Original Research Article

Assessment of the effectiveness of consortium of Tanzania Universities and Libraries (COTUL) initiatives in academic libraries

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Abstract

This study assesses the effectiveness of the Consortium of Tanzania Universities and Libraries (COTUL) initiatives in enhancing services of academic libraries in Tanzania universities. The research sought to evaluate the impact of COTUL's collaborative efforts on resource sharing, library management practices, and overall user satisfaction within academic libraries. By using a mixed-methods approach specifically the explanatory sequential design using sample size of 120 respondents, the study first collected and analysed quantitative data, followed by qualitative data to provide a deeper understanding of the results. This approach allowed for a comprehensive evaluation of COTUL's initiatives and their impact on academic libraries, the research identified that COTUL has made significant contributions to improving resource sharing and access to electronic resources among member Institutions. However, it also highlighted several challenges, including inadequate funding, insufficient infrastructure, and varying levels of participation from different universities. Despite these hurdles, the study concluded that COTUL's initiatives have made a substantial positive impact on library services across Tanzania. The findings suggest the need for greater coordination, improved funding, and better strategic planning to further enhance the effectiveness of the consortium in supporting academic libraries.

Keywords: COTUL, Resource Sharing, Library Management

1. Introduction

The evolution of academic libraries in supporting higher education has been significantly shaped by the growing reliance on information technology and digital resources. In today's academic environment, libraries no longer serve merely as repositories of physical books but have transformed into dynamic centers that provide access to digital resources, databases, and e-books, which play a crucial role in enhancing research, teaching, and learning (Smith, 2020). This transition is not only about offering physical spaces for studying but also about providing essential tools and platforms for students, faculty, and researchers to access scholarly materials remotely. As these libraries take on increasingly diverse roles, they are becoming instrumental in bridging the knowledge gap, particularly in regions where access to academic resources is limited (Jones & Brown, 2019).[1-5] The idea of collaboration among academic libraries has emerged as a key strategy in improving access to resources and services. In many parts of Africa, including Tanzania, resource-sharing initiatives have been developed to address the challenges faced by individual libraries. By forming consortia, libraries can consolidate their resources, thereby making high-cost academic materials more accessible (Mwangi, 2021). The Consortium of Tanzania Universities and Libraries (COTUL), for instance, was established to tackle the issue of fragmented access to information across Tanzanian Academic Institutions. This initiative enables libraries to share not only physical resources but also digital content such as journals, e-books, and databases, making it possible for libraries with limited budgets to access materials they would otherwise not be able to afford (COTUL, 2022).

Despite these efforts, the effectiveness of such collaborations in improving the overall library experience remains under scrutiny. While initiatives like COTUL have undeniably opened up new avenues for resource access, the

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extent to which these collaborations have successfully addressed longstanding issues such as outdated collections, insufficient staffing, and underfunding is still uncertain (Nguyen, 2023). Furthermore, although many libraries have adopted technology-driven solutions to enhance service delivery, there is still a need for ongoing training and capacity building to fully leverage these advancements (Khan & Patel, 2022). Therefore, understanding the real impact of COTUL's initiatives on library services is critical in determining how effectively these collaborations can reshape the academic library landscape in Tanzania and contribute to the country's broader educational objectives.

2. Problem Statement

Several factors contribute to the challenges faced by COTUL, including inconsistent participation from its member Institutions, which undermines the potential for collaboration and resource sharing (Tina, 2023). Additionally, financial constraints have limited the ability of COTUL to fully implement and sustain its programs, resulting in inadequate support for some of its key initiatives (Mushi, 2023). Technological challenges, such as the lack of up-to-date infrastructure and technical expertise, further complicate the ability of academic libraries to adopt and integrate modern library management systems (Hassan, 2024). The aforementioned barriers have significantly hindered the COTUL's capacity to offer the necessary services and resources to academic libraries across the country.

Moreover, there is a lack of comprehensive studies that assess COTUL's impact on academic libraries, creating a significant gap in understanding the true benefits and challenges of such initiatives within the Tanzanian context (Mushi, 2024). Without a thorough evaluation, it is difficult to gauge the extent to which COTUL has succeeded in improving the quality of library services and resource access (Hassan, 2024). This knowledge gap limits the development of strategies to strengthen the consortium and its role in transforming academic libraries in Tanzania (Mushi, 2023). Therefore, more research is needed to investigate how COTUL can overcome these challenges and effectively enhance the functioning and impact of academic libraries across the nation.[6-9]

3. Objectives of the Study

The main objective of the study is to assess the Effectiveness of Consortium of Tanzania Universities and Libraries (COTUL) Initiatives in Academic Libraries. The specific objectives are to:

1. Evaluate the impact of COTUL initiatives on resource sharing and access to academic materials.
2. Assess the role of COTUL in improving library management and user satisfaction in Tanzanian academic libraries.
3. Identify challenges and barriers to the full implementation of COTUL's initiatives.

3.1. Scope

This study focused on academic libraries in Tanzania, particularly those that are members of the Consortium of Tanzania University Libraries (COTUL). The research aimed to examine both library staff and users to understand the broader impact of the consortium on library operations and user experiences. The scope was specifically limited to universities within the COTUL network, as it sought to explore the benefits and challenges faced by these Institutions in relation to shared resources and collaborations.

4. Literature Review

Previous studies have highlighted the importance of library consortia in facilitating resource sharing and improving access to academic resources, especially in resource-constrained environments (Sanya & Wokabi, 2020). In many developing regions, access to scholarly resources like journals, books, and databases is often limited due to budget constraints. Library consortia, such as COTUL, play an important role in bridging this gap by pooling resources from various Institutions to provide collective access to expensive electronic resources and publications.

This collective approach helps Institutions access databases and journals that would otherwise be unaffordable for individual libraries, ensuring that academic staff and students have the necessary tools to conduct research and learning effectively (Gekara & Sifuna, 2022). Consortia also allow libraries to benefit from negotiated subscription deals, which often result in lower costs compared to individual purchases. Research by Mwinyi (2023) demonstrated that COTUL's initiatives, particularly in promoting electronic resource sharing, have had a significant positive impact on library services, enhancing resource availability and user satisfaction. This has not only improved access to academic resources but has also helped libraries in Tanzania to better serve the information needs of their communities.

Furthermore, consortia have been associated with improved library management practices through shared expertise and joint training programs (Kato & Nahamya, 2021). As libraries work together within a consortium, they share knowledge, best practices, and experiences that can lead to improved service delivery and operational efficiency. COTUL, for example, has organized various workshops, seminars, and conferences aimed at improving the skills of library staff. These events provide professional development opportunities for librarians, enabling them to stay updated on the latest trends in information management, technology, and library services.

The collaboration within the consortium also promotes the exchange of ideas and solutions to common challenges faced by academic libraries. Staff members learn from each other and adapt successful strategies to enhance their own library's operations. In addition, consortia help libraries to

pool their limited resources for purchasing shared resources, such as e-books and journals, and provide access to digital tools and platforms. However, despite these benefits, challenges remain. One of the main concerns is the financial sustainability of consortia, as funding models may not always be robust enough to support long-term initiatives. Equity in participation is also an issue, with some Institutions struggling to fully engage due to differing levels of commitment, capacity, and access to resources. Moreover, the distribution of resources within the consortium can sometimes be uneven, with larger Institutions benefiting more from shared resources than smaller or less-equipped ones (Sifa, 2022).

There are several gaps in the existing literature, particularly regarding the long-term effects of COTUL initiatives on academic libraries' overall performance. While previous studies have assessed the immediate benefits of consortia, such as improved resource access and enhanced library management, there is a lack of research on how these initiatives influence libraries' long-term outcomes, including their sustainability and overall effectiveness. For example, while COTUL's efforts in resource sharing have been successful in increasing access to scholarly materials, it is unclear whether this has translated into lasting improvements in academic performance or research productivity in Tanzanian universities.

Additionally, the Institutional barriers that may impede the success of consortia initiatives have not been adequately explored. These barriers could include issues related to administrative support, technological infrastructure, and the adaptability of library staff to new technologies and systems. Furthermore, there is limited research on the specific challenges faced by libraries in Tanzania, including those related to infrastructure, staff training, and financial constraints. Understanding these barriers and gaps is important to ensure that consortia initiatives can be more effective in the future. Therefore, further studies are needed to examine the Institutional factors influencing the success of consortia in Tanzania and to assess their long-term impact on the overall performance of academic libraries.

5. Materials and Methods

This study adopted a mixed-methods approach as this approach was chosen to provide a comprehensive understanding of the effectiveness of COTUL (Consortium of Tanzania University Libraries) initiatives. By incorporating both types of data, the research was able to capture the broader picture of how COTUL's resource-sharing efforts impact various stakeholders. A mixed-methods design ensures that both numerical data and narrative insights complement each other, enriching the overall findings. The research aimed to provide a balanced analysis by integrating statistical measurements with detailed

descriptions. This allowed for a more thorough assessment of COTUL's effectiveness and its perceived value.

The research was conducted across several Tanzanian universities, selected from both urban and rural areas, to ensure a representative sample of COTUL members. This diverse sampling ensured that the experiences and perspectives of libraries in different settings were included, providing a more accurate reflection of the consortium's reach and impact. The inclusion of both urban and rural universities allowed the study to examine potential disparities in access, resource sharing, and usage between different geographic areas. A variety of universities were involved in the study, ranging from well-established Institutions in urban centers to smaller, rural-based ones. This strategy enabled the study to identify any regional variations in the perception and effectiveness of COTUL's initiatives.

The target population for this study included library staff and administrators, as they represent the primary stakeholders in the COTUL network and play a critical role in the consortium's activities and success. Library staff and administrators provided insight into the operational aspects of COTUL, including the initiatives and programs that facilitated the availability of information resources. While academic library users are important stakeholders in terms of attaching value to the resources provided, they were not included in this study. This decision was made because users may not be fully aware of the specific initiatives or programs that enable the availability of these resources, and their inclusion might not provide the necessary depth of understanding regarding the operational and strategic dimensions of COTUL. The participants were chosen to reflect a wide range of experiences and viewpoints from those directly involved in the management and implementation of COTUL's programs, ensuring a comprehensive evaluation of the consortium's impact.

A random sampling technique was used to select participants, ensuring a diverse range of perspectives from across the target population. This method was chosen to minimize selection bias and ensure that each participant had an equal chance of being included in the study. By using random sampling, the study aimed to capture the full spectrum of experiences, opinions, and feedback from library staff, administrators, and users. This approach also helped in obtaining a representative sample of the larger population. The sampling method enhanced the reliability and validity of the study's results, ensuring that they could be generalized to the wider population of COTUL members.[10-14]

Data was collected using structured surveys for library users and semi-structured interviews for library staff. The surveys allowed for the gathering of quantitative data on the frequency of resource usage, user satisfaction, and perceptions of the consortium's impact. These structured surveys ensured that consistent data was collected from all participants, making it easier to compare responses and

identify trends. Meanwhile, the semi-structured interviews with library staff provided an opportunity for in-depth exploration of the challenges and opportunities they faced in implementing COTUL initiatives. This combination of structured and semi-structured methods allowed for both breadth and depth in data collection.

Data analysis involved both statistical techniques and thematic analysis to examine the results. The quantitative data collected from the surveys was analyzed using descriptive statistics, which helped summarize the data and identify key patterns and trends. Descriptive statistics provided a clear picture of how library users interacted with COTUL resources and how they perceived the consortium's impact. The qualitative data from the interviews was coded and categorized into themes related to this study's objectives. This thematic analysis helped to identify common challenges and opportunities faced by library staff, providing valuable insights into the practical aspects of implementing the consortium's initiatives.

6. Results

6.1. COTUL initiatives on resource sharing and access to academic materials

The study revealed that COTUL's initiatives significantly enhanced resource sharing and increased access to academic materials, particularly electronic resources like e-journals and e-books. A notable percentage of users indicated that they benefited from these initiatives, which led to improved access to essential academic resources.
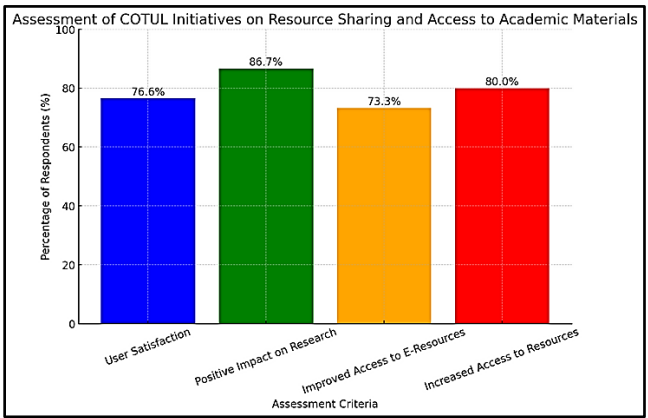

Figure 1: Source: Field data, 2024

The findings clearly indicate that COTUL's collaborative efforts have notably improved access to electronic resources among users in Tanzanian academic libraries. The high percentage of respondents who reported increased access to journals and e-books suggests the consortium's success in enhancing resource availability. Additionally, many users acknowledged that COTUL's initiatives have positively impacted academic research. Library staff also reflected satisfaction with the access provided through the consortium, affirming its value in facilitating resource sharing across the participating

Institutions. This trend is consistent with findings from Mwinyi (2023), which emphasized the role of consortia in facilitating access to academic materials across the African continent.

6.2. Interview response

"Many users expressed that COTUL's initiatives have made a considerable difference in their ability to access essential academic resources. Several noted that without COTUL, accessing journals and e-books would have been far more challenging, particularly for those from resource-constrained Institutions. Overall, the impact has been largely positive for academic research."

Overall, the study demonstrates that COTUL's initiatives have made a significant contribution to enhancing resource sharing and improving access to academic materials, especially electronic resources like journals and e-books. The results show that a majority of users have benefited from the consortium's efforts, which have led to greater availability of important academic resources. This improvement has positively impacted academic research and has been well-received by library staff, who expressed satisfaction with the increased access facilitated by COTUL. The findings align with existing literature on the value of consortia in promoting resource sharing, underscoring the important role COTUL plays in supporting academic libraries in Tanzania and beyond.

COTUL's initiatives have played a great role in improving library management and user satisfaction within Tanzanian academic libraries. Library staff reported greater access to professional development opportunities such as workshops and training sessions, which helped enhance their management skills and the overall quality of library services.

Table 1: Role of COTUL in improving library management and user satisfaction in tanzanian academic libraries (n=120)

Initiative/Outcome	Number of Responses	Percentage
Improved management skills	30	25.0%
COTUL's workshops contributed to library staff development	34	28.3%
Users expressed increased satisfaction with library services	26	21.7%
COTUL initiatives have improved overall library services	30	25.0%
Total	**120**	**100%**

Source: Field Data, 2024

The findings indicate that COTUL has made significant strides in improving both library management and user

satisfaction in Tanzanian academic libraries. The data shows that a most of library staff 30 (25.0%) reported enhanced management skills, while 34 (28.3%) of library staff credited COTUL's workshops for their professional development and 26 (21.7%) of users expressed increased satisfaction with the services provided. Furthermore, 30 (25.0%) of respondents acknowledged that COTUL's initiatives had contributed to the improvement of overall library services. These findings underscore the importance of continued investment in professional development through programs like those offered by COTUL, which has proven to be a key factor in enhancing the quality and effectiveness of library management and in fostering a more positive user experience.

6.3. Interview response

Library staff highlighted the transformative effect of COTUL's professional development programs. They reported that the workshops helped them refine their skills, leading to more efficient library management. Users also expressed their satisfaction with the improved quality of services, emphasizing better library experiences overall."

Library staff and users both acknowledged the positive influence of COTUL's professional development programs, including workshops and training sessions. Many respondents reported enhanced management skills and an overall improvement in library services. This has led to higher user satisfaction levels. The provision of these professional development opportunities is seen as a critical factor in improving the effectiveness of library management, with significant benefits for both staff and users. This aligns with the study of Sanya and Wokabi (2020), which discussed how consortia positively impact library services in resource-constrained environments.

7. Challenges and Barriers to the Implementation of COTUL's Initiatives

Despite the positive impact of COTUL's initiatives, the study identified several challenges and barriers that hindered the full implementation of its goals. These included limited funding, inconsistent participation from member Institutions, and infrastructural disparities among the libraries. Addressing these issues is important for ensuring the sustainability and effectiveness of the COTUL's initiatives.
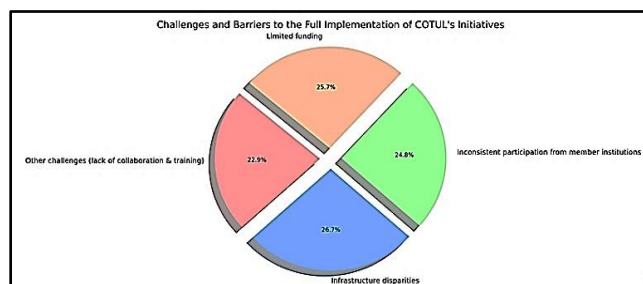

Figure 2: Source: Field data, 2024

The challenges faced by COTUL's initiatives are primarily related to limited funding, inconsistent participation from member Institutions, and infrastructural gaps between libraries. A large percentage of respondents identified these as significant barriers that affected the successful implementation of the consortium's goals. The lack of uniformity in participation and disparities in infrastructure across Institutions are major factors preventing the full realization of the benefits intended by COTUL. Addressing these challenges would be important for enhancing the sustainability and impact of the consortium's initiatives.

7.1. Interview response

"Several respondents noted that limited funding has significantly hampered the progress of COTUL's initiatives. They also pointed out that some Institutions are not as consistent in their participation, which affects the overall cohesion and impact of the consortium. Additionally, disparities in infrastructure across Institutions were seen as another major barrier."

The overall findings from the study underscore the significant challenges and barriers that have hindered the implementation of COTUL's initiatives. Limited funding remains the most pressing issue, as it affects the availability of resources necessary for the successful execution of projects. Inconsistent participation from member Institutions further compounds this problem, leading to a lack of cohesion and diminished collective impact. Infrastructural disparities across libraries create uneven opportunities for implementation, preventing some Institutions from fully benefiting from the consortium's initiatives. Additionally, the absence of collaboration and adequate training programs among the Institutions also exacerbates these challenges. To ensure the long-term sustainability and success of COTUL's initiatives, addressing these barriers is essential, and efforts should focus on securing stable funding, fostering consistent participation, and bridging infrastructural gaps across member Institutions.

8. Discussion

The findings of this study indicate that COTUL's initiatives have made noteworthy contributions to academic libraries in Tanzania, particularly in enhancing resource sharing and library management. COTUL's efforts have fostered a more collaborative approach, allowing libraries to share resources that would otherwise be inaccessible due to individual financial constraints. This has allowed for a broader range of academic materials to be made available across participating Institutions, improving access to knowledge and supporting academic development. Despite these positive outcomes, the study also identifies several challenges that have hindered the full realization of these benefits. Financial limitations remain a significant barrier, as many participating Institutions struggle to meet the financial demands required to sustain and

expand these initiatives. Additionally, the level of commitment from some universities has been inconsistent, with varying degrees of engagement from Institutions. This aligns with the observations made by Gekara and Sifuna (2022), who found that consortia frequently encounter issues related to equitable participation and funding, which complicates efforts to achieve the desired outcomes. These factors underline the need for a more coordinated approach to resource sharing and management within library consortia in Tanzania and similar contexts.

The implications of these findings are considerable for the future development of library consortia not only in Tanzania but across other African countries as well. The challenges identified in this study point to a critical need for increased investment in the infrastructure of consortia to ensure that they can meet the growing demands of academic libraries. Additionally, it is essential for universities and other stakeholders to become more actively involved in ensuring the sustainability and scalability of consortia initiatives. Without such involvement, the benefits of resource sharing and improved library management cannot be fully realized.

The study further suggests that future research should focus on exploring the long-term impacts of consortium participation on library performance and academic outcomes. This is important as it would provide insights into whether the advantages observed in the short term can be sustained over time and whether they translate into tangible improvements in academic achievement. The findings also underscore the need for policy makers to recognize the importance of library consortia and allocate adequate resources to support their continued growth and development.

9. Limitations

One of the key limitations of this study was the restricted geographical scope, as it focused primarily on a select number of universities within Tanzania. While the findings provided valuable insights into COTUL's initiatives within these Institutions, a broader sample that included universities from different regions of the country could have offered a more nuanced understanding of the consortium's impact. Such a sample would have been more representative of the diverse challenges and opportunities faced by academic libraries in different areas, providing a clearer picture of the consortium's overall effectiveness.

Additionally, the study relied on self-reported data, which may have introduced certain biases in the responses, particularly from library staff who may have had vested interests in portraying the initiatives in a more favorable light. Self-reported data was susceptible to social desirability bias, where respondents may have provided answers that they believed aligned with what was expected of them or that reflected well on their Institution. This limitation had to be considered when interpreting the results, as it may have

affected the objectivity and reliability of the findings. Future studies could mitigate this by incorporating multiple data sources, such as direct observations or objective performance metrics.

Another notable limitation was the absence of longitudinal data, which would have allowed for a deeper understanding of the long-term effects of COTUL's initiatives on both the academic libraries and their users. Longitudinal studies, which track changes over time, are particularly useful in understanding the sustained impact of interventions. In the case of library consortia, such a design would have helped to assess whether the improvements in resource sharing and library management led to long-term benefits for students, faculty, and researchers. Without this data, it was difficult to determine whether the positive outcomes observed were temporary or whether they contributed to lasting improvements in library services.

10.1. Initial limitation

The study's reliance on a limited sample size and its focus on a specific timeframe further constrained the generalizability of the findings. A larger and more diverse sample, coupled with an extended timeframe, would have strengthened the validity of the results and provided a more comprehensive understanding of COTUL's impact across different contexts.

Future research could address these gaps by expanding the scope of the study to include a larger and more diverse sample of academic libraries. Additionally, employing a longitudinal approach would offer valuable insights into the lasting impact of consortium participation, helping to guide future policy and investment decisions.

10. Conclusion

In conclusion, the study affirms that COTUL's initiatives have made a significant positive impact on the development of academic library services in Tanzania. Notably, the areas of resource sharing and library management have been particularly enhanced, fostering greater collaboration among Institutions and improving access to resources for students and researchers. These contributions have been great in bridging the resource gaps that many academic libraries face due to financial constraints. However, the full potential of these initiatives has not been fully realized due to several challenges, including financial limitations, varying levels of participation from Institutions, and infrastructural issues. These obstacles continue to impede the ability of COTUL to expand and strengthen its initiatives in a way that benefits all participating Institutions equally.

11. Recommendations

Seek additional funding and support

COTUL should actively pursue additional funding and support from Government agencies, international

organizations, and universities themselves. A more stable and predictable financial base would enable the consortium to overcome existing barriers and enhance its effectiveness in supporting library services across Tanzania.

12.1. Conduct long-term research

Future research should focus on examining the long-term effects of consortium participation on library services and academic outcomes. This research would provide a clearer understanding of the enduring benefits of consortia and help identify strategies for overcoming challenges, particularly in resource-limited settings.

12. Strengthen Consortium Role in Evolving Higher Education Landscape

As libraries in Tanzania and other African countries continue to adapt to the rapidly changing landscape of higher education, COTUL should reinforce its role in improving access to resources and strengthening library management. Addressing the challenges identified in this study will enable COTUL to better position itself for continued meaningful contributions to academic libraries in Tanzania.

13. Ensure Sustainable Contributions to Academic Libraries

By implementing the above recommendations, COTUL can ensure that academic libraries in Tanzania remain vibrant centers of learning and research for years to come.

14. Source of Funding

None.

15. Conflict of Interest

None.

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