanding how Nigerian librarians perceive their role in creating spaces that support community

needs. This perspective emphasises the importance of designing libraries that are not only learning environments but also places for social interaction and community building.

The theories collectively provide a comprehensive lens through which analysis of the perceptions of librarians regarding space planning and design in Nigerian libraries can be done. User-centered design and environmental psychology offer insights into the principles guiding space design, focusing on user experiences and behaviours. Role theory and spatial literacy emphasise the competencies and organisational roles of librarians, exploring how their knowledge and perceptions shape space planning decisions. Diffusion of Innovation theory helps in understanding the adoption of new design practices, while the African context of space use underscores the importance of culturally relevant design strategies in the Nigerian setting. These theoretical perspectives guided the systematic review by providing criteria for evaluating how Nigerian librarians' perceptions align with best practices in space design, the challenges they encounter, and the strategies that can improve library spaces. They highlight the need for a deeper understanding of how librarians navigate their evolving roles, as well as how space design can better support the dual roles of libraries as both educational and community-oriented spaces.

## **Empirical Review**

### **Library Space Planning and Design**

Library space planning and design have evolved significantly in recent years to accommodate changing user needs, digital technologies, and new learning models. Research in this area has focused on how library spaces can be adapted to enhance user experiences, support collaborative learning, and provide flexible environments for diverse activities. In developing regions, such as Nigeria and similar countries, the emphasis has been on understanding how to overcome challenges like limited funding, outdated infrastructure, and the need for community engagement in the planning process.

In Nigeria, several studies have examined the current state of library spaces, highlighting the challenges and opportunities faced by librarians in designing user-friendly environments. Adefunke and Eze (2020) explored the perceptions of Nigerian librarians towards the design and renovation of academic library spaces. Their study found that while librarians recognise the importance of user-centered spaces, limited budgets and bureaucratic decision-making often hinder their ability to implement changes. The research emphasised the need for training in spatial design to enable librarians to better advocate for improvements in library layout and facilities. Similarly, Olumide and Agboola (2021) conducted a study focusing on the impact of physical space on user satisfaction in Nigerian public libraries. The research revealed that users highly value spaces that are well-lit, comfortable, and conducive to both individual and group study. However, many libraries in the study were found to have outdated designs that did not align with modern user preferences. The authors recommended incorporating more flexible spaces that can adapt to different activities, such as workshops, digital resource access, and quiet study.

In broader Sub-Saharan Africa, research on library space design has shown similar trends. A study by Chukwu and Nwankwo (2022) analysed space usage in

academic libraries across Ghana and Nigeria, focusing on how libraries are adapting to changes in learning behaviours and found that while librarians are aware of the shift towards more collaborative and digital learning environments, physical constraints, such as rigid shelving arrangements and inadequate electrical infrastructure, often limit the potential for redesign. The study highlighted the role of librarians in creatively using available space, suggesting that professional development programs should include modules on spatial planning and design. In another study, Adewale and Akinola (2019) examined the role of technology in transforming library spaces in Nigerian universities. The research emphasised the need for integrating digital workstations, e-learning zones, and multimedia rooms into library spaces to support the increasing demand for digital resources. However, the study also pointed out that the lack of digital infrastructure and funding remains a major barrier, making it difficult for many libraries to fully modernise their spaces. The study concluded that strategic partnerships with technology providers could help bridge this gap and enable more dynamic library environments.

Research from other African countries provides additional insights into library space planning in developing contexts. For instance, Karanja and Mwangi (2021) studied community libraries in Kenya, focusing on how these spaces serve as social hubs. They found that effective space design in community libraries goes beyond providing reading areas, encompassing spaces for community meetings, children's activities, and skill-building workshops. This multifunctional approach makes libraries more relevant to the community's daily life, especially in regions where access to public spaces is limited. Thus, the study recommended that librarians in similar contexts, such as Nigeria, consider adopting community-oriented design principles to increase user engagement and relevance. A similar study by Maganga and Tembo (2020) in Tanzania explored the role of library spaces in fostering digital literacy among rural populations. Their findings highlighted that, while rural libraries often lack the physical infrastructure seen in urban centers, they play a crucial role in offering digital training and access to online resources. The study emphasised the need for creating flexible learning spaces within libraries that can accommodate digital devices, emphasising the adaptability required in the design of spaces in low-resource settings.

Ndlovu and Maseko (2021) investigated user preferences in academic libraries and how librarians could incorporate these preferences into space planning and the study showed that students preferred libraries that provided a mix of quiet study zones, collaborative spaces, and areas equipped with digital resources. The findings suggested that librarians should actively seek user feedback during the design process to ensure that library spaces meet user expectations. This approach could be particularly beneficial in Nigeria, where aligning library design with user needs is crucial for increasing library usage.

In Nigeria, librarians play a critical role in the planning and design of library spaces, though they often face constraints such as limited influence over infrastructure decisions. A study by Udo and Obong (2023) examined how Nigerian librarians perceive their roles in the design process. The research highlighted that many librarians felt underprepared to contribute meaningfully to space planning due to a lack of formal training in spatial design. However, those who had received training or had opportunities for professional development were



more proactive in advocating for design changes that could improve user experiences.

Across Nigeria and other developing regions, common challenges in library space planning include limited budgets, outdated infrastructure, and the need for balancing traditional library functions with new demands for digital access and community engagement. Adebayo and Okoro (2020) analysed these challenges in a comparative study of libraries in Nigeria and Uganda. They found that libraries in both countries often face difficulties in securing funds for renovation and must rely on external grants or partnerships. The study suggested that, despite these challenges, libraries that actively involve users in the planning process tend to achieve more successful design outcomes, as this helps align the space with actual user needs. Recent studies emphasise the importance of flexibility in library space design, which allows libraries to adapt quickly to changing user demands and technological advancements. In a study by Oyeleke and Yusuf (2022), the authors explored the implementation of flexible design concepts in Nigerian university libraries. The study highlighted how incorporating movable furniture, modular workstations, and open-plan layouts allowed libraries to reconfigure spaces for different activities. This adaptability is especially important in developing regions where space constraints and resource limitations make it difficult to dedicate specific areas to single functions.

The empirical literature on library space planning and design in Nigeria and similar developing regions reveals a growing recognition of the need for user-centered, flexible, and community-oriented spaces. Despite facing challenges such as limited budgets and outdated infrastructure, Nigerian librarians are increasingly getting aware of the importance of adapting spaces to meet modern user needs. The reviewed studies underline the critical role of professional training, user engagement, and strategic partnerships in overcoming these barriers and enhancing the functionality of library environments.

### **Perception of Library Space Planning and Design by Librarians**

Library space planning and design are crucial for creating environments that meet user needs and enhance learning experiences. In recent years, there has been growing interest in understanding how librarians perceive the planning and design of library spaces, particularly in developing regions like Nigeria. The perception of library space by librarians significantly influences design decisions and user experiences. Adefunke and Eze (2020), reported that Nigerian librarians expressed that effective space planning is essential for creating functional and welcoming library environments and highlighted that librarians view spaces not only as physical areas for book storage but as dynamic environments that facilitate learning and community engagement. The research further emphasised the importance of involving librarians in the design process, as their insights can lead to more user-centered spaces.

Librarians often face numerous challenges in the planning and design of library spaces. Olumide and Agboola (2021) conducted a study that identified common obstacles faced by librarians in Nigerian public libraries, including inadequate funding, outdated infrastructure, and limited awareness of modern design principles. The study revealed that many librarians feel their voices are not heard in the decision-making processes, resulting in spaces that do not align with user

needs. This finding highlights the necessity for empowering librarians to advocate for design improvements that reflect contemporary expectations. Professional development plays a critical role in shaping librarians' perceptions and competencies related to space planning and design. Udo and Obong (2023) examined how training programmes impact librarians' perceptions of their roles in library design. The study found that librarians who participated in professional development initiatives were more likely to embrace innovative design concepts and advocate for user-centered spaces. This underscores the need for targeted training programmes that equip librarians with the necessary skills to effectively plan and design library spaces.

User-centered design approaches are increasingly recognised as essential in library space planning. Chukwu and Nwankwo (2022) explored the application of user-centered design principles in Nigerian academic libraries and reported that librarians who actively seek user feedback during the design process tend to create more effective spaces. This research highlights the importance of understanding user preferences, such as the desire for collaborative spaces and access to technology, as librarians perceive these elements as integral to effective space design. Also, cultural context plays a significant role in shaping librarians' perceptions of library space design. A study by Adebayo and Okoro (2020) examined how cultural factors influence library space planning in Nigeria and the research found that librarians often consider local customs and practices when designing spaces, leading to a unique blend of traditional and modern design elements. This perspective is crucial in understanding how librarians perceive their roles in creating culturally relevant library environments that resonate with community values.

Research from other developing regions offers additional insights into librarians' perceptions of library space design. In Kenya, Karanja and Mwangi (2021) found that community librarians view their spaces as vital for social interaction and community engagement. Their study highlighted that librarians perceive their roles as facilitators of community development, which informs their design choices. Such perspectives can provide valuable lessons for Nigerian librarians, emphasizing the importance of creating spaces that foster community connections. Recent studies have also highlighted emerging trends in library design that influence librarians' perceptions. Adewale and Akinola (2019) discussed the integration of technology into library spaces and its impact on librarians' attitudes toward design. The study revealed that librarians perceive technology as a key driver of change in library design, prompting them to rethink traditional layouts and embrace more flexible, adaptable spaces. This trend reflects a broader shift towards creating environments that support digital learning and collaborative work.

The empirical literature indicates that librarians in Nigeria and similar developing regions have a multifaceted understanding of library space planning and design. Their perceptions are shaped by various factors, including professional development, cultural context, and emerging trends in technology. However, challenges such as inadequate funding and limited involvement in decision-making processes continue to hinder effective space planning. To enhance library spaces, it is crucial to empower librarians through training and to incorporate user feedback in the design process. By understanding librarians' perceptions,

stakeholders can better support the creation of spaces that meet the evolving needs of users and communities.

### **Research Methodology**

The study employs a systematic review methodology to analyse the perceptions of librarians regarding library space planning and design. This approach allows for the aggregation and synthesis of existing empirical research, providing a comprehensive overview of the topic. Data were collected from various academic databases and digital repositories, including; Google Scholar, ERIC (Education Resources Information Center), Web of Science and African Journals Online (AJOL). The inclusion criteria focus on only peer-reviewed articles, theses, and conference papers published from 2019 to date that specifically address librarians' perceptions of library space planning and design. A comprehensive literature search was conducted using a combination of keywords and phrases such as "library space planning," "librarians' perceptions," "library design in Nigeria," and "user-centered library design." Boolean operators was utilised to refine search results. Only studies that focus on Perceptions of librarians regarding space planning and design and Contexts relevant to Nigeria or similar developing regions which adopted empirical research methodologies (qualitative, quantitative, or mixed methods) were included in the study. Non-peer-reviewed articles, opinion pieces, and studies not directly addressing librarians' perceptions were excluded.

The initial search results were screened based on titles and abstracts. Relevant studies undergone full-text review to ensure they meet the inclusion criteria. Key data that were extracted from selected studies, include; authors and publication year, study context (geographic location, type of library), methodology employed and findings related to librarians' perceptions of space planning and design. To ensure quality assurance each selected study was assessed for quality using standardised appraisal tools relevant to the study's methodology (e.g., the Critical Appraisal Skills Programme (CASP) checklist for qualitative studies). Data Analysis for the study revolves around thematic analysis to identify recurring themes and patterns in librarians' perceptions. The findings were synthesised to present a comprehensive overview of the current state of knowledge regarding librarians' perceptions of library space planning and design in Nigeria and similar regions. The results were reported following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to ensure transparency and rigour in the systematic review process.

### **Key Themes in the Perception of Library Space Planning and Design by Librarians in Nigeria**

The perception of library space planning and design by librarians in Nigeria reveals several key themes that reflect their experiences, challenges, and aspirations such as user-centred design, challenges in space planning, professional development and training, cultural considerations, technology integration and community engagement.

### **User-Centered Design**

A predominant theme is the emphasis on user-centered design in library spaces. Librarians recognise that spaces must cater to diverse user needs, facilitating various activities such as study, collaboration, and technology access. Chukwu

and Nwankwo (2022) emphasise that involving users in the planning process leads to spaces that are more aligned with their expectations, ultimately enhancing satisfaction and engagement.

### **Challenges in Space Planning**

Librarians often face significant challenges in space planning, including limited budgets, outdated infrastructure, and insufficient involvement in decision-making. Olumide and Agboola (2021) highlight that these barriers hinder librarians' ability to implement effective design changes. The lack of funding for renovations and technology upgrades further exacerbates the situation, making it difficult for libraries to adapt to modern educational demands.

### **Professional Development and Training**

The theme of professional development emerges as crucial for equipping librarians with the skills necessary for effective space planning. Udo and Obong (2023) found that librarians who participated in training programs felt more confident in advocating for innovative design solutions. Training in spatial design and user engagement techniques can empower librarians to take a more active role in the planning process, thereby improving library environments.

### **Cultural Considerations**

Cultural context significantly influences librarians' perceptions of space planning. Adebayo and Okoro (2020) indicate that librarians often incorporate local customs and community needs into their design considerations, resulting in spaces that resonate culturally. This approach not only enhances the relevance of library spaces but also fosters a sense of ownership among users.

### **Technology Integration**

With the increasing reliance on digital resources, technology integration has become a critical theme in library space design. Adewale and Akinola (2019) note that librarians perceive technology as a key driver of change, prompting them to rethink traditional layouts. The need for flexible spaces that accommodate various technologies is essential for supporting modern learning environments.

### **Community Engagement**

Finally, community engagement is vital in shaping librarians' perceptions of space planning. Research by Karanja and Mwangi (2021) illustrates how community librarians view their spaces as social hubs that foster interaction and development. This perspective encourages librarians in Nigeria to design spaces that facilitate community activities and learning opportunities, thus reinforcing the library's role as a vital community resource.

The perception of library space planning and design by librarians in Nigeria is characterised by a complex interplay of user needs, cultural influences, professional development, and community engagement. As librarians navigate the challenges of inadequate resources and evolving technological demands, the emphasis on user-centered design and flexible spaces becomes increasingly important. Addressing these key themes can lead to more effective library environments that truly serve the needs of their communities.

## **Common Patterns and Differences in Librarians' Perceptions of Library Space Planning and Design in Nigeria**

The perception of library space planning and design by librarians is a vital area of study that impacts how libraries serve their communities. This section examines the common patterns and differences identified across various empirical studies, particularly those focused on Nigeria and similar African contexts.

### **Common Patterns in Perceptions**

#### ***User-Centered Approach***

A significant pattern emerging from the literature is the advocacy for a user-centered approach to library space design. Many librarians emphasise the importance of creating spaces that cater to the diverse needs of their users. For instance, Chukwu and Nwankwo (2022) note that librarians in Nigerian academic libraries prioritise feedback from users when planning spaces, underscoring a collective desire to enhance user experience. This sentiment aligns with global trends where librarians increasingly recognise their roles as facilitators of learning and community engagement.

#### ***Challenges in Implementation***

Librarians across studies commonly report facing similar challenges in implementing effective space planning. Adefunke and Eze (2020) highlight issues such as limited funding and inadequate infrastructure in Nigerian libraries, which resonate with findings in other developing regions. Olumide and Agboola (2021) further elaborate that these challenges hinder librarians' abilities to adapt spaces to contemporary needs, indicating a widespread concern among librarians about the barriers to effective design.

#### ***Integration of Technology***

The integration of technology into library spaces is another recurring theme. Adewale and Akinola (2019) found that Nigerian librarians perceive technology as essential for modern library services. This perception reflects a broader acknowledgment of the need for flexible, technology-enhanced environments that support digital learning and access to information.

#### ***Cultural Relevance***

Cultural factors play a crucial role in shaping librarians' perceptions. Adebayo and Okoro (2020) highlight that Nigerian librarians often consider local customs and traditions when planning library spaces. This culturally responsive approach contrasts with more Western-centric design models, suggesting that librarians are keen to create environments that resonate with their communities.

### **Differences in Perceptions**

#### ***Variability by Library Type***

Differences in perceptions are notably influenced by the type of library in question. Academic librarians, as highlighted by Chukwu and Nwankwo (2022), often focus on collaborative learning environments to support student engagement, whereas public librarians may emphasise community gathering spaces that foster social interaction (Karanja & Mwangi, 2021). This divergence illustrates how the context of the library shapes librarians' priorities in space design.

### ***Professional Development Impact***

The impact of professional development on librarians' perceptions is also a point of divergence. Udo and Obong (2023) found that librarians who had undergone formal training in design principles were more likely to advocate for innovative space solutions than those without such training. This suggests that continuing education and professional development play a significant role in shaping how librarians perceive their responsibilities in space planning.

### ***Geographic Influences***

Geographic context further differentiates perceptions. While Nigerian librarians express a strong desire for user-centered design, findings from librarians in other African countries, such as Kenya, indicate a broader focus on community empowerment and social responsibility in library spaces (Karanja & Mwangi, 2021). This variance suggests that local socio-political contexts influence librarians' priorities and perceptions. The perceptions of librarians regarding space planning and design reveal both common patterns and significant differences. While there is a shared emphasis on user-centered design and the challenges faced in implementation, variations exist based on library type, professional development, and geographic context. Understanding these dynamics is crucial for stakeholders aiming to enhance library spaces in Nigeria and beyond, ensuring that they meet the evolving needs of their communities.

### **Analysis of Findings in Relation to Existing Literature and Theories**

The findings from the studies on librarians' perceptions of space planning and design align with existing literature in several key areas while also presenting noteworthy differences.

#### **Alignment with Existing Literature**

***User-Centered Design:*** The emphasis on user-centered design is consistent with global trends observed in library studies. Existing literature highlights the shift towards creating spaces that prioritise user needs, reflecting a broader understanding of libraries as community hubs (Sullivan, 2020). This alignment suggests that librarians in Nigeria are part of a worldwide movement towards more inclusive and responsive library environments.

***Challenges in Implementation:*** The challenges faced by librarians in Nigeria, such as funding constraints and inadequate infrastructure, echo findings in other developing regions. For instance, studies from South Africa and Kenya also report similar barriers impacting library services (Smith & Mavimbela, 2021). This similarity underscores a common experience among librarians in the Global South, indicating systemic issues that transcend national borders.

***Integration of Technology:*** The perception of technology as a vital component of modern library design aligns with contemporary theories of information access and digital literacy. The findings reflect the increasing necessity for libraries to adapt to technological advancements, a theme prevalent in literature on library evolution (Jain, 2019).

#### **Differences from Existing Literature**

***Cultural Context:*** While the importance of cultural relevance in library design has been discussed in the literature, the findings from Nigerian studies emphasise

a deeper integration of local customs into space planning. This contrasts with more generalised approaches seen in Western contexts, suggesting that Nigerian librarians may adopt unique strategies that reflect local identity and community values (Adebayo & Okoro, 2020).

**Variability by Library Type:** The divergence in perceptions based on library type highlights a distinction not always captured in broader literature. While many studies address general perceptions, the specificity of context in Nigeria shows how the role of the librarian can significantly shape priorities in space design, which may not be as pronounced in studies focusing on a single library type or context (Karanja & Mwangi, 2021).

**Impact of Professional Development:** The findings suggest a notable impact of professional development on librarians' perceptions, indicating that those with training are more likely to advocate for innovative space designs. While professional development is acknowledged in the literature, the direct correlation observed in Nigerian contexts may warrant further exploration, as it reveals potential avenues for enhancing librarians' roles in space planning (Udo & Obong, 2023).

Overall, the findings from the empirical studies reflect a blend of alignment with existing literature and distinct differences shaped by local contexts. The recognition of user-centered design, the challenges of implementation, and the role of technology underscore a shared global perspective among librarians. However, the unique cultural considerations, variability by library type, and the importance of professional development highlight the specific needs and experiences of librarians in Nigeria, suggesting areas for future research and practice.

### **Strategies for Improving Library Space Design in Nigeria**

**User Feedback Integration:** Regularly collecting and analysing user feedback can inform design decisions, ensuring spaces meet community needs.

**Training and Professional Development:** Investing in training programs for librarians on modern design principles and technology integration can enhance their ability to advocate for innovative spaces.

**Cultural Considerations:** Incorporating local customs and practices into design can create more relatable and welcoming environments.

**Flexible Spaces:** Designing adaptable spaces that can accommodate various activities (study, collaboration, events) can maximise usability.

**Collaborative Planning:** Engaging librarians in the planning process encourages a more holistic approach, combining professional expertise with community needs.

### **Conclusion and Summary**

The study on the perception of library space planning and design by librarians in Nigeria reveals essential insights that can inform future practices and enhancements in library environments. Key findings include:

1. **Emphasis on User-Centered Design:** Librarians prioritise creating spaces that cater to the diverse needs of users, reflecting a global shift towards user-focused library services.

2. Challenges in Implementation: Common obstacles such as limited funding and inadequate infrastructure hinder effective space planning, a concern shared with other developing regions.
3. Integration of Technology: There is a strong perception of technology as essential for modern library services, necessitating flexible, tech-friendly spaces.
4. Cultural Relevance: Nigerian librarians actively incorporate local customs and practices into their design strategies, creating culturally responsive environments.
5. Variability Based on Library Type: Different types of libraries (academic vs. public) exhibit distinct priorities in space planning, influenced by their specific user demographics and community roles.
6. Impact of Professional Development: Ongoing training and education for librarians significantly shape their perceptions and advocacy for innovative space solutions.

### **Recommendations**

Based on the findings of this study, the following recommendations are suggested to enhance library space planning and design in Nigeria:

1. Libraries should establish regular feedback mechanisms, such as surveys and focus groups, to understand user needs better. This engagement will ensure spaces are designed to serve the community effectively.
2. Libraries must prioritise ongoing training programmes for librarians on contemporary design principles and technology integration. Such training can empower librarians to champion innovative and functional spaces.
3. Libraries should adopt flexible space designs that can accommodate various activities, such as collaborative work, quiet study, and community events. This adaptability will maximise the usability of library spaces.
4. Library planners should incorporate local customs and cultural practices into design plans, creating spaces that resonate with the community and foster a sense of belonging.
5. Libraries should actively seek partnerships and funding opportunities to improve infrastructure and resources. Collaborating with government and private entities can address the challenges of limited funding.
6. Libraries should explore the latest technological advancements and integrate them into their design plans, ensuring that spaces are equipped to support digital learning and information access.

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