

RESEARCH ARTICLE



Developing a Leadership Style Model in Academic Library Management in the Digital Era

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Abstract: This study aims to develop an effective leadership style model for academic library management in the digital era, emphasizing the necessity for leadership to adapt in managing digital resources and responding to users' evolving expectations. It addresses how such a model can be effectively applied within higher education library contexts. A qualitative analytical approach is employed, focusing on transformational and transactional leadership styles. The findings indicate that transformational leadership provides both motivation and vision to guide institutional change toward a more efficient and innovative digital library environment. In contrast, transactional leadership plays a key role in managing routine operations with greater efficiency. The need to cultivate leadership competencies among library staff in this digital era is indisputable. The article proposes the integration of technology into library management practices to enhance adaptability and foster innovation. It contributes to the academic discourse by exploring the impact of digital transformation on existing leadership models and calling for further research to construct new frameworks suited to contemporary digital contexts.

Keywords: Leadership style, Library management, Digital era.

Abstrak: Penelitian ini bertujuan untuk mengembangkan model gaya kepemimpinan yang efektif untuk manajemen perpustakaan akademik di era digital, dengan menekankan perlunya kepemimpinan beradaptasi dalam mengelola sumber daya digital dan menanggapi ekspektasi pengguna yang terus berkembang. Penelitian ini membahas bagaimana model tersebut dapat diterapkan secara efektif dalam konteks perpustakaan perguruan tinggi. Pendekatan analisis kualitatif digunakan, dengan fokus pada gaya kepemimpinan transformasional dan transaksional. Temuan menunjukkan bahwa kepemimpinan transformasional memberikan motivasi dan visi untuk memandu perubahan institusional menuju lingkungan perpustakaan digital yang lebih efisien dan inovatif. Sebaliknya, kepemimpinan transaksional memainkan peran kunci dalam mengelola operasi rutin dengan efisiensi yang lebih besar. Kebutuhan untuk mengembangkan kompetensi kepemimpinan di antara staf perpustakaan di era digital ini tidak dapat disangkal lagi. Artikel ini mengusulkan integrasi teknologi ke dalam praktik manajemen perpustakaan untuk meningkatkan kemampuan beradaptasi dan mendorong inovasi. Artikel ini berkontribusi pada wacana akademis dengan mengeksplorasi dampak transformasi digital terhadap model kepemimpinan yang ada dan menyerukan penelitian lebih lanjut untuk membangun kerangka kerja baru yang sesuai dengan konteks digital kontemporer.

Kata kunci: Gaya kepemimpinan, Manajemen perpustakaan, Era digital.

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1. Introduction

Developing an effective leadership style model is essential for managing academic libraries in the digital era. Advances in digital technology have transformed how these institutions operate and deliver services (Singh et al., 2022). This era demands new skills and competencies from library leaders to manage digital resources and information efficiently. Students and university staff now expect fast and seamless access to information through digital platforms. A survey conducted by the National Library of the Republic of Indonesia reports a significant increase in the use of digital resources across academic libraries. Research from several Indonesian universities reveals that institutions led by adaptive and innovative leadership are more successful in implementing digital technologies and improving user satisfaction. Furthermore, policies issued by the Ministry of Education and Culture encourage the integration of digital technology into library management, reflecting institutional support for leadership development in this area. Establishing an effective leadership style model in academic library management is thus crucial to ensuring these institutions can adapt to technological change, meet user needs, and enhance service quality. With government policy support and the implementation of innovative leadership practices, academic libraries can play a pivotal role in supporting teaching, learning, and research activities.

Previous studies have identified a range of effective leadership style models in academic library management (Shal et al., 2024); however, there remains a notable gap in research that examines how the digital era specifically affects these models. Much of the existing literature has focused on traditional approaches—such as transformational, transactional, and situational leadership styles—within higher education library contexts (Leigh, 2014; McCleskey, 2014). The emergence of digital technologies has reshaped how academic libraries function, not only in service delivery but also in leadership and administrative structures (Anindhyta et al., 2023; Saykili, 2019). This shift underscores an urgent need to explore how digitalization influences the effectiveness of established leadership models, and whether entirely new frameworks are necessary. Transformational and transactional leadership, as discussed in studies by Mottoh (2015) and Mangi et al. (2021), have shown how leaders can motivate and influence team members in dynamic settings. More recent research by Kumari (2022) and Mihu et al. (2023) highlights how digital transformation has intensified the demand for digital competencies and technological adaptability across organizations. A number of literature reviews (Ghamrawi & M. Tamim, 2023; Lim & Teoh, 2022; Lo et al., 2020) suggest that, despite growing interest in leadership within digital organizations, limited attention has been paid to its implications for academic libraries. While previous research provides a solid conceptual foundation for understanding leadership in this domain, there is still insufficient exploration of how these models evolve in response to digital disruption. Further research is required to develop and assess effective leadership models within the digital context, enabling academic libraries to become more adaptive and responsive to technological change.

This article seeks to address this research gap by outlining the development of a leadership style model within the context of academic library management in the digital era. In order to achieve this, the study addresses three central research questions. First, how can a leadership style model be effectively implemented in academic libraries in the digital age? This question focuses on identifying the specific elements of leadership styles that are relevant and critical in this context. Second, how can transformational or transactional leadership styles be adapted to enhance efficiency and innovation in digital library management? This question relates to unresolved issues in previous studies regarding the applicability of these leadership styles in higher education library settings shaped by digital

transformation. Third, what are the strategic approaches to developing leadership competencies among academic library staff in the digital era? Each of these questions is explored in detail in the subsequent sections of this article.

This paper is structured around three main arguments. First, in response to technological advancements and the shifting paradigms of information access, the development of an inclusive and adaptive leadership style model is crucial. Emphasis must be placed on the ability to integrate new technologies into library services, cultivate a collaborative and innovative work culture, and lead digital transformation effectively—all of which are central to success in this context. Second, transformational leadership can offer motivation and a clear vision to drive change toward a more innovative and efficient digital library environment. In contrast, transactional leadership can be employed to manage day-to-day operations more effectively, particularly in resource management and the achievement of short-term goals. A thoughtful combination of both styles can foster a library environment conducive to technological adaptation and innovation-driven growth. Third, strategies for developing leadership competencies among academic library staff in the digital era should include targeted training in current information technologies, change management approaches, and the enhancement of collaborative and communication skills. These efforts must also be supported by an organizational culture that values experimentation and innovation, and that facilitates successful adaptation to rapid environmental changes. By addressing these arguments and the guiding research questions, this article offers a comprehensive exploration of how leadership styles can be developed and effectively implemented in academic library management during the digital era, while also proposing strategies for strengthening leadership capacity among library staff.

2. Literature review

2.1. Leadership style

Leadership style in academic libraries refers to the strategies and behaviours employed by library leaders to manage and direct resources and personnel in achieving the educational and academic goals of higher education institutions through library services (Fathonah, 2019; Opeke & Oyerinde, 2019). According to Araujo et al. (2021) and Rafi et al. (2019), this concept encompasses the leader's ability to build and maintain relevant information collections, foster innovation in digital services and information technology, and facilitate access to and use of information for faculty members, students, and university staff. Leadership styles in academic libraries can vary depending on the specific demands of the academic environment, including the capacity to adapt to technological changes and academic guidelines, as well as to lead initiatives that support the overall educational and research missions of higher education institutions (Antonopoulou et al., 2021; Niță & Guțu, 2023; Srirahayu et al., 2024).

Leadership style in academic libraries involves various variables, such as leadership types (including authoritarian, democratic, and transformational), educational level (Nazula et al., 2024; Verisa et al., 2024), and the experience of library leaders, as well as organizational culture factors (Cheng & Zhu, 2023; Martin, 2016). According to Goswami (2023) and Khan & Hossain (2015), its components include information collection management, library policy development, human resource management, and interaction with academic users. Characteristics of these leadership styles encompass the ability to adapt to technology and changes in information access, as well as the capacity to motivate and inspire staff to achieve the library's strategic objectives (Muktamar B et al., 2023; Thanh & Quang, 2022). These styles may manifest as long-term vision-based leadership, collaborative decision-making, and change management aimed at enhancing innovation in library services (Jain, 2015; Jantz, 2017). Indicators of success can be observed through

user satisfaction with services, staff participation in professional development, and the impact of scholarly publications produced by library users (Kiran, 2010; Minghong & Xianjun, 2018). Relevant case studies include the implementation of new information technologies, transformation of collection policies, and the development of educational initiatives that in holistic manner support the academic mission of higher education institutions.

2.2. Library management

Library management in higher education refers to the range of strategic and operational activities undertaken to effectively oversee library resources, including information collections, reference services, information technology infrastructure, and personnel (Ebisi & Arua, 2019; Manoj & Sinha, 2015). This concept encompasses the planning of library policies that support education and research within universities, the development of collections responsive to academic needs, and the implementation of efficient library management systems to ensure easy and effective access to information for users (Anshori et al., 2022). Understanding library management also involves efforts to enhance information literacy and technological knowledge among library staff, as well as the development of training programs to ensure quality services that remain relevant to the latest advances in information and technology.

Library management in higher education involves various variables, such as library size, physical and digital resources, and available budget. Its components include collection management, reference services, digital collection development, information technology management, and human resource management (Sunu, 2022; H Yu & Breivold, 2008). According to Eje & Dushu (2018) and Meghanandha & Umesha (2023), characteristics of effective library management include operational efficiency, user empowerment in accessing information, compliance with library standards and policies, and innovation in services offered. Forms of library management may include the use of integrated library management systems, cross-departmental collaboration in education and training, and collection development strategies responsive to the academic and research needs of higher education institutions (Ayo et al., 2023; Stoddard et al., 2019). Indicators of successful library management can be observed through digital collection usage rates, user satisfaction with library services, and the effectiveness of information literacy programs conducted. Relevant cases involve the implementation of new technologies in library services, the development of collection policies that support university curricula, and strategic initiatives aimed at expanding accessibility and sustainability of library collections.

2.3. Digital era

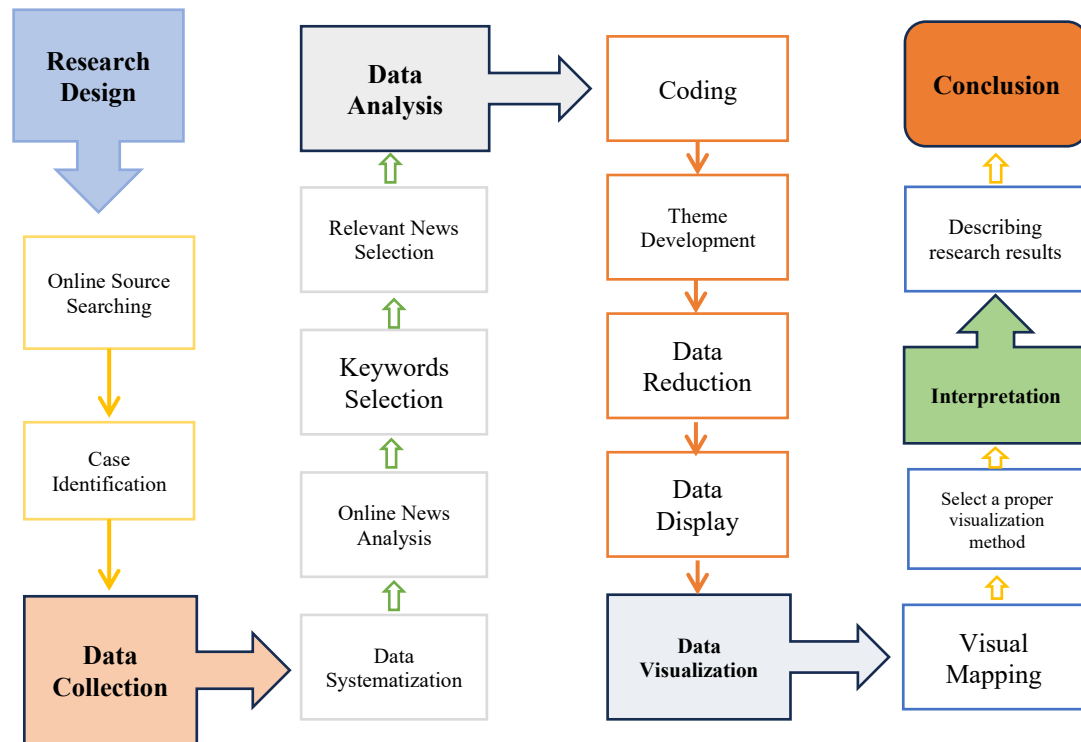
Libraries in the digital era within higher education refer to a fundamental transformation in how libraries manage, provide, and facilitate access to information resources in an increasingly digitized academic environment (Bailey, 2008; Raja et al., 2024). This concept encompasses the application of information and communication technologies to expand the reach of library services, optimize the management of digital collections, and enhance interactions between users and electronic information resources (Muazu et al., 2024; Olaniyi et al., 2012). According to Thiruppathi (2024) and Mucklis et al. (2022), understanding libraries in the digital era involves strategies such as integrating digital library management systems, developing institutional repositories for scholarly publications, adopting data-driven approaches in collection decision-making, and empowering digital information literacy among academic community members. This transformation not only changes operational practices but also broadens the potential for academic collaboration and innovation in supporting the educational and research missions of higher education institutions in holistic manner.

Higher education libraries in the digital era involve various variables such as information technology infrastructure, collection digitization policies, and user information literacy (Qolamani & Mohammed, 2023; Verma, 2024). According to Muazu et al. (2024) and Qolamani & Mohammed (2023), key elements include the management of electronic databases, integration of digital library management systems, remote access services, as well as data security and privacy. Characteristics of libraries in this era include flexibility in providing 24/7 access to information, adaptation to emerging technologies, collaboration with external information service providers, and offering training to users on utilizing digital resources (Dash & Chakraborty, 2021; Lamba, 2022). Forms of digital era libraries may encompass online learning platforms, institutional repositories for scholarly publications, and the development of digital literacy guidance services. Success indicators involve the rate of technology adoption by users, the quality and volume of access to electronic information resources, and evaluations of the efficiency and effectiveness of digital services provided (Kumar N et al., 2024). Relevant case studies include the transformation of library management systems to digital platforms, integration of technology into academic curricula, and strategies to enhance accessibility and sustainability of digital collections within the higher education context (Abad-Segura et al., 2020).

3. Method

This paper draws on qualitative research utilizing online sources (Lindgren et al., 2024) that examine leadership style models within the context of higher education library management in the digital era. A systematic approach was employed, involving article analysis centred on the primary keyword “leadership style model,” with a focus on full-text articles pertinent to the specified topic. The gathered data were then interpreted to elucidate the formats, processes, and underlying principles of leadership style models in this setting. The analytical procedure comprised multiple stages, including coding, theme development, data reduction, data display, data visualization, data reduction, and data presentation.

Figure 1. Workflow of the Digital Literacy Phenomenon in Indonesia



In an effort to develop an effective leadership style model for managing academic libraries in the digital era, this study follows a systematic sequence of stages, beginning with the research design and culminating in the formulation of conclusions. The initial phase involved constructing a research framework grounded in current issues related to digital transformation in library management. The researcher conducted online source searches—including scholarly articles, news reports, and policy documents—to identify various leadership cases relevant to higher education institutions, particularly within the context of library service digitalization.

After identifying relevant cases, data collection proceeded by compiling and recording various digital information obtained from online media and institutional publications. This data was then systematically analysed, beginning with content analysis of news articles, selection of keywords such as “digital leadership,” “library transformation,” and “change management,” followed by filtering for news items genuinely pertinent for further examination. During this stage, coding was applied to the data content to uncover leadership patterns and organizational responses to digital challenges. The resulting codes were subsequently developed into several key themes, including transformational leadership, participative leadership, and digital servant leadership.

The next stage involved data reduction, which entailed filtering out irrelevant information, followed by the preparation of data displays that systematically presented the findings. The summarized data were subsequently visualized through graphs, charts, or concept maps illustrating the relationships between leadership styles and the challenges posed by library digitalization. These visualizations subsequently served as the foundation for interpretation, wherein the researcher assessed the contribution of each leadership style to strengthening library management in the digital era.

Finally, the interpretation results culminated in the formulation of a leadership style model deemed most adaptive and responsive to the dynamics of digitalization within higher education library environments. Therefore, all stages of this research directly contributed to achieving the primary objective: designing a contextual and data-driven leadership model as a strategic approach to strengthening library management amid the ongoing digital transformation.

4. Result

In the fields of management and organization, leadership style models have become a central focus for understanding how leadership influences team performance and dynamics. Leadership styles encompass various approaches and strategies employed by leaders to guide and motivate their team members. This article reviews several leadership style models that have been developed and applied across diverse organizational contexts. Through an in-depth analysis, it aims to provide a comprehensive understanding of different leadership styles, their roles and impacts on organizational effectiveness, as well as their practical implications for managing and cultivating effective leadership.

Changes in leadership styles observed in Delta State, Imo State, and academic libraries highlight the significance of democratic and transformational leadership in managing university libraries during the digital era. Transformational leadership, which accelerates technology integration, is particularly relevant in the library context to enhance services and librarian performance. Developing leadership style models in the digital era should emphasize collaboration, innovation, and digital training to enable academic libraries to adapt to technological changes and improve service efficiency (see Table 1).

Table 1. Articles related to leadership style models

No	Indentity	Title	Method	Result
1	(Uwandu, 2020)	Influence of Leadership Styles on Job Performance of Librarians in Public University Libraries in Imo State.	Survey design and correlational design.	<p>The majority of librarians perform their work at a high level; the relationship between autocratic leadership style and librarian performance is strong, positive, and significant.</p> <p>The relationship between democratic leadership style and librarian performance is also strong, positive, and significant; likewise, the relationship between librarians' own leadership styles and their performance is strong, positive, and significant.</p> <p>In contrast, the relationship between laissez-faire leadership style and librarian performance is low, negative, yet statistically significant.</p> <p>Collectively, the influence of autocratic, democratic, and laissez-faire leadership styles on librarian performance is significant.</p>
2	(Gbotoso & Oboh, 2021)	Leadership Styles and Job satisfaction of Library Personnel in University Libraries in Ondo State, Nigeria.	Descriptive survey research approach.	This study reveals a significant relationship between leadership style and job satisfaction among university library personnel in Ondo State.
3	(Orewa, 2019)	Leadership styles as correlate of job performance in academic libraries in Delta State, Nigeria.	This study employed a descriptive correlational survey design.	<p>The findings of the study indicate that the heads of libraries coordinating these institutions exhibit various leadership traits, some of which are present to a lesser extent. However, in descending order of influence and magnitude, the most dominant and prominent leadership styles are democratic, transformational, autocratic, and laissez-faire, with average positive impacts (\pm SD) of 2.80 (\pm 0.13), 2.60 (\pm 0.28), 2.0 (\pm 0.17), and 1.80 (\pm 0.28), respectively.</p> <p>There is also a low but significant positive correlation</p>

				($r = 0.248$) between leadership style and job performance ($P < 0.05$, 95% CI). The effectiveness of academic libraries may depend on the managerial expertise of library heads, as concluded from this study; therefore, it is recommended that librarians regularly participate in leadership training programs.
4	(Urhefe & Mole, 2021)	Effective leadership Styles Strategies and Job Performance of Librarians in Federal university libraries in South-South, Nigeria.	This study employed a descriptive research design.	Strategies for effective leadership styles to enhance job performance include participatory management approaches, disciplinary measures for poor performance, regular staff training programs, and others.
5	(Ikonne & Susan, 2021)	Exploring The Interaction Between Leadership Style, And Job Performance of Librarian's in Public University Libraries in North-West, Nigeria.	A survey research design was used in this study.	The job performance level of librarians in public university libraries in Northwestern Nigeria is high on a scale of 4. Further details reveal that transactional and transformational leadership styles are the predominant styles practiced in the organizational settings of these libraries, whereas the laissez-faire style is less commonly applied.
6	(Njaramba & Olukuru, 2025)	Surviving a crisis: A multilevel model of leadership styles, employees' psychological capital and organizational resilience.	Cross-sectional survey design.	Transformational Leadership and Directive Leadership significantly influence organizational resilience and employees' psychological capital. Psychological capital also has a significant effect on organizational resilience and partially mediates the relationship between these two leadership styles and organizational resilience.
7	(Farrukh et al., 2025)	Unleashing the Pygmalion's nudge: The roles of leadership styles and leader	Mixed methods.	The conceptual model developed in this study is applicable, and all hypotheses are supported by data collected from hotel employees. This research contributes to the literature on leadership styles and employee work-based

		expectations in driving employees' pro-environmental behaviours.		ecological behaviour (PEB), as well as providing insights for practitioners and academics seeking leadership strategies to promote and achieve environmental sustainability goals.
8	(Espejo-Pereda et al., 2025)	Leadership Styles in Non-Profit Institutions: An Empirical Study for the Validation and Reliability of a Scale in the Latin American Context.	Quantitative method.	Leadership styles in Latin America, due to the scale specifically used for this context, will allow for more accurate and valid assessments. This is crucial for producing effective organizational interventions, fostering the development of authentic leaders, and enhancing the competitiveness of nonprofit institutions.
9	(Ruloff & Petko, 2021)	School principals' educational goals and leadership styles for digital transformation: results from case studies in upper secondary schools	Qualitative method.	Principals with transformational leadership report faster and deeper changes in technology integration compared to those with more transactional styles. Transformational leadership is also associated with quicker technology implementation and a stronger focus on educational goals. This study highlights the benefits of transformational leadership in principals' technology practices.
10	(Kołodziejczyk, 2025)	Impact of the leadership styles of school principals on bullying victimization and perpetration among youth.	Quantitative method.	The charismatic leadership style of principals is associated with increased reports of student bullying, while two other leadership styles play a protective role. The team-oriented style reduces victimization, and the humane-oriented style decreases bullying reports.

Sorce: Online document.

Table 1 presents several research design approaches employed in the studies, such as descriptive correlational survey designs, which aim to describe and analyse relationships between variables without direct manipulation. Cross-sectional survey designs were used to collect data at a single point in time, providing a snapshot of the current conditions. The mixed methods approach combines quantitative and qualitative methods to obtain a more comprehensive understanding, with the quantitative aspect focusing on statistically measurable data, while the qualitative aspect explores deeper insights through interviews or observations. Survey and descriptive research designs aim to describe phenomena or population characteristics without altering existing variables. Regarding

leadership styles, all studies examined the influence of various leadership styles (autocratic, democratic, transformational, laissez-faire, etc.) on librarian performance or job satisfaction. The research locations were university libraries across different states in Nigeria. Most studies reported positive relationships between specific leadership styles and librarian performance or job satisfaction. Differences in dependent variables were noted: Uwandu (2020), Orewa (2019) and Ikonne & Susan (2021) investigated the impact of leadership styles on librarian job performance; Gbotoso & Oboh (2021) examined the effect on library personnel job satisfaction; while Urhefe & Mole (2021) focused on effective leadership strategies to enhance job performance.

Based on the results of several studies examining the influence of leadership styles on librarian performance and job satisfaction across various university libraries in Nigeria, several notable similarities and differences emerge. Uwandu (2020) found that the majority of librarians in state university libraries in Imo State performed at a high level. The findings demonstrated a strong, positive, and significant relationship between autocratic and democratic leadership styles and librarian performance. However, laissez-faire leadership exhibited a low, negative, yet still significant correlation with librarian performance. These results suggest that more directive and participatory leadership approaches are generally more effective in enhancing librarian outcomes, while passive leadership tends to hinder performance. This aligns with broader findings emphasizing the importance of strategic leadership in fostering motivation and accountability. Therefore, university library management should prioritize leadership development programs that promote proactive, inclusive, and goal-oriented leadership styles to improve service quality and staff well-being.

A study by Oluwatoyin et al. (2021) in Ondo State, Nigeria, revealed a significant relationship between leadership styles and job satisfaction among university library personnel. Meanwhile, Orewa (2019), who investigated academic libraries in Delta State, Nigeria, found that democratic leadership was the most dominant and effective style, followed by transformational, autocratic, and laissez-faire leadership. This study also reported a low but significant positive correlation between leadership styles and job performance, emphasizing the importance of leadership training for librarians to enhance academic library effectiveness. Urhefe and Mole (2021), examining federal university libraries in the South-South region of Nigeria, recommended various effective leadership strategies to improve job performance, including participative management, disciplinary actions for poor performance, and regular staff training programs. Similarly, Ikonne and Susan (2021), in state university libraries in Northwestern Nigeria, found that librarian job performance levels were high, with transactional and transformational leadership styles being commonly practiced, whereas laissez-faire leadership was less frequently applied.

The leadership style models identified in this study are highly relevant for developing university library management in the digital era. Transformational leadership plays a crucial role in integrating technology and fostering innovation, while democratic leadership supports collaboration and staff participation, both of which are essential in responding to rapid technological changes. Although autocratic leadership may be useful in emergency situations, laissez-faire leadership proves less effective in environments that demand quick adaptation to digital transformation. Therefore, developing leadership style models that combine transformational and democratic approaches is vital to ensure that academic libraries can adapt to digital changes and continuously meet their users' needs. Furthermore, these models should be flexible, data-driven, and responsive to institutional goals, with a strong emphasis on digital competencies and staff development. A well-balanced leadership approach can empower librarians, enhance service delivery, and support sustainable innovation in academic libraries.

In general, despite variations in dominant leadership styles and the strength of relationships between leadership styles and performance or job satisfaction, all studies concur that leadership styles significantly influence librarian performance and job satisfaction. Furthermore, these findings underscore the importance of selecting appropriate leadership styles and providing leadership training to enhance librarian performance and effectiveness in university libraries in the digital era. In particular, transformational and democratic leadership have been consistently linked to improved job satisfaction, motivation, and innovation among librarians. As digital technologies continue to reshape the academic landscape, university libraries must adopt leadership strategies that are not only adaptable and forward-thinking but also inclusive and empowering. Continuous professional development programs focusing on digital literacy, strategic thinking, and change management can help leaders guide their teams more effectively. Ultimately, cultivating the right leadership environment is key to sustaining library relevance and excellence in a rapidly evolving digital world.

5. Discussion

Based on the findings of several studies analysing the impact of various leadership styles on librarian performance and job satisfaction across different university libraries in Nigeria, significant conclusions can be drawn. Hassnain (2023) observed that leadership styles—whether autocratic, democratic, transformational, or others—exert a strong influence on librarian performance and job satisfaction. Although variations exist in the dominant leadership styles identified in each study, as reported by Ikonne and Susan (2021), Oluwatoyin et al. (2021), Orewa (2019), Urhefe and Okotie (2021), and Uwandu (2020), all agree that appropriate leadership styles can enhance librarian effectiveness. Almahasneh et al. (2023) and Tang (2019) further emphasize the importance of considering organizational context and individual needs when selecting and implementing suitable leadership styles, as well as the critical role of ongoing leadership training to support improvements in performance and effectiveness within university libraries.

In summary, despite variations in dominant leadership styles and the strength of relationships between leadership styles and librarian performance or job satisfaction, all studies agree that leadership styles significantly influence librarian performance and job satisfaction. They also emphasize the importance of selecting appropriate leadership styles and providing leadership training to enhance librarian performance and effectiveness in university libraries. These findings further underscore the urgency of developing leadership models that are adaptive to the challenges of the digital era—models that integrate technology, foster innovation, and sustainably empower librarians. Future leadership frameworks should also consider contextual factors such as institutional culture, digital literacy levels, and evolving user expectations to ensure more responsive, inclusive, and effective library management practices in a rapidly changing academic landscape.

One significant limitation of the research findings presented is their exclusive reliance on survey and correlational survey designs. While these methods facilitate the identification of relationships between variables, they do not allow for establishing causality or capturing the complex dynamics that may underlie such associations. Furthermore, the narrow geographic focus—limited exclusively to Nigeria—may constrain the generalizability of the results to wider regional or global contexts. Additionally, most studies tend to examine a single dependent variable, such as performance or job satisfaction, without accounting for the intricate interactions among multiple factors that could influence these outcomes. There is also considerable potential to expand future research by employing mixed-methods or

experimental designs to gain a more comprehensive understanding of the true impact of leadership styles on librarians and overall library effectiveness.

Based on various studies conducted in university libraries across Nigeria using survey or correlational survey designs, it has been found that leadership styles significantly influence librarian performance and job satisfaction. These studies generally reveal positive relationships between democratic and transformational leadership styles with both performance and job satisfaction, whereas laissez-faire leadership tends to exhibit negative or weak associations. Uwandu (2020), Orewa (2019), and Ikonne and Susan (2021) emphasize the impact of leadership styles on job performance, while Oluwatoyin et al. (2021) focus on job satisfaction, and Urhefe and Okotie (2021) highlight the importance of effective leadership strategies such as participative management and staff training. Despite differences in research focus and locations, all studies concur on the critical importance of applying appropriate leadership styles and the necessity of leadership training to enhance librarian performance and effectiveness, particularly in addressing the challenges of library management in the digital era.

Recommendations for future research may focus on several aspects to deepen the understanding of the influence of leadership styles on librarian performance and job satisfaction within the context of university libraries in Nigeria. First, studies could further explore how contextual factors, such as organizational culture or management structure, moderate the relationship between leadership styles and observed outcomes. Second, longitudinal research may be conducted to examine how changes in leadership styles over time affect the dynamics of librarian performance and job satisfaction. Third, there is a need to expand the geographical scope of research to compare variations in the impact of leadership styles across university libraries in different regions of Nigeria. Lastly, intervention studies could assess the effectiveness of leadership training programs tailored specifically to the library context in enhancing librarian performance and job satisfaction. In this way, future research can offer deeper and more practical insights for developing more effective leadership practices in Nigerian university libraries.

6. Conclusion

Research analysing the influence of leadership styles on librarian performance and job satisfaction in Nigerian university libraries reveals notable similarities and differences. All studies employed survey or correlational survey designs, focusing on various leadership styles such as autocratic, democratic, transformational, and laissez-faire, alongside different dependent variables including performance or job satisfaction. The majority of the research identified positive relationships between certain leadership styles and librarian performance or job satisfaction. However, a key limitation of these studies is their exclusive reliance on correlational survey methods, which cannot establish causality or capture the complex dynamics underlying these relationships. Additionally, the limited geographical scope—restricted solely to Nigeria—may affect the generalizability of the findings to broader regional or global contexts. Moreover, the studies tend to focus on single dependent variables without accounting for the complex interactions among other influencing factors.

For future research, it is recommended to explore contextual factors that may moderate the relationship between leadership styles and librarian work outcomes, conduct longitudinal studies to understand changes in leadership styles over time, broaden the geographical scope to compare leadership effects across different regions of Nigeria, and evaluate the effectiveness of leadership training programs in enhancing librarian performance and job satisfaction. This approach is expected to provide deeper and more practical insights for developing effective leadership practices in Nigerian university libraries

and potentially in other contexts as well. This approach is expected to provide deeper and more practical insights for developing effective leadership practices in other contexts as well, such as academic institutions in developing countries where similar organizational and cultural dynamics may influence leadership effectiveness and employee outcomes.

Research on the influence of leadership styles on librarian performance and job satisfaction in Nigerian university libraries indicates that democratic and transformational styles contribute positively, although findings are limited by the exclusive use of correlational survey methods and a localized context. These results provide a crucial foundation for developing leadership models in the digital era, emphasizing the need for participatory leadership that is adaptive to technology and supportive of human resource development. Therefore, leadership models for academic libraries in the digital age must be designed comprehensively to effectively respond to the evolving challenges faced by these organizations, including digital transformation, changing user needs, and workforce expectations.

Author Contribution Statement

Contributions of the authors in this article: Cut Afrina contributed as concepts, data analyzers, and collecting data; Anis Masruri and Rona Putra contributed as the drafter of the manuscript and collecting data. Asmaul Husna, Akhmad Fauzin and Zaizul Ab Rahman contributed critically revising the article. Author agree to take responsibility for all aspects of this work.

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