



NATIONAL
LIBRARY
NLSL OF SRI LANKA



ICNATLIB 2024

3rd International Research Conference
of National Library of Sri Lanka

"Information for Development: A Way Forward to Address
Current Global Challenges"

PROCEEDINGS

6th September, 2024
Colombo, Sri Lanka

National Library & Documentation Services Board
Ministry of Education

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OF NATIONAL LIBRARY OF SRI LANKA 2024**

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**National Library & Documentation Services Board
Ministry of Education**

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MESSAGE FROM THE MINISTER OF EDUCATION

I am pleased to extend my warmest felicitations to the 3rd International Research Conference 2024 of the National Library & Documentation Services Board, centered around the theme, "Information for Development: A Way Forward to Address Current Global Challenges."



Education and information are among the most powerful tools for national development and tackling global challenges. By investing in these critical areas and ensuring they are accessible to all, countries can foster sustainable growth, promote social progress, and contribute meaningfully to solving some of the world's most pressing issues.

The Ministry of Education (MoE) is deeply committed to ensuring equal access to quality education across the country. As Sri Lanka focuses on developing its human capital, the education system bears a significant responsibility in achieving the nation's economic development goals. Therefore, the MoE is actively working to transform the entire education system, laying a solid foundation for a future knowledge-based economy with the full participation of all stakeholders. The government has already taken several measures to support this transformation by formulating a national education policy, modernizing curricula, reforming testing and evaluation systems, and implementing various programmes aimed at enhancing primary and secondary education. These efforts include strengthening science, mathematics, technology, ICT education, as well as English and foreign languages. I am confident that through these initiatives, we will meet the future demands of both global and local labor markets.

I trust that the 3rd International Research Conference will provide a valuable international platform for academics, researchers, professionals, and graduate and postgraduate students to share their research experiences, exchange knowledge, and foster collaborations that strengthen partnerships across disciplines.

I extend my heartfelt best wishes to the National Library & Documentation Services Board, the organizing committee, and all participants of the event for their unwavering commitment to advancing knowledge through this important forum.

DR. A. D. SUSIL PREMAJAYANTHA (M. P.)

Hon. Minister of Education
Leader of House, Sri Lanka Parliament

MESSAGE FROM THE SECRETARY TO THE MINISTRY OF EDUCATION

It is a privilege to extend this message to the 3rd International Research Conference (ICNATLIB 2024) organized by the National Library & Documentation Services Board (NLDSB) under the theme "Information for Development: A Way Forward to Address Current Global Challenges." I believe this is a highly relevant and timely theme for such an academic forum.



Education is a crucial factor in a country's development and the establishment of a prosperous future. It serves as a powerful engine for uplifting the socioeconomic status of a nation. The government is committed to providing the necessary investments in education, in line with international standards, to improve the quality of education and enhance student learning outcomes.

Both education and information are foundational to development, supporting personal growth, economic advancement, social progress, and improved governance. By investing in these areas, we can achieve more equitable and sustainable development outcomes. Education and information drive development through research and publication by generating new knowledge, informing policy, enhancing education, and fostering collaboration. By prioritizing research and ensuring the widespread dissemination of findings, societies can effectively address challenges and drive sustainable progress.

I extend my heartfelt congratulations to the National Library & Documentation Services Board on its 3rd International Research Conference and eagerly anticipate the outcomes of this intellectual forum. I am confident that this event will provide an enriching experience for all paper presenters and participants.

J. M. THILAKA JAYASUNDARA

Secretary

Ministry of Education

MESSAGE FROM THE CHIEF GUEST

The conference theme of "Information for Development: A Way Forward to Address Current Global Challenges" is one of the most important of our time. Only with an engaged and informed public can progress be made. Top-down models have failed. The future belongs to the people so that the current global challenges can be met.



Good governance is needed too. Ethical leaders who do the right thing. Track One solutions (or government-to-government relations) are still important. Let us hope that enlightened leaders who serve in Sri Lanka, the U.S., and elsewhere will support people-oriented policies that center well-being and sustainability. It starts with each of us looking in the mirror and doing what we can in our small way.

For a decade before taking my current position serving as Executive Director of United States-Sri Lanka Fulbright Commission I taught International Sustainable Development. My students in the U.S., South Asia and Southeast Asia all seemed to be looking for new ways to address the challenges (and opportunities) of our age: population, resources, technology, information, conflict, economies, and governance. I always said, "Start with good information. Get out of your social media bubbles. Engage with people who think and live differently from you. Only through collaboration will these innovative solutions be created."

At Fulbright Sri Lanka our mission is to build bridges of understanding and peace between the United States and Sri Lanka through educational, artistic and professional exchanges. People-to-people cultural connections touch the heart. We must continue and strengthen that in a world where too many of us hide behind screens.

Disinformation and misinformation rules the day. But I still have hope. Hope that good, smart, committed young people (with a few of us older folks mentoring and cheering them on) can make a difference.

Join with me in commending the organizers of this important and timely conference. The time is now. The leaders are us. The way forward is good information that will lead to positive development here in Sri Lanka and across the Earth.

DR. PATRICK McNAMARA

Executive Director

United States - Sri Lanka Fulbright Commission

MESSAGE FROM THE GUEST OF HONOUR

It is with great pleasure that I extend my warmest wishes to the National Library and Documentation Services Board (NLDSB) as it convenes its 3rd International Research Conference on the 6th of September, 2024. The chosen theme, "Information for Development: A Way Forward to Address Current Global Challenges," is both timely and critical, reflecting the pivotal role that information plays in navigating the complex issues our world faces today.



I am deeply honored to have been invited as the Guest of Honour for this prestigious event. The NLDSB has consistently demonstrated its commitment to advancing knowledge and fostering dialogue on key global issues, and this conference is yet another testament to its unwavering dedication. The gathering of such a diverse group of scholars, library professionals, and policymakers offers a unique opportunity to explore innovative insights and strategies that can contribute significantly to global development.

To the academics and librarians presenting their research and papers, I commend your hard work and dedication. Your contributions are essential in shaping the future of information science and its application in addressing the challenges we face. I am confident that the discussions and outcomes of this conference will inspire meaningful action and drive positive change.

Once again, I thank the NLDSB for this esteemed opportunity and wish the conference every success.

SENIOR PROFESSOR NILANTHI DE SILVA

Vice Chancellor

University of Kelaniya

MESSAGE FROM THE KEYNOTE SPEAKER

It is with great pleasure that I send this message on the occasion of the 3rd International Research Conference of the National Library of Sri Lanka to be held in Colombo on the 6th of September, 2024. This conference is highly relevant for today in view of the unprecedented transformation of information and communication landscape that we witness across the globe including Sri Lanka.



Information is a critical factor influencing and guiding, among other things, the development process in any country. That is why, in the recent past, development communication was considered by media institutions as an important part of their programming. On the other hand, dissemination of information has not been entirely confined to mass media institutions as it also happens through various other channels such as education, publishing houses bringing out publications of diverse kind such as books, journals, magazines and newspapers. With digitization of information thanks to the ICT revolution, channels of dissemination of information including social media have proliferated across the world in recent decades. All these developments have resulted in an unprecedented broadening and deepening of communication processes.

Against the above background, reliance on printed reading material like books, magazines and newspapers to access information shows a declining trend. Social, cultural and other implications of this trend are no doubt complex and wide ranging and these deserve systematic and careful investigation by social scientists and others. It is hoped that this conference will open new avenues of investigation of some of the highly significant trends in Sri Lanka in the above regard.

Last but not least, I wish to record my appreciation of the efforts of the organizing committee of the conference for this very timely initiative.

EMERITUS PROFESSOR SIRI HETTIGE (Sociology)

University of Colombo
Chairman, Working Committee on Social Sciences at
the National Science Foundation, Sri Lanka

MESSAGE FROM THE CHAIRMAN, NLDSB

As the Chairman of the National Library & Documentation Services Board (NLDSB), it is an honour to note that the 3rd International Research Conference (ICNATLIB 2024) will be held on 6th September 2024. Conducting and promoting research in the field of library and information science in Sri Lanka is one of the primary responsibilities of the NLDSB. To fulfill this responsibility, the Research Division of the NLDSB implements a number of projects annually. Conducting research and sharing findings are among our key activities. This conference represents an important milestone in promoting research among library professionals in Sri Lanka.



The world today faces a myriad of global challenges, including climate change, pandemics, and conflict. Simultaneously, many developing countries are grappling with shrinking growth prospects, weakening investment, and rising debt. Addressing these global challenges requires a multifaceted approach that combines innovative thinking, international cooperation, and sustainable practices. It is essential to establish a strategic framework for moving forward, and by adopting these strategies, the global community can make meaningful progress in tackling the complex and interconnected challenges of our time.

I believe that the 3rd International Research Conference will provide an excellent opportunity to disseminate modern knowledge among academics, researchers, professionals, graduates, and postgraduate students. This forum will facilitate the sharing of research experiences and foster collaboration, thereby strengthening partnerships among professionals.

I would like to extend my deepest gratitude to the Honorable Minister of Education, the Secretary to the Ministry of Education, our Chief Guest, Guest of Honour, Keynote Speaker, Guest Speaker, session chairpersons, and paper reviewers for their invaluable guidance and support in organizing this event. On behalf of the NLDSB,

I also offer my heartfelt thanks to the Director General of the NLDSB, the Director (NLDC), the staff of the Research Division, and the organizing committee of the conference for their commitment and tireless efforts in making this event a success.

Finally, I wish all the paper presenters and participants every success in their endeavours

PROF. NANDA DHARMARATHNA

Chairman

National Library and Documentation Services Board

MESSAGE FROM THE DIRECTOR GENERAL, NLDSB

It is with great pleasure that I convey this message at the 3rd International Research Conference (ICNATLIB 2024) of the National Library of Sri Lanka. The main theme of the conference, “Information for Development: A Way Forward to Address Current Global Challenges,” will be explored through various sessions, including Libraries: Information Services and Partnership for Development, Exploring the Challenges of Achieving Sustainable Development, AI for Development, Education, Skills Development, and Lifelong Learning.



Information for Development is a concept that emphasizes the use of information and communication technologies (ICTs) to drive social and economic development. It includes the creation, dissemination, and utilization of information to enhance development outcomes across various sectors. Contributing to a library that addresses global challenges involves creating or supporting resources that provide valuable information, foster collaboration, and drive action. Additionally, developing content through research and publications, promoting knowledge sharing, and supporting data and resource repositories are several ways in which libraries and information centers can contribute.

The objective of this conference is to provide an opportunity for library professionals to present their research findings and to encourage further research in Library and Information Science as well as in the Social Sciences. I would like to extend my gratitude to our Chief Guest, Dr. Patrick McNamara, Executive Director of the United States-Sri Lanka Fulbright Commission, for accepting our invitation. I also wish to express my sincere thanks to our Keynote Speaker, Prof. Siri Hettige, Professor Emeritus of Sociology, University of Colombo, our Guest of Honour, Senior Professor Nilanthi de Silva, Vice Chancellor of the University of Kelaniya, and our Guest Speaker, Ms. Neeti Saxena, Senior Manager, Digital Library, South Asia, British Council, for their participation and valuable contributions.

Planning and organizing this annual conference has been a long process, with contributions from many individuals, including Mrs. Padma Bandaranayake, Director, National Library & Documentation Center,

Mrs. Nimmi Deshapriya, Head of the Library Research Division, Mr. Uditha Gunasekara, Research Officer, staff of the Research Division, members of the organizing committee, and the staff of the NLDSB. I would like to express my gratitude to all of them. I also take this opportunity to thank the Chairpersons of the three sessions and all presenters at the conference. Last but not least, I extend my deepest gratitude to Prof. Nanda Dharmarathna, Chairman of the NLDSB, for his guidance and support, without which this event would not have been possible.

Lastly, I wish ICNATLIB 2024 great success.

W. SUNIL

Director General

National Library and Documentation Services Board

KEYNOTE ADDRESS

Information for Development: A Way Forward to Achieving Sustainable Development in the Midst of Local and Global Challenges

Let me begin my address by thanking the organizing committee for inviting me to speak at the inaugural session of the conference. This year's theme of the conference, namely, Information for Development: A way forward to address global challenges is wide ranging and timely. As you can see, the theme brings together three critically important focal areas, namely, information, development and current global challenges. These three areas have drawn the attention of a whole range of stakeholders in recent years for diverse reasons. I do not have to mention here the fast -changing landscape with respect to information as we continue to witness the ongoing information technology revolution over several decades. Moving into the area of development, we have again witnessed how achieving a higher level of economic development became a widely shared goal among almost all countries across the globe in the past decades, despite the fact that there has been no agreement among them as to the type of development strategies to be adopted. In this regard, we have come a long way in recent decades from a linear economic growth model to even accepting the idea of a circular economy by many, or at least the need to adopt sustainable development as a policy framework. The last, but not the least, steadily evolving global challenges have come to dominate public discourses in view of such developments as the emergent climate crisis and regional conflicts.

It is against the above background that I intend to focus attention on the nexus between information and development and then to make a few observations on the nexus between development and global challenges.

As we all know, dissemination of information has been going on for a long time. In the recent past, educational institutions, radio and TV stations, newspapers, magazines, libraries and reading rooms, national and international conferences, public discussions and government media units have been the main channels of information dissemination to the wider population in most countries. But, the information landscape changed dramatically with the onset of the global information technology revolution. Yet, the old forms of information dissemination continue to exist side by

side with the widely used new channels of information sharing, though to a much lesser extent than before. For instance, reading books and other printed material continue to decline even among students with increasing access to digitized information.

Let me now turn to the nexus between information and development. As we all know, discourses on development have been integrally connected to the processes of political development across continents and countries, particularly after the second World War. Though classical and modern economics contributed a great deal to the discourse on development, ideological divisions across the political spectrum in many countries also played a significant part in informing policy makers in the developed and developing countries alike. Yet, the increasing evidence on the persisting or even growing global inequalities persuaded many development theorists in peripheral countries in Asia and South America to advance an alternative, state-led, self-reliant model of development for their countries. These new ideas influenced policy makers in many countries including Sri Lanka in the 1960's and the 70's. In fact, Sri Lanka's development trajectory during this period was very much shaped by this thinking.

Moving forward, development discourses in more recent decades have been shaped by information emanating not just from the social sciences on such issues as global inequalities and conflicts but quite significantly, also from the natural sciences research on environmental degradation, pollution and climate change. It is these highly significant contributions to knowledge and understanding of global development landscape and its implications for human welfare that facilitated the emergence of the sustainable development discourse led by the United Nations. The information on these developments has been widely disseminated through various channels of communication, both conventional and new. Yet, we do not know how far and to what extent the availability of such critically important information and knowledge has influenced the thinking and behavior of the wider public. This is where the social scientists have to come in and play a key role to investigate and generate data that can inform various stakeholders through channels of communication wide open for them. On the other hand, what is also evident is that information and knowledge, even when readily available, do not necessarily lead to rapid change in either the behavior on the part of the wider public or policy orientations and practices of governments and businesses. On the other hand, this is not new. For instance, the *Limits to Growth*, a seminal publication of Club of Rome appeared in libraries and book stores in 1972, more than half a century ago. But, it is doubtful

whether many governments across the world were mindful of the threats that rapid economic growth posed to the natural environment, non-renewable natural resources, quality of life of the people and biodiversity. In fact, what we observed over the last fifty years is that many countries in the then developing world have by now made use of the conditions created by an increasingly interconnected global economy to achieve rapid economic growth, contributing to developments mentioned above. On the other hand, the rapid expansion of the global economy has not been equitable. Many countries in the developing world remain underdeveloped with large sections of their citizens living in poverty, without access to basic healthcare, adequate nutrition, etc. Persisting or even new internal conflicts, partly due to lack of effectively functioning governments, have made the prospects of these countries even bleaker.

The prevailing state of the world today characterized by gross income inequalities, conflicts and the climate crisis resulting in extreme weather events clearly demonstrate the urgent need for all UN member states to actively pursue the global sustainable development agenda. Yet, 2024 Sustainable Development Report shows that many countries are lagging behind the targets in many areas, indicating that they are unlikely to achieve their targets by 2030. While only 17 countries have reached a score of 80 or above against the targets, many countries fall below a score of 60. In this report, Sri Lanka has recorded a score of 67, occupying the 93rd position among 193 countries.

The failure to achieve a majority of SDG's in many countries across the developing world will not help create the social and economic conditions necessary for social and political stability and peace in many of these countries. Moreover, the same countries might not have the resources necessary for addressing challenges directly or indirectly created by regional conflicts, climate change and resulting population mobility both within and across national boundaries. On the other hand, economic development alone, without addressing social, cultural and ecological issues such as gross income inequality, lack of quality education and health services to all, inadequate social protection for the vulnerable, lack of social cohesion and inclusion and unchecked degradation of the natural environment, cannot help countries to make significant progress towards achieving SDG's.

What is also highly significant in the above regard is the role of dissemination of knowledge and information regarding national and global challenges among citizens and other stakeholders through diverse channels of communication such as education, mass media and library services. Creation

of public awareness is necessary to facilitate informed public discussion on the above issues so that the political authorities can be persuaded to adopt appropriate public policies and make necessary state interventions. So, what is necessary today is to go beyond conventional development communication and broaden the scope of information dissemination to take on board the newly emerging information and scientific knowledge. In this regard, modern communication technology including social media could play a decisive role in disseminating new ideas and techniques needed in both economic and social sectors including agriculture and rural industries.

As is widely known today, addressing global challenges is a shared responsibility of all the member states of the United Nations. But, there are many factors that prevent both the developed and developing countries from finding common ground. This is not entirely new. On the other hand, if the global community continues to fail in the above regard, the results can be catastrophic. As is well known, scientific information that should guide policy making has not always been heeded by political authorities in many countries. Moreover, the global discourse on development has changed substantially over the last five decades in line with a growing body of new information coming from research. This is clearly evident from the continually evolving ideas and development priorities during this period. As we all know, today, all countries are expected to work within the SDG framework that shows new pathways for addressing a wide array of issues that we face. Creating a well-informed public equipped with the capacity to effectively participate in the emergent development discourse is, therefore the need of the hour in a developing country like Sri Lanka. However, for this to happen, we need to overcome the wide digital divide that persists in the country. Last, but not least, we also need to be mindful of the fact that human societies are driven by both ideas and interests.

SIRI HETTIGE

Emeritus Professor of sociology,
University of Colombo

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A Syntactic Analysis of the Accuracy and Consistency of Catalogue Records in Selected Sri Lankan University OPACs

Priyanwada Wanigasooriya¹, Ruwan Gamage²

ABSTRACT

Accurate cataloguing leads to efficient information organization, retrieval, and dissemination. This study assesses the accuracy of catalogue records within Sri Lankan university libraries' Online Public Access Catalogues (OPACs) against the selected cataloguing standards. It identifies common issues and inconsistencies in catalogue records and proposes enhancements to improve the reliability and usability of these records. The research involves four university libraries (U1-U4), selected based on their location, online accessibility and the use of MARC21 standards. An empirical analysis of 200 records indicated a significant prevalence of cataloguing inaccuracies, such as improper author attributions in MARC Tag 245 as well as punctuation errors. Inconsistencies were particularly evident in language codes (Tag 041) and added entries (Tag 700). To address these deficiencies, the paper proposes targeted interventions, including training, quality assurance measures, software updates, and the establishment of uniform guidelines. As a result of these initiatives, libraries will be able to increase findability, improve user satisfaction, and collaborate and share resources more effectively.

Keywords: MARC21, AACR2, RDA, University libraries, OPAC, Bibliographic descriptions

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Introduction

Organization of information allows us to keep a usable record of human endeavors (Taylor, 2000, p. 20). The reliability of catalogue records within libraries' Online Public Access Catalogue (OPAC) is crucial, which is why cataloguing standards such as MARC21, AACR2, and RDA have been established. Subject, title, keyword, and author are the most frequently used features in OPACs (Thorne & Whitlatch, 1994). This study analysis syntactic accuracy of catalogue records in four selected Sri Lankan university library OPACs.

Objectives

Objectives of the study are

1. To assess the syntactic accuracy of catalogue records in the Online Public Access Catalogues (OPACs) of selected Sri Lankan university libraries against cataloguing standards.
2. To identify common issues and inconsistencies in the cataloguing records across the selected university libraries.
3. To suggest enhancements to the existing cataloguing practices to increase the reliability and usability of MARC21 records in these libraries.

Methodology

The research involves four university libraries (U1-U4), chosen from seven universities under the purview of the University Grants Commission of Sri Lanka (UGC), and located within Sri Lanka's Western Province, where most universities are concentrated. The selection of libraries was based on their online accessibility at the time of the study, multi-disciplinarity, and their use of an Integrated Library Management System (ILMS), which utilizes MARC21 standard for data entry.

An empirical analysis was conducted on a sample of 200 records (50 records from each university), retrieved using DDC class number 658, which represents General Management. This common and broad class number was selected to ensure that all libraries hold enough records, since all the selected Universities had Faculties of Management. For ease of analysis, only book records were included. MARC tags under 1XX are used for main entry; 24X for title; and 7XX for added entry. From these, the tags 100, 245, and 700 were selected for analysis (Gamage et al., 2024, p. 7). Numbers and codes, publication, notes, subject access, and holdings fields were excluded from the analysis due to their numerical complexity or wordiness and the wide variability of values. However, fields 040, 336, 337, and 338 were utilized to determine whether the libraries adhere to RDA standards.

Results

The analysis of syntactic accuracy in data entry and the use of MARC21 fields across four university OPACs in Sri Lanka reveals significant issues and patterns that compromise the quality of bibliographic records as depicted in Table 1.

Table 1: Main errors and inconsistencies identified in the catalogue records

Issue or inconsistency	Reason to flag	Analysis					
		U1	U2	U3	U4	Quantity	%
Absence of punctuation marks in bibliographic records	Requirement	41	50	50	50	191	95.5%
Utilization of language code in tag 041 for textual content	Inconsistent	0	7	0	50	57	28.5%
Added headings also assigned to tag 100 in repeatable fields	Include in 700	0	50	0	0	50	25%
Usage of main headings (100\$a) in cases of more than three authors	Title becomes the main heading	0	0	0	50	50	25%
Use of 100\$9	Unavailable in MARC21	0	0	50	0	50	25%
Absence of statement of responsibility in 245\$c	Requirement	11	50	50	0	111	55.5%
Author names inverted (Surname first) in 245\$c	Requirement, Inconsistent	0	0	0	50	50	25%
Use of General Material Description (245\$h)	Inconsistent	0	0	0	50	50	25%
Use of With Note (501\$a) for notes on holdings	Irrelevant	0	0	50	0	50	25%
Tag 942 is utilized for holdings	Inconsistent	0	50	50	50	150	75%

It is important to note that none of these libraries have adopted the RDA Standard. MARC tags 336-338 had not been used. Consequently, our study focused on verifying the accuracy of records with AACR21 rules.

The most common issue was the absence of AACR2 **punctuation marks** in bibliographic records, which was observed 191 times (95.5%). Another prevalent issue was the absence of **statement of responsibility** (245\$c) in 111 instances (55.5%). U2 included **added headings** under repeatable fields of 100\$a. Similarly, U4 inverted author names (Surname first) in the **statement of responsibility** 245\$c and used author names as **main heading** (100\$a) even when **principal responsibility was not indicated** (more than three authors). U3 had used the '**with note**' (501\$a) for recording a note on **holdings**.

Several inconsistencies across the four universities were also found. For instance, U2 used **general material description** (245\$h) while others did not. Utilization of **language code** (041\$a, by U2 and U4), and a **nonexistent subfield** (100\$9, by U3) were also evident. In addition, three Universities recorded **holding information** in tag 942 (U2-U4).

These findings underscore the need for targeted interventions to address the specific issues in each single institution, and to maintain uniformity of cataloguing practices across all universities.

Discussion and Conclusion

All four libraries had not created RDA compliant records. Despite RDA's flexibility, the current ILMS which operates on AACR2 principles supports retrieval based on the accuracy of bibliographic data. Additionally, the accuracy of existing AACR2-based records still affects users who are accustomed to AACR2-based systems. For example, noncompliance with punctuation marks affects the clarity of presentation and findability. Author field, responsibility area, and added entries are essential components of a catalogue record which directly affects the effectiveness of a system.

The identified issues not only affect the quality and reliability of the OPACs but also delay users' ability to access accurate bibliographic information, compromising the overall user experience. The analysis highlights a critical need for improved training and standardization in the cataloguing process across these institutions. To address these issues, comprehensive training modules should be developed. Regular workshops and refresher courses for library staff are essential to reinforce proper cataloguing practices and ensure that staff are up to date with the latest standards and guidelines. Implementing strict standardization protocols will ensure uniform cataloguing practices across all university libraries.

Following the path of other libraries in the world, implementing a systematic plan for using RDA based cataloguing is also a necessity (Maurer & Panchyshyn, 2014; Parent, 2014).

The error patterns identified in this study can be used to rectify them in the broad spectrum of all University Libraries in Sri Lanka. Encouraging inter-university collaboration to share best practices and promoting a learning culture will contribute to improving cataloguing accuracy across all institutions. Investing in technology and tools to assist in cataloguing is also crucial. Utilizing MARC validation tools to check for common errors and ensure adherence to cataloguing standards before records are finalized will enhance the accuracy and consistency of bibliographic records.

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Enhancing Cross-Language Based Searching Facility in Online Public Access Catalogue (OPAC): Special Reference to Library System, University of Ruhuna

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ABSTRACT

The Library System, University of Ruhuna takes a vital place among the academic libraries in Sri Lanka. The library manages all the resources through integrated library management software called “*Koha*” and the cataloguers adding the bibliographic information of library materials to the system using both Sinhala and English languages. Basically, if the item is written in Sinhala, the Bibliographic data, especially the title of the item and name of the author/s, added using Sinhala language. Moreover, if the item is written in English, the bibliographic data, the title of the item name of the author/s, and etc. added using English language. However, if a library user searches author’s name of an item written in Sinhala using English language, then the available items will not be searched. It is a kind of enormous issue face by the library users and the users will dissatisfy about the search results. To overcome this issue, the entire database has to be altered by adding additional bibliographic tag to enter the author’s name in English for the materials written in Sinhala. There were around 269,256 records in the database as of 10th December 2023 and among them around 50% of items were recorded in Sinhala. If this task is done manually, it would take around more than six months period to edit each item and will require high man power capacity. Hence this study aimed to provide a solution to enhance the searching facility of the integrated library management system of University of Ruhuna through upgrading the cross-language based author searching and complete this task withing a shorter period using less man power.

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Researchers went through different methods and among them, the best method was to use “SEE FROM TRACING” feature at the MARC format of the authority files in Koha to edit the authority records in the library management system. To feed the data to the above field within a shorter period without allocating separate team of catalogers, researchers used MarcEdit software application and online language translator platform (Online Doc Translator) to convert the authors name in Sinhala to English. Finally, researchers were able to achieve the objectives by making relevant adjustment to the authority files within shorter period without allocating extra manpower hours. Now the library users are given the searching facility to search the library items written in Sinhala through typing the author’s name in English.

Keywords: Authority record, Cross-language based searching, Koha, MarcEdit, See from tracing

Introduction

According to Mulla & Chandrashekara, (2009) OPAC is an essential tool in today’s libraries because it makes it easier for patrons to search for library materials and find out whether they are available at any given time. A collection of bibliographic entries detailing the books and other materials owned by a library or library system makes up OPAC which commonly refers to an information retrieval system. OPAC can be accessed online from anywhere, which is useful for users who are far away. The researchers considered that it would be beneficial to study the University of Ruhuna Library OPAC since the majority of patrons and staff experience difficulties searching for books when the author’s name is given in English since the book is entered in Sinhala. In such situation, patrons encounter issues of finding books and materials which are entered in Sinhala, due to the OPAC did not support the cross language-based searching facility. So that the researchers looked for a mechanism to sort out this issue. In order to manually edit/add references to the materials entered in Sinhala, modifying the database would take around six-months. Then it affects the on-going operations of the entire library system and it became necessary to find alternative methods that would allow us to complete the above task in the shortest amount of time and with the lowest amount of labor hours.

As such, the objective of this study was to provide a solution to enhance the searching facility of the integrated library management system of University of Ruhuna through upgrading the cross-language based author searching and complete this task withing a shorter period using less man power allocation.

Methodology

The study was based on an experimental study in the field of social sciences, particularly in information systems. Koha is the integrated library management application used by the Library, and it provides online interfaces for patrons and library professionals working on behalf of the system. As per the issue detected by researchers that patrons face when searching materials through the OPAC, researchers were able to resolve the issue using some computer applications as well as features available in the (Machine Readable Catalogue) MARC format of authority files in Koha application.

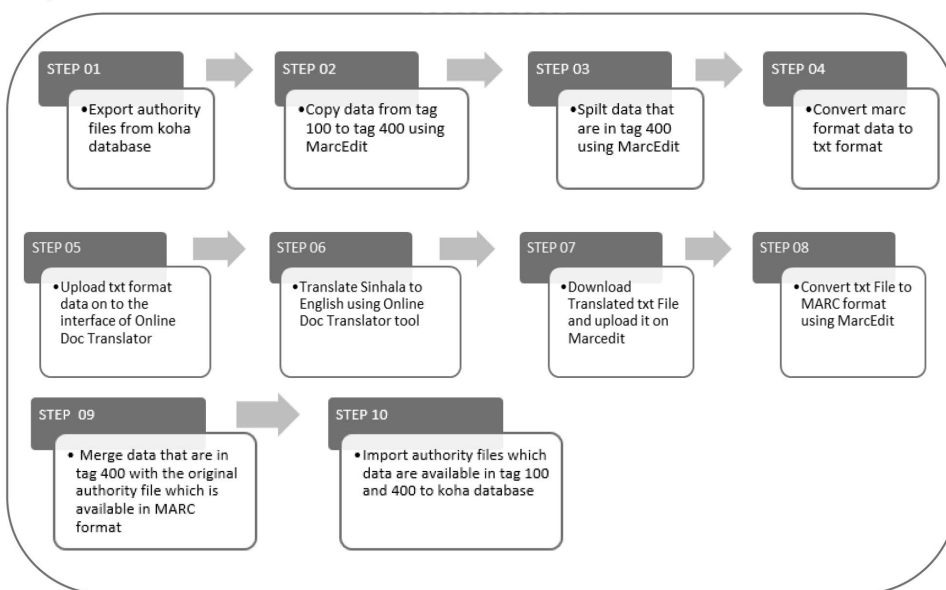
MARC 21 has five types of data formats including, Bibliographic Format, Authority Format, Holdings Format, Community Format, and Classification Data Format (*MARC 21*, 2021). Among them under the personal name authority data, 400 – See From Tracing subcode was taken into consideration. According to (Library of Congress, 2022), “tracing for a personal name see from reference. Used in an established heading or established heading and subdivision record to trace a see from reference from a personal name not used in an established heading”. Researchers selected to utilize the above field in the Marc editor view of Koha application.

Then, it was required a mechanism to feed data into the above field within a shorter period without allocating separate team of catalogers. Researchers used MarcEdit software application and online language translator platform (Online Doc Translator) to convert the authors name in Sinhala to English.

Terry Reese the creator and maintainer of the MarcEdit tool suite says (2013) that the MarcEdit program is comprised of several tools which offer a wide range of operations for creating, editing, and manipulating metadata for libraries, including but not limited to entries in various MARC formats and standards. As of 2024, the MarcEdit application comprises around 21 functionalities (Reese, 2013) and among them Metadata Translation feature used by researchers.

With the help of Online Doc Translator, users may quickly and simply translate documents across different languages on the web. The service allows users to submit documents in Word, PDF, Excel, and PowerPoint formats, and it will translate the text into the appropriate language. Depending on the user's selection, it provides both machine translation and human translation alternatives and supports a large number of languages. The software strives to deliver precise translations while preserving the document's original formatting.

The following steps were followed to translate the Sinhala author names under the 100 marc tag in the authority files in the Koha database to English and enter the translated data into the 400 tag.



Results

Upon successful integration of above technologies, researchers were able to upgrade the backend of koha application where it displays library materials through the OPAC even when patrons search material by author written in Sinhala using English, both types of items written in Sinhala and English can be retrieved as search results.

Furthermore, even if the methodology and application parts took considerable time, the total number of existing records in the library system's Koha database was able to be modified in a shorter period of time.

Discussion

Today's libraries are increasingly leveraging technological advancements to enhance their services. In Sri Lanka, almost all university libraries have adopted the Koha integrated library management system, a robust and flexible open-source solution that supports a wide range of library functionalities. The National Library of Sri Lanka and a significant number of public libraries have also integrated Koha, with ongoing efforts to extend its implementation to remaining libraries. This adoption is a part of a global trend, as Koha's scalability and extensive feature which includes cataloging, circulation, acquisitions, and patron management make it a popular choice for libraries worldwide.

Faster circulation processes, more efficient cataloging, and enhanced user access to library resources are just a few benefits that come with Koha's integration. Nevertheless Koha tackles several noteworthy issues, such as translating between languages. One of the biggest problems facing libraries in multilingual settings like Sri Lanka is providing easy access to information in many languages. Koha's flexible options and extensive search capabilities make it easier for consumers to find information from OPAC.

Further Research Studies

The researchers considered only the personal name field because the researchers considered to solve the issue encountered when use of author name field. But, this method can be applied for the all the authority file related data such as corporate names, uniform titles, subject headings and more. Moreover, this can be used to any local languages that is capable in Koha to take search results form English.

Conclusion

Libraries should pay close attention to the system's deployment and how it impacts library services, whether they are currently using Koha or are thinking about doing so. It provides choices for optimizing the system's use, highlights issues, and provides enlightening details regarding optimal procedures. Libraries can acquire expertise about setting Koha up to improve cross-language search capabilities, ensuring that users can find the content they need regardless of the language in which it is categorized. In addition, by examining the global library experiences, institutions can foresee challenges and apply traditional methods to enhance library management practices.

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An Analysis of User Behavior Relating to Information Query Pattern with Special Reference to Allied Health Sciences Library, Kotelawala Defence University

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ABSTRACT

In the 21st century Information User is the most important and dynamic factor which draws central focus of the library services in planning and developing its resources and services. In this endeavor, analysis of user behaviour is an essential practice in any library. This study is a desk research, which has been conducted based on secondary data: the user queries reported at the Allied Health Sciences Library, Kotelawala Defence University during the six months of period from May 2023 to April 2024 (total no. of user queries used for the study is, n=296). Investigating the user behaviour in relation to user queries and analyzing its pattern is a significant attempt to understand; types of users (*tu*), knowledge level of user (*ku*), queries presenting behavior of user (*bu*) and nature and type of queries (*qu*) presented to the library. Inductive research approach has been followed in this study. Two strata of users; staff and students were identified in this study. Majority of the queries presented by the undergraduates (58%) while significance number of academia (42%) has also posed queries to the library. Academia shown medium level of knowledge on certain information needs while presenting their queries. Most of the user queries of academia were received over the phone while undergraduates reached the library physically. Information queries are shown diverse of themes related to Document Delivery Service, database access, institutional repository and past question papers repository access, plagiarism level identification, publication procedures and research support. Academic staff members mainly expected support on Document Delivery Service and identification of quality journals for the publications. Most of the users inquired on articles which are not available at the library, that hinder the need of more database subscription. Faculty liaison Librarians should spend more time to address the user queries that may enhance the library usage as they expecting more attention from the professional staff.

Keywords: Information queries, user behavior, Allied Health Sciences Library, user queries

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Introduction

User is the centralized point of any library service and should be considered as most important part of the information service provision. Information provision is driven by the existing and envisaged information needs and the concept is multifaceted. It creates a challenging situation for information professionals when addressing their queries. Though the situation is crucial, it is essential to address actual user need with better understanding of their demands on information that helps to continue their positive relationship on library services (Das & Balasubramanian, 2022; Kumari & Sharma, 2021). User studies are foremost area addressed by the libraries globally in order to serve them on their demands by using different methods. Exploring the user queries also can be identified as one of the effective method used to analyze the user behaviour related to consulting the library for their information and learning needs. Also, it helps to identify the extent of involvement of the library in supporting the users in academic tasks. This study attempts to analyze the user behavior relating to information query pattern with special reference to Allied Health Sciences Library (AHSL), Kotelawala Defence University (KDU), Sri Lanka as it is essential to explore actual information needs while focusing on reporting mode and types.

Allied Health Sciences Library, use multiple methods and platforms to facilitate its users and allow them to reach with information queries in many ways. Online platforms including commercial and open access as well as many social media channels are promoted by the libraries to address their user queries effectively (Cheng et al., 2020; Horsfall, 2020). According to the existing literature, users are showing significant diversity in their query types. Access issues in databases, repositories or websites, request for full text articles, research support, publication issues are can be highlighted as common types of queries presented by the user (Li, 2021; Liu et al., 2020; Rafiq et al., 2021). Facts derived from literature shows value of identification of user queries pattern to address their needs accurately and timely with expected outcomes. It enables librarians to visualize the hidden factors that affected on library services rendered to user based on their queries.

Objectives

Main objective of this study is to investigate the user behaviour in relation to user queries and analyzing its pattern. Specific objectives of the study are also developed in order to identify following aspects.

- i. To understand types of users (*tu*) presented user queries.
- ii. To explore the knowledge level of user (*ku*).
- iii. To identify the queries presenting behavior of user (*bu*).
- iv. To find out nature and type of queries (*qu*) presented to the library.

Methodology

This study was conducted based on the secondary data: the user queries reported at the Allied Health Sciences Library, KDU during the six months of period from May 2023 to April 2024 (total no. of user queries used for the study is, n=296). Research approach of this study is inductive research and archival research strategy. Two strata of users; staff and students were identified in this study. The researcher could identify four independent variables that affects the status of information service conducted by the AHSL. Total number of user queries (n=296) analyzed by considering these four variables; types of users (*tu*), knowledge level of user (*ku*), behavior of user (*bu*), type of queries (*qu*). The data was presented with descriptive statistics.

Results

User (n=296) queries presented at the Allied Health Sciences Library, KDU was evaluated by considering four variables of *tu*, *ku*, *bu* and *qu*. Descriptive analysis formulated while providing facts based on the observations at actual scenario.

Basically two types of users presented their information queries to the library as undergraduates and academic staff (AS) members of the Faculty of Allied Health Sciences, KDU. Majority of the queries were presented by undergraduates (n=171) while AS members presented 125 queries. Undergraduates consisted with all the current intakes of the faculty.

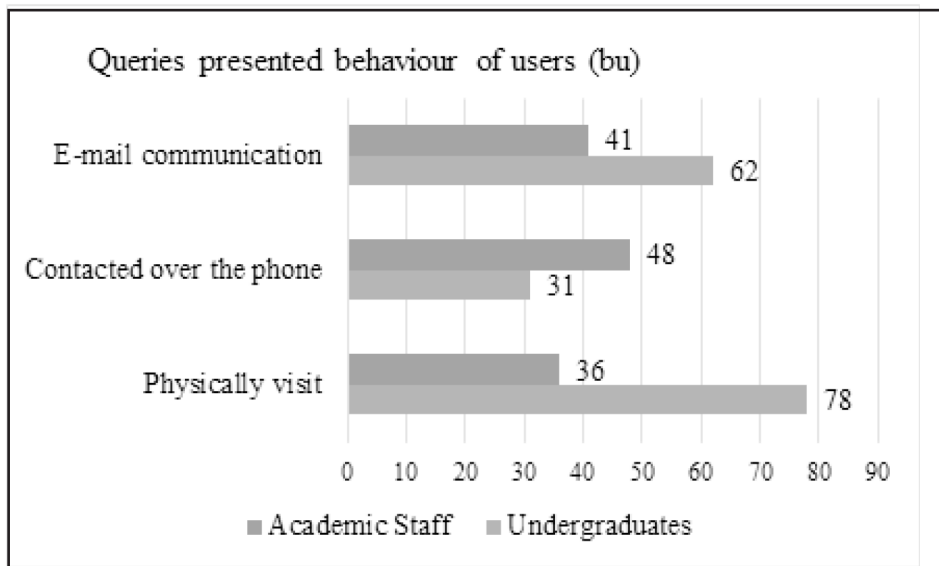


Figure 1: Information queries presented behavior of users

According to the figure 1, most rated queries presented behavior of undergraduates is physically visits to the library (n=78) while presenting queries through e-mail communication (n=62) and contact over the phone (n=31). Academic staff members mostly preferred to contact library staff over the phone (n=48) followed by e-mail communication (n=41) while less interest shown on physically visits to the library (n=36).

Knowledge level of user (*ku*) also explored by this study based on the three parameters as high, medium and low. In this variable, level of knowledge of the users in particular subject or query was identified by the *tu*, and it was found that AS members level of knowledge on majority of queries is at medium level (51%) while undergraduates were at low level (59%).

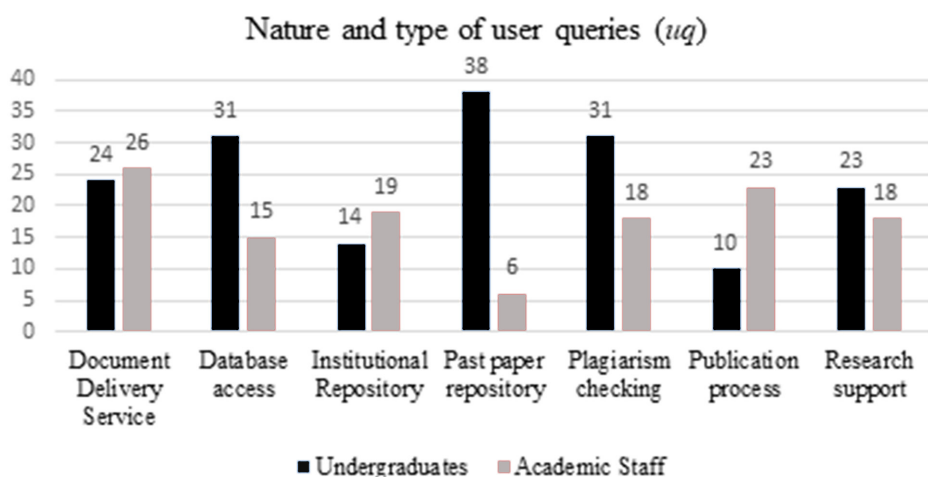


Figure 2: Nature and type of user queries (uq)

As demonstrated by the figure 2, highest scored type of user queries presented by the undergraduates is on past paper repository (n=38) while reporting similar number of queries (n=31) on database access and plagiarism checking. Lowest number of queries (n=10) presented on publication process. Academic staff member’s mostly presented query type is Document Delivery Service (DDS) (n=26) followed by queries on publication process and institutional repository respectively. Similar level of queries found for the plagiarism checking and research support by the AS while showing lowest count on past papers repository.

Discussion

This study examined 296 user queries presented to the AHSL, KDU and identified two types of users (*tu*) who presented their information queries as

academic staff members and undergraduates. Mostly reported information queries presenting behavior of the undergraduates is physically visits to the library, for which the reason may be that they prefer to obtain instructions, guidance or answers in face to face mode. Further observed that students are happy to meet the librarian regarding their queries. Moreover, they contact the library through e-mail communication and telephone conversation. Academic staff members of the FAHS, KDU mostly presented their queries over the phone to librarian as they may believe it as effective way. Academic staff members were able to explain or present their queries with medium level of knowledge while undergraduates shown low level. Past papers repository related queries were identified as highest requested information queries type by undergraduates while request other types of queries such as plagiarism checking, database access, DDS, Research support, institutions repository and publication process were at low level. Highly rated types of queries of academic staff is DDS that may be due to inadequate access to full text articles/ databases. Specially, they are expecting more support to find articles when they engage in systematic reviews and other publications. Moreover, academic staff members presented queries on research publications which includes identifying quality journals and predatory journals, awareness on indexing journals, open access publications, etc.

Conclusion

This study attempted to explore the pattern of the information queries presented by the users and their behavior based on the queries reported at the AHSL, KDU. Two types of users were identified as academic staff and undergraduates who reported queried on information. Undergraduates mostly preferred to present their queries by physically visit to library, while academic staff preferred to contact the librarian over the phone. If the library could introduce new and effective online platforms to report the user queries it will enhance user interest more with better outcome. Undergraduates shown low level of knowledge on information queries presented by them while the academic staff were at middle level of knowledge. It is suggested that library may arrange more awareness sessions to increase the information literacy skills of the users. Main type of queries reported by the undergraduates were related to the issues on past papers repository while some were on database access. Library is responsible to conduct more hands-on sessions regarding access to databases and other electronic resources which will be beneficial for them. As the academic staff having more queries on DDS, it is necessary to plan to subscribe important databases and implementation of information sharing methods to address their needs. Further, library should always cater for their publication needs and research queries effectively to provide better services continuously. Through this study, it was evident that the academic users require constant support from the library in accomplishing teaching

and learning tasks and fulfilling research needs as well. Hence the library staff need to be professionally prepared in serving special communities such as Allied health science staff and students.

This study opened new area to be studied further, user satisfaction towards support of the library they received on the reported queries which will help to explore user perception in order to more develop and streamline the service.

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Study on the Role of Modern Libraries in Developing Language Competency of Primary Students

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ABSTRACT

Reading of a child from a young age can greatly increase the likelihood that they will succeed in life. In Sri Jayewardenepura education zone, mal functioning child libraries have been observed especially in primary schools. Further competency level of language has not been reached to the expected level. It was found that due to non-attractive nature of the library, student usage dramatically decreased resulting in low language literacy. The physical condition of the library was not pleasant due to the unorganized manner and financial issues. As a solution a study to develop 15 primary libraries was carried out. Out of 89 schools, with low primary language competency level, 15 schools were considered for the study. Appropriate fund allocations to schools was a major challenge. School community support and their innovative ideas played a key role in the program. Key area to be addressed was how to increase the reading habit of by 10% by providing a comfortable environment conducive to learning and train teachers about best practices of child friendly libraries. Detailed requirement and instructions of library modifications were given to schools. Teacher training and innovative activities such as storytelling, book camping and various innovative activities were introduced. Six months after implementation it was revealed that library usage, average book lending, innovative adaptations and investment on library infrastructure and sponsoring by donors has been increased. Further findings revealed: 92% of schools have used the library for more than 6 periods per day with an increase of average book lending. Story telling sessions have been increased by 30% and five schools have added/ modified the library with the aid of donors. Thus, the study approaches the language development by promoting child friendly primary library with Value for Money (VFM) with government funds.

Keywords : Competency Level, Language Literacy, School Community, VFM

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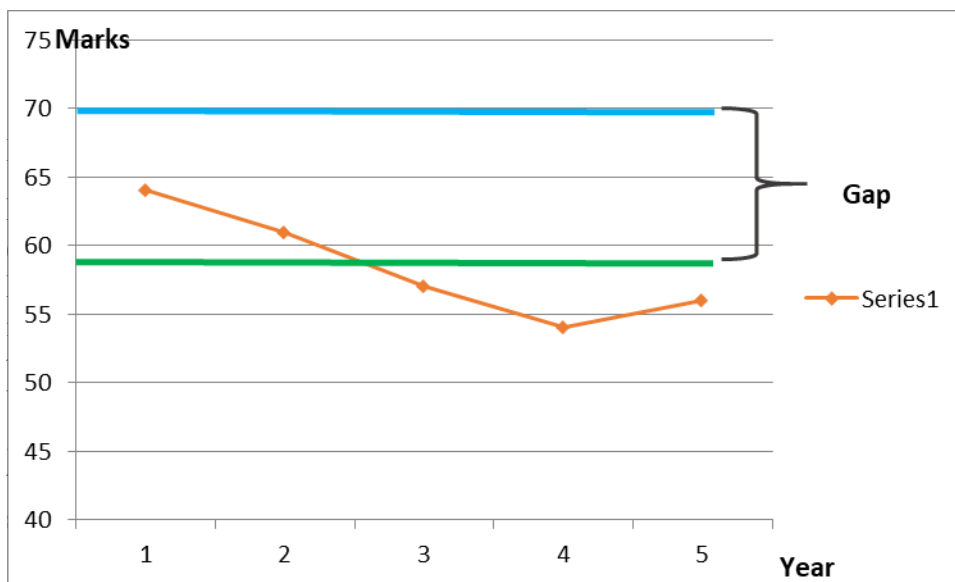


Figure 1: Average Marks and Gap in Consecutive years

The language gap to be addressed was found as 12%. Christina and David (2014) introduced a model for best practices in school libraries suggesting that school-based factors such as curriculum, scheduling, technology facilities, and staffing can have significant influence over the access the librarian has to teachers and students. Here it is limited to a detail study on infrastructure aspect. Grade span of the study is grade 3, provincial primary schools (grades having 1 to 5 only) and concerns only about the English language.

Objectives

Main objectives of this study are to:

1. Increase English language competency of grade 3 students by 10%
2. Increase library utilization to 100 %
3. Introduce 3 kinds of ways of creative space for active learning using the library
4. Develop school level financial plan for library maintenance.

Methodology

The initial stage of the research was situational analysis of primary schools regarding English language competency. It was found that 20 out of 35 primary schools (having grades from 1 to 5 only) did not have modern libraries. Out of these 15 primary schools were selected considering the gender of students, present infrastructure condition and school community's willingness to help. Quantitative data (competency level) and qualitative data (student's learning preference, library conditions) with interviews and observations were used to identify library usage patterns. Student performance data was analyzed using spreadsheet formula. Further an amount of Rs 100,000 was given per school to modernize/renovate the library or to convert a classroom to a library. Guideline and model of the library was given to the principal to maintain the uniformity and modernity of all 15 schools. After 6 months usage of the library, posttest for language skill identification was analyzed.

Results

1. English language competency results after 6 months of implementation is shown in table 1.

Table 1: Average percentage marks obtained before and after the implementation

Year	Percentage Marks of Schools			
	Reading	Writing	Speaking	Listening
2023 (Before implementation)	60%	68%	74%	69%
2024(1 st Term – After implementation)	62%	70%	75%	67%

Source: Survey data

Minor increase in reading (2%), writing(2%), speaking (1%) and decrease of (2%) in listening skills was observed.

2. Library utilization per week of 15 schools is shown in figure 1.

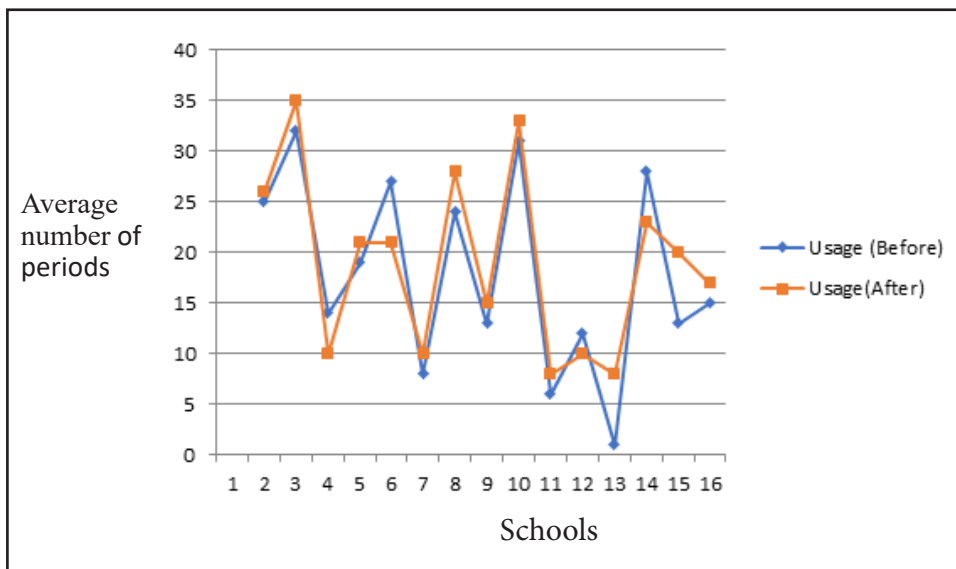


Figure 01: Library utilization per week of 15 schools

Source: Survey data

Average Usage (Before) was 17.9 periods and Average Usage (After) was 19 periods.

3. Schools managed to implement creative ways for active library space was as below.

Table 2: Use of active library ways

Creative Ways	No. of Implemented Schools
Use of vibrant colors, wall painting	15/15
Modern child friendly furniture	15/15
Story telling sessions	08/15
Providing series of smaller places	10/15

Source: Project Report – GEMP Library Project

Story telling sessions have not been conducted by 7 schools for English language (Average marks found as 58%).

4. School level financial plan for sustainable development of the library

Only 6 libraries had a financial plan except government funds to achieve future requirements/maintenance. Only 3 libraries have allocated budget to introduce innovative items.

Discussion

Minor improvement in reading, writing and speaking skills of English language with a decrease of listening skills (2%) was observed. Difference between average usage of library before and after the research was 1.1%. It was observed that, students having low marks in skills have less library utilization (average 43%). Implementation period was 6 to 9 months in the research; therefore, the impact is not high. Since the duration is a short period the story telling sessions were not used much which is 8/15. Providing series of smaller spaces (attractive spaces) were not adapted by two schools. 85% of primary school teachers have not done story telling beforehand.

Conclusion

Library utilization has a direct influence on language skills development. Library utilization has not significantly increased during the period even though creative ways were introduced and promoted. Schools with less use of storytelling had less results in listening skills. Discussions with principals revealed that smaller spaces are not available, due to the financial issues in schools. It was found that 9 libraries did not have a proper financial plan. Therefore a financial development plan has to be introduced to 9 schools.

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Survey on User Satisfaction on Library Resources and Services at Sri Lanka Law College

M. G .H. K Wijerathne¹, B. Liyanaarachchi²

ABSTRACT

The Sri Lanka Law College Library has long been a bastion of legal education, offering a wide array of physical texts and personalized services catering to the unique needs of law students. This study examines the usage and satisfaction levels of law students with the resources and services provided by the Sri Lanka Law College Library. The primary objective is to assess student satisfaction with the available information resources and services. The study also aims to analyze the purpose and frequency of library visits, identify the most frequently used resources and services, and explore students' views on future library developments. The study surveyed 300 law students from all academic years at Sri Lanka Law College, employing quantitative and qualitative data collection methods, including online surveys, focus groups, and in-depth interviews. The research revealed that 70% of students visit the library weekly, with physical texts being the most utilized resource. While satisfaction with library resources was notably high at 80%, only 60% of students were satisfied with the study spaces and digital resources. Based on these findings, recommend extending library operational hours, particularly during examination periods, and enhancing digital resources to better support modern legal studies. Redesigning study spaces to accommodate more students comfortably and instituting regular research skills workshops and orientation programs could further align the library services with student needs and expectations. The study also uncovered a strong interest among students in developing a 'Human Library' program and other innovative services to improve engagement and overall satisfaction.

Keywords: User Satisfaction, Library Services, Law Education, Digital Resources, Study Spaces

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Introduction

The Sri Lanka Law College Library serves as a critical resource for legal education, yet the dynamics of student interactions and satisfaction with these services remain underexplored. This study aims to fill this gap by assessing how often and why students utilize the library, which resources they prefer, and their satisfaction levels, providing a basis for strategic improvements.

Objectives

- To evaluate the current level of student satisfaction with library resources and services.
- To analyze the frequency and purposes of student visits to the library.
- To identify the most popular library resources and areas needing improvement.

Methodology

This study on user satisfaction with library resources and services at Sri Lanka Law College employed a mixed-methods approach to comprehensively analyze both quantitative and qualitative aspects of student interaction with the library. Quantitative data were collected through an online survey distributed to 300 law students, which included structured questions on a Likert scale to assess their frequency of library usage and satisfaction levels with available resources and services. The quantitative data were analyzed using SPSS, providing statistical insights into user satisfaction and usage patterns.

Complementing this, qualitative insights were derived from focus groups and in-depth personal interviews, which allowed for an exploration of students' experiences in greater depth. For the qualitative data, thematic analysis was conducted manually to identify key themes and patterns in the data, ensuring a nuanced interpretation of the textual information. This method involved coding the responses and categorizing them into themes that emerged during the analysis.

The survey instruments were pilot-tested for relevance and clarity, and the protocols for focus groups and interviews were crafted to elicit detailed and unbiased responses. Ethical considerations were strictly adhered to, with all participants providing informed consent and assured of their privacy and data confidentiality. This robust methodological framework facilitated a detailed examination of the current usage and satisfaction levels and helped identify specific areas for improvement within the library's services and resources.

Results

Library Visit Frequency: A survey of 300 law students revealed that a significant majority (70%) visit the library at least weekly. This high frequency underscores the library's pivotal role in supporting the students' academic needs. The graph below illustrates the distribution of library visit frequency among students:

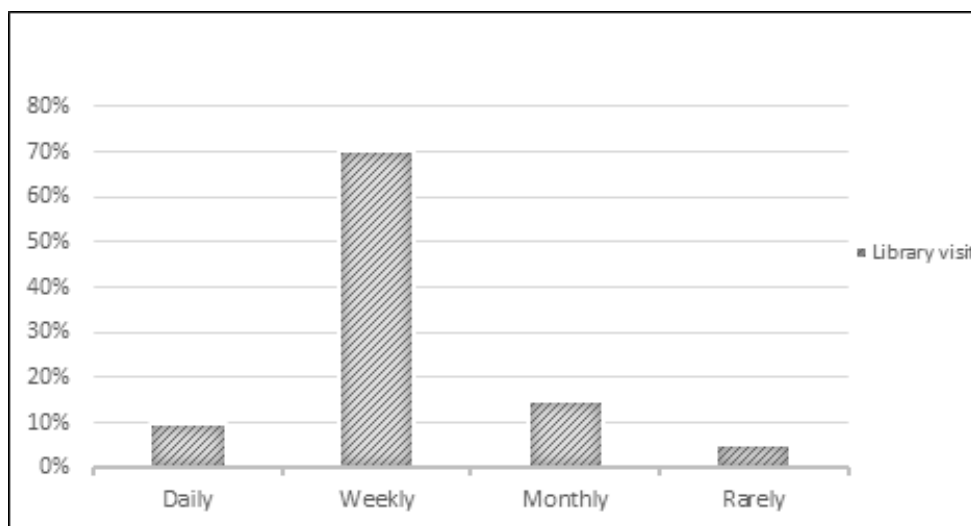


Figure 1: Frequency of Library Visits

The frequency of library visits by law students at the Sri Lanka Law College. A majority of the students (70%) visit the library weekly, monthly visits (15%), daily visits (10%), and rarely (5%). **Utilization of Library Resources:** Physical texts, such as case law reports and statutes, are the most accessed resources, with 80% of the respondents reporting high satisfaction with their quality and range. The pie chart below displays the types of resources most commonly used:

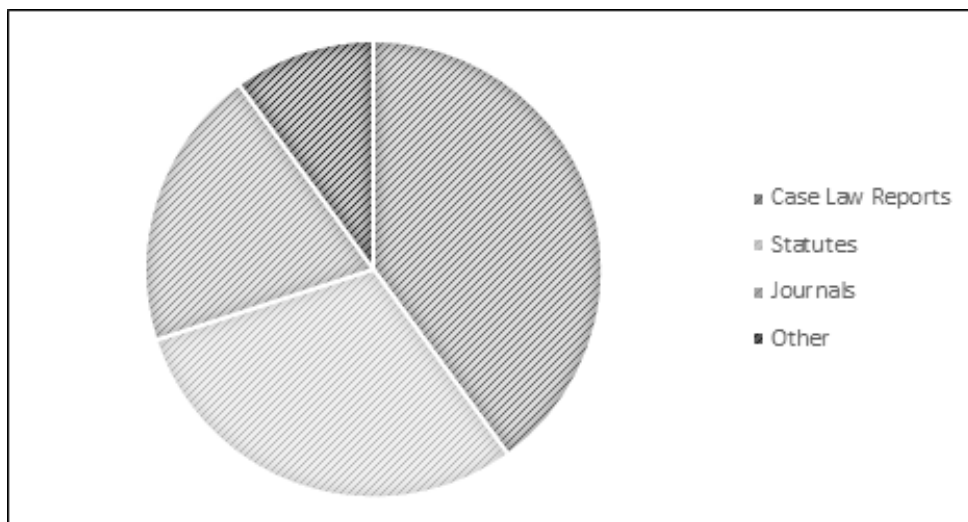


Figure 2: Types of Resources Used in the Library

The types of resources used by the students indicates that Case Law Reports are the most frequently accessed resource, comprising 40% of usage, emphasizing their critical importance for legal studies and research. The use of statutes follows closely, accounting for 30%, essential for students who need to reference legal frameworks and specific laws. Journals provide scholarly articles and case studies, though they are used (20%) slightly less than case law reports and statutes. The smallest segment, labeled ‘Other,’ includes 10% and encompasses a variety of less frequently used materials such as previous years’ exam papers, commentaries, and legal handbooks, illustrating the need for diverse academic resources:-

Satisfaction with Library Services: While the satisfaction with physical texts is high, only 60% of students are satisfied with digital resources and study spaces. This indicates areas needing improvement, particularly in digital offerings and the physical study environment.

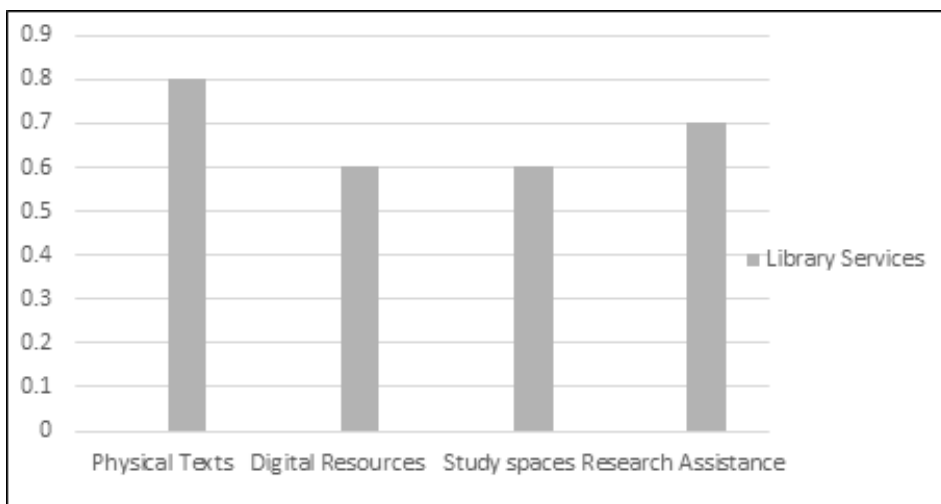


Figure 3: Student Satisfaction with Library Services

The satisfaction levels of law students with various library services are visually represented Fig. 3. The categories evaluated include Physical Texts, Digital Resources, Study Spaces, and Research Assistance.

Physical Texts show the highest satisfaction level among the students, with 80% expressing contentment. This indicates that the physical library resources effectively meet the needs of the students for their coursework and research. Digital Resources and Study Spaces both reflect a lower satisfaction level at 60%. This suggests that while these services are utilized, there are notable areas for improvement. Students may be encountering issues such as outdated materials, inadequate access to digital databases, or insufficient space and facilities for studying, particularly in group settings. Research Assistance is rated with a 70% satisfaction score. Although this is a relatively positive figure, it also points to potential gaps in how research support is provided to students, highlighting opportunities for enhanced guidance and support. A straightforward quantitative analysis of student satisfaction across different library services, underscoring strengths in the provision of physical texts and identifying areas for improvement in digital resources, study spaces, and research assistance. This analysis is crucial for strategic planning and targeted enhancements within the library to better serve its student body.

Feedback on Digital Tools and Study Environment: Two primary areas of concern were identified regarding the library's facilities and services: digital tools and the study environment.

Digital Tools: The feedback indicated that students find the digital tools provided by the library challenging to use, coupled with a general lack of awareness about these resources. Students' difficulty in utilizing the tools suggest a disconnect between the tools available and their capability or willingness to engage with them effectively.

Suggested Improvements: It is recommended to enhance training sessions to better equip students with the necessary skills to utilize these tools efficiently. Improving the integration of digital tools into the students' academic routines could also increase their usability and familiarity, thereby enhancing overall academic productivity.

Study Environment: The study areas within the library are described as overcrowded, which detracts from the environment needed for effective study, particularly for groups that require more space and quieter settings. This overcrowding reflects an inadequate infrastructure that fails to meet the students' spatial and environmental needs. **Suggested Improvements:** Expanding the study areas is essential to accommodate a larger number of students comfortably. Additionally, introducing more facilities such as dedicated group study rooms, increased seating capacity, and better noise management could significantly enhance the study environment. These improvements would cater to both individual and group study needs, thus fostering a more conducive learning atmosphere.

Recommendations for Improvement: Based on the results, the following enhancements are recommended to improve user satisfaction and engagement:

- Expand and update the digital resource collection.
- Enhance the physical environment to accommodate group studies and reduce overcrowding.
- Increase the frequency and coverage of training sessions on digital tools.

These recommendations aim to bridge the gap in digital literacy and improve the overall library experience for law students at the Sri Lanka Law College.

Discussion

The study highlights a significant disparity in student satisfaction with the Sri Lanka Law College Library's services. While physical resources are highly praised, reflecting the traditional reliance on print materials in legal education, the satisfaction with digital resources and study spaces is notably lower. This underscores the library's challenge in keeping pace with the digital and collaborative demands of modern students. The qualitative feedback suggests that the integration of technology in library services is insufficient, with outdated digital platforms and a shortage of suitable study areas hindering effective study and collaboration.

Addressing these issues requires strategic enhancements in both digital resources and physical infrastructure. There is a clear need for investment in advanced digital platforms, expanded access to online legal databases, and a redesign of study spaces to support group collaboration and technology use. These improvements would not only align the library's services with contemporary educational practices but also elevate the overall academic experience, preparing students for the digital-centric practices of modern legal professions.

Conclusion

The findings of this study underscore the necessity for the Sri Lanka Law College Library to adapt to the evolving needs of its users, particularly in enhancing digital resources and study environments. While the library successfully caters to the demand for physical texts, it falls short in providing satisfactory digital services and conducive study spaces. Addressing these gaps is crucial not only for improving student satisfaction but also for aligning the library's offerings with the modern educational demands of legal studies.

To effectively support the academic and professional development of law students, the library should extend its operational hours, particularly during exam periods, improve digital resource availability, and redesign study spaces to foster a more collaborative and technologically integrated learning environment. These strategic enhancements will ensure that the library remains a vital resource in the legal education landscape, facilitating a higher level of engagement and academic success among students.

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A Survey on District Central Librarians of Andhra Pradesh, India

Dr. P. Raghavaiah¹, Karnati Srikanth²

ABSTRACT

As the technology is changing, the role of librarian is also changing. The youth from rural and urban areas are depending a lot on public libraries to get information on Government notifications, self-employment schemes, employment, competitive examination details, admission details of different universities and colleges. They consider public library as another education institution after finishing their college education. Considering the importance of public libraries in society, it was decided to conduct a survey on librarians of District Central Libraries (DCLs) of Andhra Pradesh (AP) and users of these libraries. During the study authors found that many rural students are depending on public libraries for their future. In rural places the public library is the only source to find job opportunities for the rural youth. District central libraries are central book purchase authority for the whole district public libraries. There is heavy demand for competition books and latest novels. Unfortunately, librarians are suffering from insufficient funds from government to purchase new books. Many libraries are lagging in physical facilities too.

Keywords : District Central Librarians, Public Libraries, Andhra Pradesh, India

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Introduction

Educating the public and promoting information literacy is a key responsibility of the librarian of a public library. Public libraries are established to provide access to information and recreational sources through books, magazines, newspapers, audio/video materials and other reference materials like directories, and encyclopaedias. A library without a librarian is just a collection of books. It is the librarian who brings all resources together and provides useful information to readers. In addition to managing regular operations of the library, Librarian also helps in using the print and electronic resources and guides the users towards achieving their personal and academic goals. The librarian also provides other information services including providing guidance to users in using the library resources, coordination with user groups to host public programmes and also assists differently abled users.

Review of Literature

Rajaratnam Chetty (2007) conducted a case study on District Central Library of Anantha Puram. According to the author, it was opined that the library was a successful community information centre. The information needs of different segments of society should be considered. Additionally, it should plan its services based on the information needs of these different segments of society. The potential of information and communication technologies should be harnessed to accomplish this. The public libraries should create valuable community information directories (CIDs) of various categories such as 1) Community need and services 2) Business information 3) Recreation and Leisure 4) Resources for family members 5) Community facts and figures and make them available through the websites. For this purpose, the public libraries should create their own website and disseminate information to the masses through resources sharing networking.

Methodology

The questionnaire was designed to get the opinions of librarians on strengths, weakness, and plans for future development of their respective libraries. Librarians of the all 13 DCLs were interviewed in order to identify

their views on the district central library's functioning in the state of Andhra Pradesh. The views of the Librarians and their suggestions were separately presented in this paper.

Findings

Working hours

All the libraries work from morning 8 A.M to evening 8 P.M except Friday and government holidays.

Collection

A question has been put to the respondents to provide the details of total collection of their libraries including textbooks, reference books, directories, Encyclopaedias, manuscripts etc. The replies given by them are presented in Table 3.2

Table 3.2: Distribution of libraries according to their collection

S. No.	District	Book Collection	Rank
1	Srikakulam	45940	11
2	Vizianagaram	22587	13
3	Vishakhapatnam	53159	6
4	East Godavari, Kakinada	83000	2
5	West Godavari, Eluru	121869	1
6	Krishna, Machilipatnam	77560	3
7	Guntur	70807	4
8	Prakasam, Ongole	65106	5
9	Nellore	46250	10
10	Chittoor	49000	9
11	Kadapa	51166	7
12	Kurnool	49500	8
13	Ananthapuram	36250	12

It is evident from the table 3.2 that West Godavari library has attained first rank in having highest book collection followed by East Godavari DCL

with 2nd rank, Krishna district got 3rd rank in this regard. Vizianagaram DCL is in the least position in holding the book collection.

Membership

The respondents were asked to mention the membership enrolment of the library in their libraries. The replies given by respondents are given in Table 3.3.

Table 3.3: Enrolment of library Membership

S. No.	District Central Library	Number	Rank
1	Srikakulam	7755	7
2	Vizianagaram	5971	11
3	Vishakhapatnam	4967	13
4	East Godavari, Kakinada	8876	5
5	West Godavari, Eluru	7162	9
6	Krishna, Machilipatnam	5118	12
7	Guntur	9652	2
8	Prakasam, Ongole	10252	1
9	Nellore	7928	6
10	Chittoor	9135	3
11	Kadapa	6473	10
12	Kurnool	7167	8
13	Ananthapuram	8878	4

It is evident from table 3.3 that Prakasam library (10252) is in first place in enrolling the membership followed by Guntur library (9652) and Chittoor (9135). It is clear from the table, Visakhapatnam District Central Library is in the last place (4967) in enrolling the members compared to other District Central Libraries.

Sufficiency of manpower

A question has been asked to the respondents to know whether they have sufficient man power in their libraries. The replies given by them are presented in table 3.4.

Table 3.4: Sufficiency of library staff in District Central Libraries

Reply	Number	Percentage
Yes	5	38.46
No	8	61.54
Total	13	100

It is clear from Table 3.3 that majority of the libraries (61.54%) do not have sufficient staff and the remaining libraries (38.46%) have sufficient staff.

Adequacy of library budget

In order to know the adequacy of budget allocated to the libraries, a question has been posed to the respondents on budget allocations to their libraries. The reply given by the respondents are placed in Table 3.5.

Table 3.5: Distribution of respondents according to their opinion on budget sufficiency

S.No	Adequacy of budget	Numbers	Percentage
1	Adequate	7	53.85
2	Neither adequate nor inadequate	4	30.77
3	Inadequate	2	15.38
Total		13	100

Table 3.5 elucidates that half of the libraries (53.85%) get adequate budget, followed by neither adequate nor inadequate (30.77%) and the remaining revealed that their budget is Inadequate (15.38%).

Library services

The libraries are offering different services like Circulation, Reference, CAS, ILL service, Bibliography, Online /Internet service, Photocopy etc.

A question has been posed to respondents to know what kind of services they are providing to their members. The replies given by the respondents are shown in table 3.6.

Table 3.6: Provision of library services in District Central Libraries

District wise	Circulation	Reference	CAS	ILL	Bibliography service	Online	Photocopy	Children Literacy
Srikakulam	√	√	√	√	√	√	√	√
Vizianagaram	√	√	√	√	√	√	√	√
Visakhapatnam	√	√	√	√	√	√	√	√
East Godavari, Kakinada	√	√	√	√	√	√	√	√
West Godavari, Eluru	√	√	√	√	√	√	√	√
Krishna, Machilipatnam	√	√	√	×	√	√	√	√
Guntur	√	√	√	√	√	√	√	√
Prakasam, Ongole	√	√	√	√	√	√	√	√
Nellore	√	√	√	√	√	√	√	√
Chittoor	√	√	√	×	×	√	√	√
Kadapa	√	√	√	×	×	√	√	√
Kurnool	√	√	√	×	×	√	×	√
Ananthapuram	√	√	√	√	√	√	×	√

Table 3.6 reveals that majority of the libraries are offering Lending, Reference and Current awareness service, The “Inter library loan” service is not offered by Krishna, Kadapa, Kurnool, Chittoor District Central Libraries. Similarly the bibliography service is not offered at Kadapa, Kurnool and Chittoor District Central Libraries. All the District Central Libraries are offering online library

services through the Internet. All the District Central Libraries are providing internet facility in their libraries for a nominal cost of rupees 10/- per hour.

This service is very useful to the students and unemployed youth who needs the Internet service for their research activities as well as for applying new jobs, participating with online mock examinations. Majority of the libraries are offering photocopy service except two libraries. Those are Kurnool and Anathapuram Libraries. The service is under repair. The local library authority is on course of restoring the photocopy service at these libraries. The children literacy service is offered by all the District Central Libraries of Andhrapradesh.

Display of Government schemes and employment news

This is an alert service provided to support the unemployed youth and students by displaying the news on admissions, job opportunities, etc on library notice boards. A query has been placed before the respondents to specify whether respective libraries are displaying circulars, notifications of government etc regarding employment and government schemes. The replies given by the respondents are presented in table 3.7

Table 3.7: Display of Government circulars /schemes

Reply	Number	Percentage
Yes	13	100
No	0	0
Total	13	100

The above table 3.7 portrays that all the libraries (100%) are displaying government circulars/news clippings on government schemes and job opportunities

Problems encountered in running the library

Public libraries are flocked with problems such as lack of sufficient budget, insufficient manpower and lack of skilled manpower to search information from electronic resources. At present Indian public libraries are considered as warehouse of recreation of reading material. In this regard, a question has been asked for librarians to mention the problems that they are facing in their respective libraries. The replies given by the respondents are given below.

1. All the librarians unanimously expressed that they are getting insufficient budget sanctions to their libraries.
2. At present there are 40% vacancies in the District Central Libraries. The District Central Libraries of Krishna and Vizianagaram are not having fulltime librarians. Similar cases are found in other libraries in the cadre of Grade-I and Grade-II Library Assistants.
3. Lack of Training to staff on ICT to retrieve information through online resources.
4. There is a demand to open the library extra hours at West Godavari DCL but it is not possible due to lack of sufficient staff.
5. AC facility required at reference section of Krishna DCL because it is on top floor of the building
6. The female users are demanding for a separate reading hall for them at Guntur District Central Library. They need separate section of competitive exam books and writing pads for preparation
7. DCL Visakhapatnam is facing parking problem as it is shifted to commercial area surrounded by cinema theatre and luxury hotels.
8. There are no sanitation facilities for the readers at Guntur DCL for users.
9. The Nellore District Central Library is in the old building and it is facing drainage problems in the rainy season.
10. All the librarians expressed their dissatisfaction on availability of quality fiction books in the market after year 2000.

11. Majority librarians mentioned budget allocation for books is very nominal and need to increase to meet the demands from student community.
12. All the librarians said that they are not getting their share of library cess from the local bodies.

Suggestions given by Librarians for developing the District Central Libraries

The following are main suggestions given by the Librarians for the District Library development in AP state.

- The collection of Library Cess must be credited to library accounts to develop the libraries effectively
- Allocation of funds for purchasing books must be increased to satisfy the information needs of library users.
- Linking of all public libraries in the state for promoting inter library loan facilities

Conclusion

Generally, the librarians are associated with books, journals, magazines, and newspapers etc. In the modern society, the librarian's role changed to technological, technical and social needs. The change in technology resulted the librarian's attitude and work cultures. The modern librarians are maintaining information in many formats like e-books, e-magazines, electronic data bases, online newspapers, audio / video recordings, maps, manuscripts, images /other graphic material, and other web-based resources. The librarians are often respected by authors / scholars in their works by thanking the them for their contributions to gather the literature for their publications. Usually, the librarians are mentioned in the acknowledgement section of their publications.

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Currency Dynamics and Economic Resilience: The Impact of USD Fluctuations on Sri Lanka's GDP Growth Prospects

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Geethma Yahani Pathirana², Anuja Akalanka Lokeshwara²

ABSTRACT

This study examines the relationship between the United States Dollar (USD) fluctuations and the Gross Domestic Product (GDP) growth of Sri Lankan economy. While many studies in the international arena have investigated the impact of USD fluctuations on GDP growth, few have focused on Sri Lanka, a country that has experienced civil war, numerous economic downturns, the COVID 19 pandemic. Using secondary data from the Central Bank of Sri Lanka and the Department of Census and Statistics of Sri Lanka from Q1 2010 to Q4 2022, the study employs a comprehensive set of advanced econometric and statistical techniques test to identify long-term and short-term cointegration among the variables. The findings highlight the study's contribution to understanding how the USD's global influence effects on the Sri Lankan economy, revealing a significant negative impact on GDP growth. Future research directions are targeted exploring policy interventions to mitigate the adverse effects of USD fluctuations and examine their interaction with exchange rate fluctuations. Such research will enhance understanding of the challenges and opportunities facing Sri Lanka in a globalized economy. Policymakers can use this knowledge to improve trade practices and better manage economic stability in Sri Lanka.

Keywords: Auto Regression Distributed Lag, Gross Domestic Production, Fluctuation, Sri Lankan Economy, Time Series Analysis, US Dollar

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Introduction

Sri Lanka, an island nation in the South Asian region, has experienced significant economic growth as it transitions from an agriculture-based economy to industry and service-oriented economy. As an important player in regional trade and economic connections. In 2022, its GDP of the economy was LKR 24,148 billion (USD 77.1 billion). The USD, as the world's principal reserve currency, significantly impacts global trade and economies, including Sri Lanka (CBSL, 2022). USD fluctuations are influenced by factors such as the Sri Lankan rupee's (LKR) depreciation, monetary policies, and political instability. Among of these factors may affect confidence and exchange rates (CBSL, 2022).

This study focuses on the significant fluctuations of the USD and its potential impact on the growth of GDP in Sri Lankan economy, addressing the lack of literature on how USD fluctuations affect GDP growth in Sri Lanka. It emphasizes the importance of understanding exchange rate dynamics and their broader implications on economic growth in emerging economies like Sri Lanka. This study aims to investigate the intricate relationship between USD fluctuations and Sri Lanka's GDP growth, with specific objectives including analyzing the direct impact identifying underlying mechanisms and providing empirical evidence for policy recommendations.

The significance of this study lies in its potential implications, academic contributions, and practical relevance for businesses and investors. The literature review draws from various theoretical frameworks like Balassa Samuelson theory and empirical studies, highlighting a scarcity of focused research in Sri Lankan literature. The scope of the study includes analyzing data over a significant period from Q1 2010 to Q4 2022 and employing advanced econometric models.

Purpose

The study aims to investigate the impact of USD fluctuations on Sri Lanka's GDP growth as its primary objective.

Methodology

The study employs a quantitative research design, utilizing secondary data from credible sources such as the reports from Central Bank of Sri Lanka (CBSL) and the Department of Census and Statistics. The quarterly data spans from Q1 2010 to Q4 2022 and includes key variables like GDP growth, USD fluctuation, inflation, interest rates, and trade openness. Analysis techniques are; descriptive statistics to summarize dataset characteristics, correlation coefficient analysis to assess the strength of associations between variables, unit root analysis to test for stationarity, and cointegration analysis using the Johansen cointegration test. The ARDL model is employed to analyze both short-term and long-term dynamics. Diagnostic tests, such as the Breusch-Godfrey test for autocorrelation and the Breusch-Pagan test for heteroscedasticity, along with robust standard errors, ensure reliability. The GARCH (Generalized Autoregressive Conditional Heteroskedasticity) model is used to estimate USD fluctuation and analyze through STATA 14 exchange rate volatility, helping to understand volatility clustering in exchange rates. This robust approach, combining descriptive and inferential statistical techniques, provides a comprehensive understanding of the impact of USD fluctuations on Sri Lanka's GDP growth.

Results

The unit root test used for the to check stationarity of the variables. So, the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests were used.

Table 1: Results of unit root test

Variable	ADF Test		PP Test	
	Level	First Difference	Level	First Difference
GDP Growth	0.00	0.00	0.00	0.00
USD Fluctuation	0.96	0.73	0.00	0.00
Inflation	1	0.99	0.00	0.00
Interest Rate	0.02	0.01	0.00	0.00
Trade Openness	0.00	0.00	0.00	0.00

Source: Survey data (2022)

The stationarity tests indicate that GDP growth is stationary in both levels and first differences, suggesting no long-term trend. USD fluctuation exhibits non-stationarity at the level (ADF test) but becomes stationary after the first differencing (PP test). Inflation and interest rates are stationary in levels (PP test) and become stationary after the first differencing (ADF test). Trade openness is stationary in both levels and first differences, indicating stable trade policies.

Table 2: Results of USD fluctuation using GARCH (1,1) model

Variable	Coefficient	St. Error	Z statistics	Prob
Constant	0.00	0.03	0.37	0.00
Variance equitation				
C	0.55	1.01	0.55	0.58
RESID (-1) ^2	0.42	0.50	2.79	0.00
GARCH (-1)	0.01	0.04	0.12	0.00

Source: Survey data (2022)

The GARCH model using measuring the fluctuation in the US Dollar. GARCH Model results reveals a small but statistically significant positive mean term, suggesting an average positive return. The variance equation shows a non-significant constant, indicating minimal baseline volatility. Lagged squared residual significantly impact current volatility, while lagged GARCH terms also influence volatility, though to a lesser extent.

Table: Results of ARDL model test (Long Run Estimation)

Variable	Coefficient	St. Error	T statistics	Prob
Dependent variable	-0.11	0.12	-9.08	0.00
USD Fluctuation	-0.07	0.01	-5.23	0.00
Inflation	-0.03	0.26	-0.13	0.89
Interest rate	-0.35	0.19	-1.87	0.06
Trade openness	0.05	0.01	3.49	0.00
Cons	17.10	3.41	5	0.00

Source: Survey data (2022)

According to the primary objective the results indicate that USD fluctuation shows a significant inverse relationship with GDP growth of the Sri Lankan

economy, with a coefficient of -0.07 (t-statistic = -5.23, $p = 0.00$), aligning with economic theories. Inflation's coefficient is -0.03 (t-statistic = -0.13, $p = 0.89$), suggesting no significant long-term impact. The interest rate has a coefficient of -0.35 (t-statistic = -1.87, $p = 0.06$), indicating a potentially negative relationship that warrants further investigation. Trade openness has a significant positive relationship with GDP growth, with a coefficient of 0.05 (t-statistic = 3.49, $p = 0.00$).

Discussion

This study critically examines the research findings in the context of existing literature, highlighting the significance of the results and their implications for understanding the impact of USD fluctuations on Sri Lanka's GDP growth. By comparing the study outcomes with previous research, the discussion validates the research outcomes and contributes to the ongoing scholarly discourse on currency dynamics and economic performance. This finding is consistent with Ramoni and Romero (2022), which found a considerable negative effect of exchange rate fluctuations on economic growth. This means that higher exchange rate volatility is related to slower economic growth rates. The findings showed that the impact of exchange rate fluctuation on economic growth varied according to the extent of corruption in the nations analyzed. Countries with differing levels of corruption responded differently to exchange rate volatility, implying that corruption plays a role in mitigating the impact of uncertainty on economic growth. Hence, the LKR would adore this setup. This finding is consistent with Senadheera (2015), which concluded that currency depreciation would be damaging to trade in the long run. These findings are clear in Sri Lanka, where a similar dynamic has existed for decades, with the LKR's depreciation contributing to an increase in the trade imbalance.

Conclusion

This study explores the impact of USD fluctuations on Sri Lanka's GDP growth using an ARDL model. Our findings reveal a significant negative impact of USD fluctuations on GDP growth, supported by rigorous data analysis including unit root tests, and various diagnostic checks.

Understanding this relationship is crucial for policymakers and stakeholders in making informed decisions regarding fiscal and monetary policies aimed at stabilizing the economy and mitigating adverse effects caused by currency fluctuations. Future research could further explore additional external factors like exchange rate influencing this dynamic. The study acknowledges limitations such as data constraints, model constraints, and generalizability issues.

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Utilization of Institutional Repository of Kotelawala Defence University with Special Reference to Undergraduates of the Faculty of Law

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ABSTRACT

The study explored the utilization of institutional repository (IR) among Law Undergraduates at Kotelawala Defence University (KDU), assessing awareness, purpose of use, pattern of access and perception of undergraduates as it is uncertain whether the law students at KDU possess knowledge of the IR and utilize it for their academic endeavours. This study applied a mixed methods research design employing qualitative and quantitative methods. A questionnaire and a focus group discussion were used to collect data from the sample of 101 respondents. Descriptive statistics were adopted to analyze the data. Key findings showed a moderate awareness of KDU-IR among respondents regarding its existence and benefits. The prominent sources of awareness were library Orientation programs and library websites. Respondents aware of KDU-IR had highly utilized it for their learning tasks, finding theses and research papers, searching information not available in other formats, updating their knowledge and finding author information. The majority of them used it for learning support and to find author information. However, overall utilization among the undergraduates of the Faculty of Law was at a moderate level. The majority of the students who were aware of KDU-IR held a positive perception. In contrast, others needed a clear understanding of the content covered and its relevancy and quality. Most students prefer to access the IR at home to download information. They also suggested incorporating additional resource categories into KDU-IR, along with modifying the user interface and ensuring the provision of up-to-date information. The study found that lack of awareness of the function, how to use it, and continuous power interruptions are the key barriers that hinder undergraduates' utilization of IR. The study recommends addressing

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barriers through continuous awareness programs, assessing strategies, and upgrading KDU-IR services for better alignment with user information needs.

Keywords: Academic libraries, Undergraduates, Institutional Repository, Open Access, KDU-Sri Lanka

Introduction

In recent years, the transformation in scholarly information has been marked by new applications of digital technologies such as Open Access, linked data, Artificial intelligence (AI), Application Program Interface algorithms (API), machine learning, and natural language processing. (Bahrami et al., 2018). The digital revolution has considerably influenced scholarly publishing, creating challenges with the concept of Open Access (Dury, 2017). These advancements in emerging technologies underpin the importance of institutional repositories (Digital Libraries) in facilitating students to access focused knowledge across disciplines (Gidlund & Sundberg, 2022; Schwandt, 2020, 2022; Margo et al., 2017). Therefore, the concept of Institutional Repositories (IRs) came into existence in information dissemination to overcome access barriers.

An institutional repository is a repository that enables access to a variety of electronic resources, encompassing research articles, newsletters, journal articles, AV materials, and images that pertain to a particular institution (Bankier et al., 2009). Kotelawala Defence University (KDU) established the KDU Institutional Repository (KDU-IR) in response to the changing nature of higher education. This repository, especially for law students pursuing their undergraduate degrees, provides an essential forum for exchanging and disseminating academic research. KDU-IR promotes collaborative education and ongoing learning by giving unrestricted access to various scholarly resources. However, it remains uncertain whether the law students in their third year at KDU possess knowledge of the university's institutional repository and utilize it for their academic endeavours. Reviewing past literature, the researcher came to know that no single study has been conducted on the utilization of KDU-IR by its undergraduate Law students.

Therefore, this study aims to provide a comprehensive understanding of current usage, the purposes for which the repository is utilized, the patterns of information-seeking, the obstacles and barriers encountered by the students, and develop effective strategies for overcoming these hindrances and enhancing IR utilization by undergraduates at KDU. Moreover, it is expected that this study will provide suggestions and approaches that similar institutions can implement to improve the efficiency of their IRs.

Objectives

Main objective

To Explore the utilization of the institutional repository of Kotelawala Defence University (KDU-IR) by the undergraduate students in the Faculty of Law.

Specific objectives

- (i) To Identify the awareness about the KDU-IR among undergraduates
- (ii) To investigate the purpose of using the KDU-IR
- (iii) To analyze the patterns of accessing the institutional repository
- (iv) To measure the level of perception of undergraduate students of KDU-IR.

Methodology

This study adopted an inductive approach integrating a mixed-method research design using both qualitative and quantitative approaches. The population of this study is 137 students who are in 3rd year in the Faculty of Law at KDU. The sample selected 101 respondents out of 137 total populations based on the Krejcie and Morgan (1970) table. Quantitative and qualitative data collected from the respondents to evaluate the variables, including awareness, purpose, patents, and perception of students that affect in the utilization of KDU-IR. The student enrollment list 2021 was used to collect the students' email addresses.

The researcher used a convenient sampling technique to collect primary data by sending a questionnaire to the total population. The study employed a self-administered semi-structured questionnaire, closed-ended questions, a few open-ended questions, and a focus group discussion to collect data for this study. Descriptive statistics was used to analyze quantitative data, while qualitative data was analyzed through narrative text analysis. Though the sample is 101, only 76 respondents to the questionnaire responded, which indicates that the respondent’s rate was 75.2%. All the analyzed data was presented appropriately in a table or graph.

Results

Awareness of KDU-IR by undergraduates of the Faculty of Law

It was observed that 64.5% of the respondents were aware of KDU-IR, while 35.5% were unaware of the KDU-IR. Therefore, this finding indicates that the majority of the students were aware of the existence of KDU-IR.

The source of awareness about KDU-IR by undergraduates of the Faculty of Law

library orientations conducted by library staff was the prominent source that helped undergraduates be aware of KDU-IR, representing 28.6% followed by 24.5% of respondents being aware through the library website. Additionally, 22.5% were aware of their friends and lecturers, while 2.0% were aware of the faculty staff.

Awareness of the benefits of KDU-IR

Table- 1 Awareness of Benefits

Benefit	Fully Not Aware	Not Aware	Slightly Aware	Aware	Fully Aware	Total	Mean
Full-text Access	17.1%	7.3%	14.6%	51.2%	9.8%	100%	3.29
Relevance to Curriculum	9.8%	17.1%	9.8%	46.3%	17.1%	100%	3.44
Learning Support	2.4%	24.4%	19.5%	41.5%	12.2%	100%	3.37

Table -1 illustrates that there was a dynamic level of awareness of the benefits of KDU-IR among the 3rd year undergraduate students of the faculty of Law. Accordingly, students were aware of all the benefits of KDU-IR, and the majority of them recognized full-text access as the most valuable benefit of It, following its relevance to the curriculum.

Purpose of Use

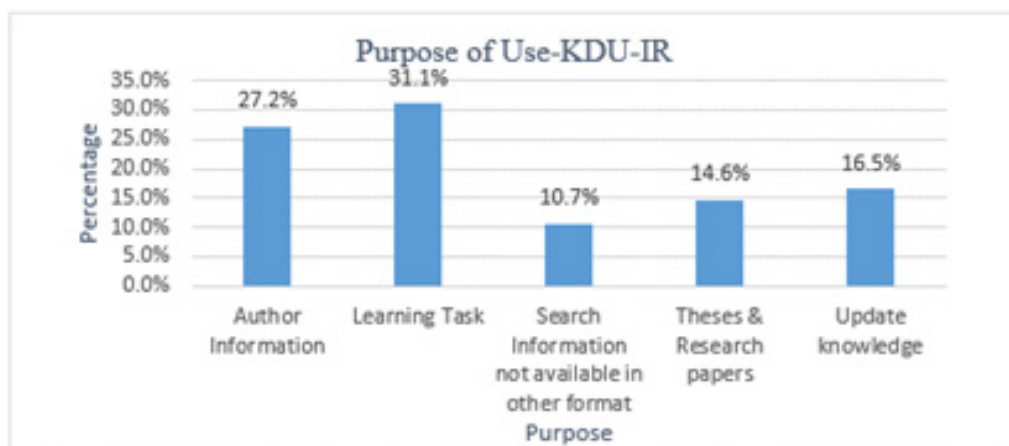


Figure -1 Purpose of Use KDU-IR

The figure -1 illustrates that all the undergraduates who are aware of KDU-IR use it for learning tasks, author information, search information not available in other formats, theses, and dissertations, and to update their knowledge. Further it reveals that majority, representing 31.1%, used the KDU-IR for learning tasks.

Discussion

Descriptive data collected from the students uncovered that majority were aware of KDU-IR while a significant portion was not. Therefore, identifying key factors that affect awareness is crucial to maintaining an effective IR service. This study found that students were aware of IR through various channels, and library orientation programs were the primary sources among them. This finding confirmed by (Gunasekera et al., 2021) that library orientation was the primary source of user awareness.

Although the IR was used for different purposes by the students, the majority were used to get support in different learning tasks, whilst a significant proportion used it to find author information for their academic works. Notably, there was a low utilization of IR for theses and research works, highlighting the students' ignorance and lack of understanding towards KDU-IR.

Moreover, it uncovered a dynamic pattern of undergraduates accessing the KDU-IR, and the majority of them accessed it once a month. Accordingly, the findings highlighted that students did not perceive the IR as the primary source for their information needs. Furthermore, the findings showcase that students preferred to access the IR at home rather than while travelling due to the poor reception of mobile networks in Sri Lanka. Also, the undergraduates recognized the benefits associated with full-text access, relevance to curriculum and learning support through KDU-IR. Apart from that, the focus group discussion concluded that submitting papers and sharing knowledge are recognized as benefits gained through the KDU-IR. This study revealed the students' belief that IR is helpful to their study work, especially for their exams works and project work. Confirming this finding (Akinlolu, 2023) asserts that many students used digital libraries for exam preparation.

Conclusion

The study showed a moderate awareness level among 3rd-year law undergraduates regarding the KDU-IR, but it was below a satisfactory level. The primary sources of awareness were orientation programs conducted by the library staff and the university's library website. Students recognize its benefits for academic support in various ways, emphasizing its relevance and full-text access as valuable benefits. The primary purpose for accessing the institutional repository was to seek support for various learning tasks, highlighting its role as a valuable academic resource. However, challenges such as lack of familiarity with IR functions, power failures, and interface issues hinder its full utilization. Therefore, Future initiatives should be arranged to ensure reliable power sources, conduct comprehensive user training programs, raise awareness about the IR's functionalities, and implement interface enhancements to create a more user-friendly environment.

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Study on User Satisfaction of Information Services Provided by the Refinery Technical Library

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ABSTRACT

The purpose of this study was to assess user satisfaction with the quality of existing resources and identify future information needs for the Refinery Technical Library. Library users typically visit the library to solve technical problems related to their work and to gather information to help them upgrade their knowledge. Undergraduate trainees from engineering faculties and technical institutes in Sri Lanka and overseas also use the library to compile their industrial training reports. The library conducted a study in April 2024 to assess user satisfaction with its resources and services. A quantitative research method was used to collect primary data using a self-administered questionnaire. The sample was a randomly selected group of 200 who used the library during the survey period. The study population consisted of executive and non-executive technical and non-technical staff of the refinery as well as industrial trainees of the training department. Accordingly, a total number of 200 questionnaires were distributed and only 132 responses were received showing a (66%) response rate. The data was analyzed using MS Excel and the results were presented in the form of percentage values. The users' perception of the library is evaluated based on three main categories: the collection of materials available, the facilities offered, and the quality of services provided by the 20 yes-no questions. According to the results, the majority (73%) of the respondents expressed satisfaction with the services provided by the library. Overall, users had a positive perception (89%) of the courtesy and helpfulness of library staff. However, many users reported (56%) that the library collection was not adequate for their fields of study and due to lack (81%) of latest editions of textbooks and standards. It was pointed out that many users (95%) are unable to access the library's online catalogue due to lack of adequate terminals with SAP connection. Users were satisfied with the seating, temperature, and space of the library. Users have provided valuable suggestions for the future development of the refinery library.

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As a key information provider for the petroleum industry in the country, the Sapugaskanda Oil Refinery Technical Library must plan and execute appropriate measures to ensure that its resources and services meet the highest level of user satisfaction.

Keywords: User Satisfaction, Information Needs, Library Services,
Library collection

Introduction

The Ceylon Petroleum Corporation (CPC) was established by Act No. 28 of 1961 to import, distribute, and market petroleum products throughout the island. The Sapugaskanda Oil Refinery began operations in August 1969, initially refining 38,000 barrels of crude oil per day, later expanding to 50,000 barrels per day.

The CPC Refinery Division Technical Library was established in 1971 to meet the information needs of refinery permanent staff members. The library has a comprehensive collection of standards, refinery manuals, technical books, and other essential literature and materials. The Refinery Library is mainly a research and reference library and it is the center where information is provided to resolve the technical problems occurring in the crude oil refining process in the refinery plant.

Presently, the Library has more than 5000 books, manuals, periodicals and standards. The content of these materials primarily focuses on engineering disciplines such as petroleum chemical processes, mechanical, electrical, civil, instrumentation, inspection, management, economics & scheduling, fire and safety. In addition, the library collection includes several reputed journals of the oil/gas and petroleum industry. Also includes of a collection of research projects and reports. Furthermore, the library has expanded its services to accommodate trainees in various disciplines.

In 2012, the Library started automating its index by entering data into a database created with WINISIS software. Recently, in 2020, the Technical Library installed a fully automated library system using the KOHA Integrated Library System, marking the first significant update to the library system within nearly fifty years.

User satisfaction is a key indicator of quality of services in special libraries. Special libraries have collections that serve particular user communities or have a particular subject focus. These libraries cater to the needs of professionals, researchers or enthusiasts in a particular field or industry. They differ from public or academic libraries, since their services are specifically tailored to the unique needs of their users.

Through an evaluation of user satisfaction of the quality of services will provide valuable feedback to improve their services.

Research Problem

Identifying the user information needs of each user group is critical to providing satisfactory services to library users. Especially in a special library, services should be modernized to improve traditional service methods.

Diverse information needs of users require a well-equipped and organized library that can effectively meet their demands. It appears that no evaluation has been done of the services offered by the Refinery Technical Library to clients.

Users have a negative perception and satisfaction with the services available in the library, the attitude and competence of the library staff, the collection and physical facilities of the library and access to the online catalogue through the SAP network.

Objectives

The main objective of this study is to understand the reader's perception of the information services provided by the Refinery Technical Library. This includes conducting a comprehensive survey to understand the needs and visions of library users, about current library services, behavior and skills of library staff, pooling of resources and assessment of the physical facilities of the library itself. User feedback is welcome and will be considered in future decision-making processes.

The other objectives of this study are as follows:

- To examine the feedback from readers regarding the nature of resource collection.
- To provide recommendations for improving the level of service quality.
- To determine whether it is easy to access information using the online catalogue through KOHA software.

Research Methodology

A survey was conducted among a randomly selected group of 200 regular users. A quantitative research method was used to collect primary data using a self-administered questionnaire. Data were collected using a questionnaire that included users from all strata. The population of the study was defined as the users who used the library during the survey period. The study population consisted of executive and non-executive technical and non-technical staff of the refinery as well as industrial trainees of the training department. The study counted 955 registered library members including 83 executive staff, 797 non-executive staff, and about 75 industrial trainees. Accordingly, a total number of 200 questionnaires were distributed and only 132 responses received showing a 66% response rate. The 20 yes-no questions were distributed to assess user satisfaction with the library collection, facilities, services, and customer care attributes of the reader services. The data was analyzed using MS Excel and the results presented in the form of percentage values.

Results and Discussion

Table 01: Gender Representation

Gender	No of Respondents	Percentage (%)
Male	109	83
Female	23	17
Total	132	100

Source: Survey Data

Table 01 revealed that the majority of the respondents in the study were Male users (83%) while (17%) were Female users.

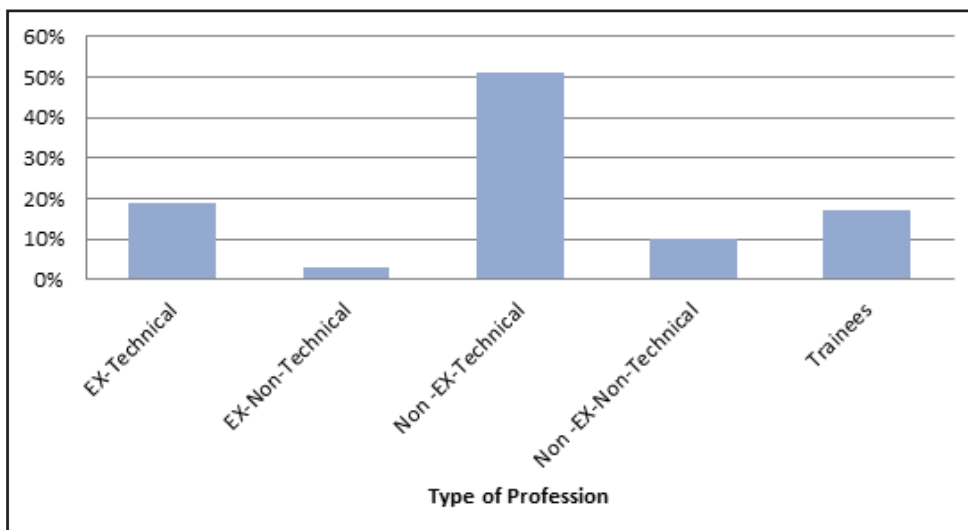


Figure 02: Professions of the Respondents

Figure 02 shows that most of the respondents (51%) Non-Executive Technical Staff. The study found a lower response rate (3%) for Executive Non-Technical staff.

Table 03: Types of Departments

Departments			Departments		
Civil	5	3%	Operation	19	14%
Economics	1	2%	Project	10	8%
Electrical	13	9%	Technical Services	7	5%
Fire & Safety	8	6%	Workshop	14	11%
Inspection	7	5%	Personal Admin	2	2%
Instrument	11	8%	Internal Audit	2	2%
Laboratory	8	6%	Finance	3	2%
Training Center	22	17%			

Source: Survey Data

As shown in table 03, highest number of the Participants in the study were industrial trainees (16.66%).

Table 04: User Satisfaction with Library Collection

Question No	Question	Yes	%	No	%
01	Can you find relevant information about any of your queries in the library collection?	96	73%	36	27%
02	Is the library book collection adequate for your academic research portfolio?	58	44%	74	56%
03	Are the textbooks and standards updated?	51	39%	81	61%
05	Do you receive information about new books acquired by the library?	13	10%	119	90%

Source: Survey Data

According to Table 04, the majority of users (73%) reported positive feedback regarding their information needs being met by the library collection, (56%) of them indicated resources not adequate for their studies or research. Also, most users (61%) expressed negative feedback about the updated versions of textbooks, manuals, and standards. Very high number of respondents (90%) gave negative feedback for getting information about new arrivals because they were unable to use the web OPAC in the refinery's technical library.

Table 05: User Satisfaction with General Facilities

Question No	Question	Yes	Percentage	No	Percentage
04	Does the layout of the library's shelves provide an easy way to find the book?	105	80%	27	20%
10	The library provides you with a comfortable study space do you get?	86	65%	46	35%
11	Is the study area quiet enough to work peacefully?	116	87%	16	13%
12	Are the chairs and tables provided in the library comfortable?	70	53%	62	47%
13	Is the lighting level in the library adequate?	112	85%	20	15%
14	Is the temperature in the library appropriate?	111	84%	21	16%
15	Does the library have an environment conducive to reading and seeking information?	89	67%	43	33%
16	Are you satisfied with the location of the library?	65	49%	67	51%

Source: Survey Data

The majority of responses to the general facilities were positive, while higher percentage (51%) had negative feedback about the library's location.

Table 06: User Satisfaction with General Services

Question No	Question	Yes	Percentage	No	Percentage
06	Did you know that a photocopy service is available in case of emergency?	19	14%	113	86%
07	Does the librarian respond to your information needs with interest and courtesy?	117	89%	15	11%
08	Are there times when the technical library does not meet your information needs?	40	30%	92	70%
09	Are you satisfied with the steps to preserve the collection of rare old books?	100	75%	32	25%

Source: Survey Data

The majority of the responses were positive regarding the general services, but the photocopy service received negative feedback from the highest number of users (86%).

Table 07: User Satisfaction with Online Public Access Catalogue via Sap Connection

Question No	Question	Yes	%	No	%
17	Are you aware of the recently introduced KOHA library software?	24	19%	108	81%
18	Have you been facilitated through the SAP network to use it?	12	10%	120	90%
19	Several terminals are installed in the technical library Do you know that facility is provided?	16	12%	116	88%
20	Through the refinery's internal SAP network do you know to explore the information using the software?	07	5%	125	95%

Source: Survey Data

As indicated in Table 7, most respondents provided negative feedback regarding the Online Public Access Catalogue via Sap Connection.

Conclusion

Considering the user needs, it was seen that the reference collection i.e. standards and textbooks are not updated and not balanced. The coverage of the subject areas is not enough and the awareness about the provision of photocopy and electronic scanning services is also seen to be low mainly because they were unaware of those.

It was evident that there was no opportunity to use the new technology service facilities and that many services were operating based on traditional manual methods.

It was also implied that the lack of infrastructure hinders many services, such as a lack of adequate terminals to access to the Library online catalogue.

Based on the results obtained, it was concluded that Refinery Library should improve its collection and services based on readers' suggestions and opinions to improve reader satisfaction.

Users were satisfied with the seating, temperature, and space of the library. Users have provided valuable suggestions for the future development of the refinery library.

The majority of the respondents expressed satisfaction with the services provided by the library. They were particularly pleased with the prompt service at the issue desk. Overall, users had a positive perception of the courtesy and helpfulness of library staff.

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A Study on Students' Ability to Identify Information Resources: Special Reference to Grade 9 Students in Selected Schools under the Divisional Education Office, Tellippalai

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ABSTRACT

In today's digital age, information is seen as essential for socio-economic development. It is indispensable for every human being to have the basic skills to acquire, evaluate, and use the information they need. To develop information handling skills among students, the government has introduced the Learning Resource Centers (LRC) in schools. LRCs are expected to provide a self-learning experience for students to obtain the information they need on their own since early childhood. Therefore, this study aims to examine the 'ability of students in identifying information resources in LRC. The study was conducted using mixed methods with quantitative and qualitative data. Total population of the study was 750 students and 254 students were selected as sample by the adoption of Krejcie & Morgan sampling method under the Divisional Education Office, Tellippalai. 252 students studying in Grade 9 in nine schools only responded the questionnaire. Response rate was 99%. All the teacher-librarians working in the nine schools were also selected as samples. Data was collected from the students through focus group discussions and questionnaires, while from four Teacher Librarians and five teachers in charge of school libraries through interviews. The collected data were analyzed using MS Excel and presented in tables and graphs. Students discover that the availability of information resources in LRCs seems unsatisfactory i.e. 53% (n=95), use of LRC building for other purposes 32% (n=57), disorganization of information resources to get information rapidly 68% (n=123), and lack of internet facilities 78% (n=141). Further, teacher librarians find difficulties

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in guiding students due to the unavailability of information resources, lack of opportunities to acquire library science qualifications and training. Also, teachers find it difficult to promote LRC activities among students, since they are involved in teaching activities in addition to working at LRC. The school higher authorities should facilitate the availability of information resources in such a way that students can learn about them. Avoiding the use of the LRC for other purposes, providing necessary training to teacher librarians, and increasing the number of information resources for the school students have been proposed as recommendations.

Keywords: Information, Information Resources, Information Handling Skills, Learning Resource Center.

தகவல் சாதனங்களை இனங்காண்பதில் மாணவர்களின் திறன் – ஒரு மதிப்பாய்வு

தெல்லிப்பளை கல்விக்கோட்டத்தில் தெரிவு செய்யப்பட்ட பாடசாலைகளில் தரம் 9 மாணவர்களை அடிப்படையாகக் கொண்டது

ஆய்வின் பின்னணி

தகவல் வெடிப்பு யுகத்தில் தகவல்களும், நாளுக்குநாள் பல்கிப் பெருகிக் கொண்டே செல்கின்ற இன்றைய காலகட்டத்திலே கற்றல் வளநிலையத்தின் தேவை, பயன்பாடு என்பன நன்கு உணரப்பட்டுள்ளது. மாணவர்களிடத்தில் சுயகற்றல், தகவல் திறன் என்பவற்றினை வளர்த்தெடுப்பதற்கு பாடசாலை கற்றல் வளநிலையம் வழிகாட்டியாக உள்ளது இத்திறன்களை மாணவர்கள் வளர்த்துக்கொள்வதற்கு தகவல் சாதனங்களை இனங்காண்பது அவசியமான ஒன்றாகும். தகவல் சாதனங்களை இனங்காணும் திறனானது மாணவர்கள் தமக்கு வேண்டிய தகவல்களை தேடிப் பெற்றுக்கொள்ளவும், ஆக்க சிந்தனை, தர்க்க சிந்தனை, படைப்பாற்றல் சிந்தனை, என்பவற்றை வளர்த்தெடுக்கவும் உதவுகின்றது.

ஆய்வு நோக்கங்கள்

1. தகவல் சாதனங்களை இனங்காண்பதில் மாணவர்களின் திறனை மதிப்பிடல்
2. தகவல் சாதனங்களை இனங்காண்பதில் மாணவர்கள் மற்றும் ஆசிரியநூலகர்கள் எதிர்நோக்கும் பிரச்சினைகளை இனங்காணல்
3. பாடசாலை கற்றல் வளநிலையத்தினைப் பயன்படுத்தி மாணவர்களின் தகவல் சாதனங்களை இனங்காணும் திறனை விருத்தி செய்வதற்கான ஆலோசனைகளை முன்வைத்தல்

ஆய்வு முறையியல்

இவ்வாய்வானது கலப்பு முறை ஆய்வாக மேற்கொள்ளப்பட்டது

ஆய்வு வடிவமைப்பு

இவ் ஆய்வில் தகவல் இனங்காணல் படிவம், நேர்காணல், குவிமையக் குழுக் கலந்துரையாடல், மூலம் தரவுகள் திரட்டப்பட்டு, அளவுசார், பண்புசார் முறையில் பகுப்பாய்வு செய்யப்பட்டு கலப்பு முறை ஆய்வாக மேற்கொள்ளப்பட்டது. பண்பு ரீதியான தரவுகள் கருப்பொருள் ரீதியான பகுப்பாய்விற்கு உட்படுத்தப்பட்டதுடன் அளவு ரீதியான தரவுகளின் உண்மை தன்மையை உறுதிப்படுத்துவதற்கும் பயன்படுத்தப்பட்டது.

ஆய்வு மாதிரி தெரிவு

இவ்வாய்வானது யாழ்ப்பாண மாவட்டத்திற்குட்பட்ட வலிகாமம் கல்வி வலயத்தில் தெல்லிப்பளை கல்விக் கோட்டத்திலுள்ள 1AB, 1C, Type II பாடசாலைகளை அடிப்படையாகக் கொண்டு மேற்கொள்ளப்பட்டுள்ளது.

தரவு சேகரித்தலில் நம்பகத்தன்மையைப் பேணுவதற்காக வலிகாமம் கல்வி வலயத்தில் தெல்லிப்பளை கல்விக் கோட்டப் பாடசாலைகளில் 1AB, 1C, Type II பாடசாலைகள் 17 லிருந்து 9 பாடசாலைகள் அவை அமைந்துள்ள நகரம், கிராமம், மீள் குடியேற்றம் என்பவற்றினை அடிப்படையாக கொண்டு படைமாதிரியெடுப்பின் மூலம் தெரிவு செய்யப்பட்டு அப் பாடசாலைகளிலுள்ள 09 நூலக பொறுப்பாசிரியர்களும், தரம் 9ல் கல்வி கற்கும் 252 மாணவர்களும் ஆய்விற்குட்படுத்தப்பட்டுள்ளனர்.

அட்டவணை 1 மாதிரிகளாக தெரிவு செய்யப்பட்ட பாடசாலைகளின் எண்ணிக்கை

பாடசாலைகளின் வகை	பாடசாலைகளின் எண்ணிக்கை	மாதிரிகளாக தெரிவு செய்யப்பட்ட பாடசாலைகளின் எண்ணிக்கை
1AB	4	2
1C	3	2
Type II	10	5

(மூலம் : வலயக்கல்வி அலுவலகம்)

தரவு சேகரித்தல் வழிமுறை

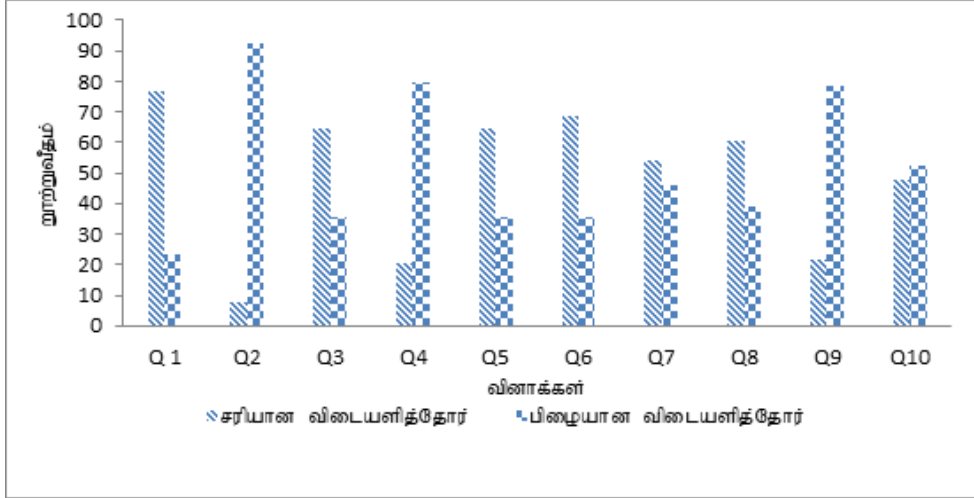
மேற்குறிப்பிட்ட பாடசாலைகளிலுள்ள நூலக ஆசிரியர்கள் படைகொண்ட மாதிரியில் தெரிவு செய்யப்பட்டு மாதிரிகளிடம் நேர்காணல் மூலம் தரவுகள் சேகரிக்கப்பட்டன. அத்துடன் இப் பாடசாலைகளைச் சேர்ந்த தரம் -9 இல் கல்வி கற்கும் மாணவர்கள் படை கொண்ட எழுமாற்று மாதிரியில் தெரிவு செய்யப்பட்டு அவர்களிடம் தகவல் இனங்காணல் படிவம், குவிமையக் குழுக் கலந்துரையாடல் மூலமும் முதலாம் நிலைத்தரவுகள் சேகரிக்கப்பட்டன. மேலும் நூல்கள், சஞ்சிகைகள், ஆய்வுக்கட்டுரைகளில் இருந்து இரண்டாம் நிலைத்தரவுகள் சேகரிக்கப்பட்டு ஆய்விற்குட்படுத்தப்பட்டன.

மாணவர்களிடம் இருந்தும், ஆசிரிய நூலகர்களிடமிருந்தும் பெற்றுக் கொள்ளப்பட்ட தரவுகளின் பகுப்பாய்வு

மாணவர்களுக்கு அகராதி, வாழ்வியற் களஞ்சியம், தேசப்படம், மத்தியவங்கி ஆண்டறிக்கை, வாழ்க்கை வரலாறு, இணையம், கின்னஸ், பத்திரிகை, தேசப்பட புத்தகம், சுரொட்டி, ஆகிய நூலக வளங்கள் குறிப்பிடப்பட்டு அவை தொடர்பான இனங்காணல் திறன் மாணவர்களுக்கு எவ்வாறு உள்ளது என்பது பற்றி சோதிக்கப்பட்டு பகுப்பாய்வு உட்படுத்தப்பட்டுள்ளது இச்சோதனையின் மாணவர்களின் துலங்கலினை அட்டவணை 2 விளக்குகின்றது.

அட்டவணை 2 தகவல்களை இனங்காணல் தொடர்பான மாணவர் துலங்கல்

வீனா இல	விடயம்	சரியான விடை அளித்தோர் %	பிழையான விடை அளித்தோர் %
Q1	ஒரு சொல் தொடர்பான பொருள் விளக்கம் பெறுவதற்காக பயன்படுத்தக் கூடிய சாதனம்	76.6	23.4
Q2	ஒரு விடயம் தொடர்பாக பரந்த விளக்கத்தினை பெறுவதற்கு உதவும் சாதனம்	7.9	92.1
Q3	ஒரு நாட்டின் அமைவிடத்தினை சரியாக இனங்காண்பதற்கு பயன்படும் சாதனம்	64.3	35.7
Q4	இலங்கையின் ஏற்றுமதி இறக்குமதி, வரவு செலவு, நிதி ஒதுக்கீடு என்பவற்றை அறிந்து கொள்வதற்கு பயன்படுவது	20.2	79.8
Q5	பிரசித்தி பெற்ற நபர் ஒருவரின் பிறப்பு, கல்வி, சேவைகள் தொடர்பான விடயங்களை அறிந்து கொள்வதற்கு பயன்படுத்தக் கூடிய சாதனம்	64.3	35.7
Q6	உலகில் நடைபெறும் நிகழ்வுகள், மாற்றங்களை கணப்பொழுதில் அறிந்து கொள்வதற்கு உதவும் ஆவணம்	68.7	35.7
Q7	உலக சாதனையாளர்களை அறிந்துகொள்வதற்கு பயன்படுத்தக் கூடிய சாதனம்	53.9	46.1
Q8	பல்துறை சார்ந்த விடயங்களை நாளாந்தம் அறிந்து கொள்வதற்காக பயன்படுவது	60.7	39.3
Q9	ஒரு நாட்டின் சனத்தொகை பரம்பல், விவசாய செய்கைப் பிரதேசம், கனிய வளப்பரம்பல் என்பவற்றை இனங்காண்பதற்கு பயன்படுவது	21.4	78.6
Q10	டெங்கு நோய் தொடர்பான விழிப்புணர்வை பெற்றுக்கொள்வதற்கு பயன்படுவது	47.6	52.4



உரு 1 தகவல் சாதனங்களை இனங்காணலில் மாணவர்களின் துலங்கல் அட்டவணை 2 அடிப்படையில் மாணவர்களின் தகவல் இனங்காணல் திறனை அறிந்துகொள்வதற்கு பத்து தகவல் சாதனங்கள் வழங்கப்பட்டு அவை தொடர்பாக பரீட்சிக்கப்பட்டது. அதன் அடிப்படையில் அகராதியினை 76.6% மாணவர்களும், வாழ்வியற் களஞ்சியத்தினை 7.9% மாணவர்களும், தேசப்படத்தினை 64.3% மாணவர்களும், மத்தியவங்கி ஆண்டறிக்கையினை 20.2% மாணவர்களும், வாழ்க்கை வரலாற்றினை 64.3% மாணவர்களும், இணையத்தினை 68.7% மாணவர்களும், கின்னஸ் என்னும் தகவல் சாதனத்தினை 20.2% மாணவர்களும், பத்திரிகையினை 60.7% மாணவர்களும், தேசப்பட புத்தகத்தினை 21.4% மாணவர்களும், சுவரொட்டியினை 47.6% மாணவர்களும் இனங்கண்டுள்ளனர். இத்தகவல் சாதனங்கள் பாடசாலை கற்றல் வள நிலையங்களில் காணப்படக்கூடிய சாதனங்களாக காணப்பட்ட போதும் அதிகமான மாணவர்கள் இச்சாதனங்களை இனங்காண முடியாதவர்களாக உள்ளனர். இந்நிலைமையானது கற்றல் வள நிலையத்திற்கும் கற்பித்தல் செயற்பாட்டிற்கும் இடையிலான சிறந்த தொடர்பு நிலை இன்மையினை வெளிக்காட்டி நிற்கின்றது.

ஆய்வு பெறுபேறுகள்

தகவல் சாதனங்களை இனங்காண்பதில் மாணவர்களின் திறன் என்னும் தலைப்பில் மேற்கொள்ளப்பட்ட இவ்வாய்வில் சேகரிக்கப்பட்ட தரவுகள் , தகவல்களின் அடிப்படையில் ஆய்வு நோக்கத்திற்கு அமைவாக ஆய்வுப் பெறுபேறுகள் முன்வைக்கப்பட்டுள்ளது.

மாணவர்களின் தகவல் இனங்காணல் தன்மையினை அறிந்து கொள்வதற்கு தகவல் இனங்காணல் படிவம் வழங்கப்பட்டு பரீட்சிக்கப்பட்ட போது மாணவர்களிடமிருந்து திருப்திகரமான விளைவுகள் கிடைக்கப்பெறவில்லை. 78.6% மாணவர்கள் தேசப்பட புத்தகத்தையும், 46.1% மாணவர்கள் கின்னஸ் புத்தகத்தையும், 79.8% மாணவர்கள் மத்தியவங்கி ஆண்டறிக்கையும் 92.1% மாணவர்கள் வாழ்வியற்களஞ்சியத்தினையும் ,23.4% மாணவர்கள் அகராதியையும் 78.6% மாணவர்கள் தேசப்பட புத்தகத்தினையும் 52.4% மாணவர்கள் சுவரொட்டியினையும் 39.3% மாணவர்கள் பத்திரிகையையும் இனங்காண முடியாதவர்களாக உள்ளனர்.

மாணவர்கள் தகவல் சாதனங்களை இனங்காண்பதில் பல பிரச்சினைகளை எதிர்கொள்கின்றனர். இற்றைப்படுத்தப்பட்ட தகவல் சாதனங்களின் கிடைப்பனவில் திருப்தியற்ற நிலை (23.8%), கற்றல் வள நிலையத்தின் இடவசதி இன்மை (12.7%), கற்றல் வள நிலையக் கட்டிடம் வேறு தேவைகளுக்கு பயன்படுத்தப்படுதல் (35.3%), நூல்களை இரவல் எடுப்பதில் திருப்தியற்ற நிலை (35.5%), நூலகரின் வழிகாட்டல் இன்மை (48.4%) போன்ற பிரச்சினைகளை மாணவர்கள் எதிர்கொள்ளும் நிலை காணப்படுகின்றது.

மாணவர்களின் தகவல் சாதனங்களை இனங்காணும் திறனை விருத்தி செய்வதில் ஆசிரிய நூலகர்கள் பல பிரச்சினைகளை எதிர்கொள்கின்றனர். மாணவர்களின் தொகைக்கேற்ப புதிய தகவல் சாதனங்கள் குறைவாக காணப்படுதல் ஓரே நேரத்தில் அதிகமான மாணவர்கள் கற்றல் வளநிலையத்திற்கு அனுப்பப்படுதல், கற்றல் வளநிலையக் கட்டிடம் வேறு தேவைகளுக்கு பயன்படுத்தும் சந்தர்பங்களில் மாணவர்களை வகுப்பறையில் வாசிப்பதற்கு வழிகாட்டல், நூலகவியல் தொடர்பான கற்கை நெறிகளை பின்பற்றாமையால் தகவல் சாதனங்களை சிறந்த முறையில் ஒழுங்கமைத்து மாணவர்களின் தேவைகளுக்கு உடன் வழங்குவதில் தாமதம் ஏற்படல் போன்ற பிரச்சினைகளை எதிர்கொள்கின்றனர்.

ஆய்வு முடிவு

ஆய்வினை நோக்கும் போது கற்றல் வளநிலையத்தின் அமைவிடம், கற்றல் வள நிலைய பெளதீக வளங்களின் கிடைப்பனவு, தகவல் சாதனங்களின் கிடைப்பனவு, நூலகவியல் அனுபவம் உள்ள நூலக பொறுப்பாசிரியர் போன்ற காரணிகள் மாணவர்களின் தகவல் சாதனங்களை இனங்காணும் திறன் விருத்தியில் செல்வாக்கு செலுத்துகின்றன. இக்காரணிகளின் கிடைப்பனவு அனுகூலமாக உள்ள பாடசாலைகளில் மாணவர்களின் தகவல் சாதனங்களை இனங்காணும் திறனானது வினைத்திறன் உள்ளதாக காணப்படுகின்றது.

க.பொ.த உயர்தர மாணவர்களின் பாடசாலை நூலக மற்றும் கற்றல் வள நிலையப் பயன்பாட்டினை மேம்படுத்துவதற்கான விதப்புரைகள் (Recommendations)

ஆய்வின் மூலம் பெறப்பட்ட தரவுகள், தகவல்கள் நூற்றுவிதக்கணிப்பு முறை மூலம் பகுப்பாய்வுகள் மேற்கொள்ளப்பட்டு முடிவுகள் பெறப்பட்டன. அந்தவகையில் தகவல் சாதனங்களை இனங்காண்பதில் மாணவர்களின் திறன் குறைவாகவே உள்ளது. இச்சாதனங்களை இனங்காணப்பதற்கு பல பிரச்சினைகள் காணப்படுவதனை கள ஆய்வின் மூலமும், மாணவர்களாலும் ஆசிரிய நூலகர்களாலும் முன்வைக்கப்பட்ட கருத்துக்களிலிருந்து அறிய முடிகின்றது. இப்பிரச்சினைகளை இழிவளவாக்குவதற்கு ஆய்வாளன் என்ற ரீதியில் சில ஆலோசனைகளை முன்வைக்கக் கூடியதாக உள்ளது.

அறிவியியல் யுகம், தகவல் யுகம் என்று விருத்தியடைந்து செல்லும் இந்நாளில் புத்தகங்களே அவற்றைச் சிறைப்பிடித்து எமக்கு உறுதிப்படுத்துகின்றன. உலகில் கல்வி வளர்ச்சிக்கும், புதிய கல்விச் சீர்திருத்தங்களுக்கும் மத்தியில் தேடல், தொகுத்தல், வெளிப்படுத்தல் என்பன மாணவர்களுக்கு இன்றியமையாததாகின்றன. மாணவர்களின் தகவல்திறனையும், வாசிப்புத்திறனையும் பாடசாலை, வீடு, சமுதாயம் என்ற வகையில் பரவலாக்குவதன் மூலமாகவே பூரணத்துவம் மிகுந்ததொரு அறிவுச் சமூகத்தை உருவாக்க முடியும். இதற்கு ஏற்ற வழிவகைகளைச் செய்வது ஒவ்வொருவரினதும் தலையாய கடமையாகும்.

தகவல் சாதனங்கள் தொடர்பான தெளிவினை, தகவல் சாதனங்களிலிருந்து பெற்றுக்கொள்ளக் கூடிய தகவல்கள் தொடர்பாக கற்றல் வள நிலைய பொறுப்பாசிரியர்களுக்கு போதிய விளக்கத்தினை நூலகவியலாளர்களால் வழங்குவதற்கான நடவடிக்கைகளை மேற்கொள்வதுடன், நூலகவியல் தொடர்பான கருத்தரங்குகள், கற்கைநெறிகளை பின்பற்றுவதற்கு வழிப்படுத்தல் வேண்டும்.

மாணவர்களுக்கு தகவல் சாதனங்கள் பற்றியும் அவற்றிலிருந்து பெற்றுக்கொள்ளக்கூடிய தகவல் தொடர்பான விளக்கத்தினை மாணவர்கள் நாளாந்தம் பயன்படுத்துகின்ற இடங்களில் காட்சிப்படுத்தல். இச்செயற்பாட்டின் மூலம் மாணவர்கள் தகவல் சாதனங்கள் தொடர்பான அறிவினைப்பெறுவதற்கு உதவியாக அமையும்.

மாணவர்களுக்கான இற்றைப்படுத்தப்பட்ட தகவல் சாதனங்களின் கிடைப்பனவை அதிகரிப்பதற்கு மாணவர்களதும், ஆசிரியர்களதும் பிறந்தநாளின் போது பிறந்தநாள் பரிசாக தகவல் சாதனங்களைப் பெற்றுக்கொள்வதற்கான செயற்பாடுகளை முன்னெடுப்பதுடன் “புத்தாண்டுப் பரிசு” எனும் செயற்பாட்டினை முன்னெடுப்பதன் மூலமும் தகவல் சாதனங்களின் எண்ணிக்கையை அதிகரிக்கச் செய்யலாம்.

மேலும் பாடசாலை நலன்விரும்பிகள் மற்றும் பாடசாலைக்கு அண்மைய சூழலில் செயற்படும் சமூக நிறுவனங்களுடனும் சிறந்த தொடர்பாடலை மேற்கொள்வதன் மூலமும் பாடசாலை கற்றல் வள நிலையத்திற்கு வேண்டிய நூற்களையும், நூலுருவற்ற சாதனங்களையும் நன்கொடைகளாகப் பெற்றுக்கொள்ளமுடியும்.

பாடசாலை முகாமைத்துவக் குழுவினரும், நூல் கொள்வனவுக் குழுவினரும், ஆசிரிய நூலகர்களும் பிரதான புத்தகசாலைகள், வெளியீட்டு நிறுவனங்கள், இலங்கை தேசிய நூலக ஆவணவாக்கல் சபை போன்றவற்றுடன் தொடர்புகளைப் போணுவதன் மூலம் வெளியீடுகள் பற்றிய தகவல்களை உடனுக்குடன் பெற்றுக் கொள்வதனால் இற்றைப்படுத்தப்பட்ட புதிய நூல்களைக் கொள்வனவு செய்யலாம். மேலும் ஆசிரியநூலகர் பாடசாலைக்கு அண்மையிலுள்ள சனசமூக நூலகங்கள், நகரசபை நூலகங்களுடனும் தொடர்பினைப் பேணுவதன் மூலம் பாடசாலையில் இல்லாத புத்தகங்களை பெற்று பயனடைந்த பின்னர் குறிப்பிட்ட நாட்களின் பின்னர் மீள ஒப்படைக்கும் சேவையினையும் பெற்றுக்கொள்ளலாம்.

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Usage of Artificial Intelligence (AI) Tools for Academic Activities by Undergraduate Students: Quantitative Study at the Sri Lanka Institute of Information Technology (SLIIT) Library

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ABSTRACT

AI is revolutionizing various fields in Sri Lanka, including academic libraries. Understanding how undergraduates use AI tools for academic activities is crucial for enhancing library services. This study intended to explore, usage of AI tools for academic activities among final-year undergraduates. The study population was four hundred and sixty-seven (467) students from the computing faculty at the Sri Lanka Institute of Information Technology (SLIIT) who had library membership. Out of the population, 100 students were selected as the sample using the convenience sampling method. The quantitative research design was employed in the study. The survey method was used to collect data from the selected sample. A structured questionnaire was used as a data collection instrument. Frequency counts and simple percentages were used to analyze the collected data. According to the study, 99% of undergraduate students used AI tools for academic activities. The most frequently used AI tool is ChatGPT (94%), followed by Quill bot and Grammarly. Students use AI tools to check grammatical errors (73%), enhance subject knowledge (68%), and summarize content (67%). Fifty-two percent (52%) of students think using AI diminishes critical thinking, but most disagree that using AI is cheating. Ninety percent (90%) of students claim to know how to use AI ethically. It is recommended that access to proper language editing tools should be offered, as students rely on ChatGPT for grammar correction.

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Emphasizing the importance of using reputed publications when enhancing students' subject knowledge, raising awareness about library e-resources, and creating AI usage policies collaboratively with faculties would also be an appropriate intervention. Finally, providing training on AI tools for research and initiating workshops to educate students on ethical AI use and proper citation is appropriate.

Keywords : AI tool, ChatGPT, Undergraduate students, SLIIT Library

Introduction

Artificial Intelligence (AI) was first introduced in 1956 as a branch of computer science. Copeland (2023) defines AI as the capability of computers or robots to perform tasks that typically require human intelligence. AI is an old concept that has recently gained widespread attention due to generative AI, resulting in numerous applications commonly called AI tools.

These AI tools have become significantly popular, particularly those designed for educational purposes. AI tools can assist, enhance, and streamline teaching and learning processes. While AI tools offer various benefits, ethical issues have also been raised. These tools are readily available on the internet in free and paid versions. Golen (2022) mentions several AI tools suitable for academic purposes, such as Semantic Scholar, Penelope.ai, Elicit for literature reviews, Writefull, Coschedule Headline Analyzer, Quilbot, Wordtune, ChatGPT for writing, Cohere for combined literature review and writing, and DALL-E 2 for creating figures.

It is evident that the field of AI has already invaded the field of higher education. Therefore, it has a natural impact on academic libraries and their services as well. International library-related associations and organizations have already begun to acknowledge the role of AI in the future of librarianship. Recent studies show AI's impacts on librarianship and library services. Therefore, the researcher believes that it is timely and necessary to understand the actual usage of these tools before finding their impact on libraries.

This study addresses the research gap in AI tool usage in Sri Lanka, particularly in higher education. Despite extensive international research, the usage and impact of AI tools among Sri Lankan students remain under-explored. By focusing on 4th-year undergraduate students in the Faculty of Computing at SLIIT, the study explores the patterns, frequency, and

attitudes toward AI tools among students. This research aims to provide valuable, insightful information and the groundwork for future studies and AI policy development in Sri Lanka.

Objectives

1. To identify the frequency of AI tools usage for academic activities.
2. To identify the types of AI tools commonly used for academic activities.
3. To find out the purposes of using AI tools for academic activities.
4. To identify the use of AI tools for research purposes.
5. To find out the students' attitudes about using AI tools for academic activities.

Methodology

The study utilized a quantitative research design and collected data through a survey with closed-ended questions. The population comprised of 467 final-year undergraduate library members from the Faculty of Computing. Using convenience sampling, 100 students were randomly selected for the survey. The primary data was gathered via a self-administered structured questionnaire. Data were collected through a Google form and analyzed using MS Excel, with findings presented in tables and bar charts using frequency counts and percentages.

Results

Frequency of using AI tools for academic activities

Table 01: Frequency of AI tools usage

Frequency	Percentage (%)
Never	1%
Rarely	6%
Sometimes	38%
Often	37%
Always	19%
Total	100%

The results revealed that 99% of respondents had used AI tools in some or other academic activity, and just over half of the respondents often used AI tools.

Types of AI tools commonly used for academic activities

The top three most used AI tools among respondents are ChatGPT (94% response rate), QuillBot (88%), and Grammarly (79%).

89% of respondents use the free version of AI tools, while 11% have purchased the paid version.

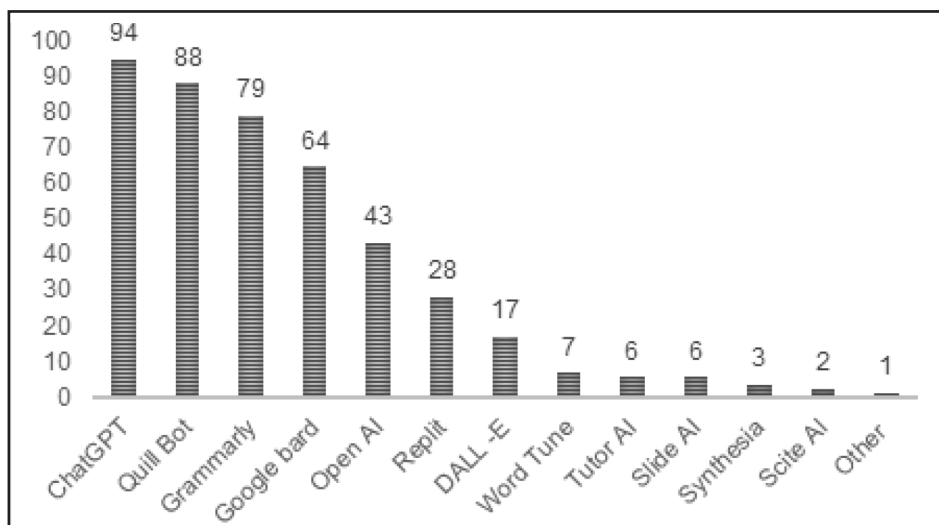


Figure 1 : Types of AI Tools

Purpose of using AI tools for academic activities

The survey found that 73% used AI for grammar checking, 68% for enhancing subject knowledge, 67% for summarizing content, 64% for exam preparation, 63% for assignment writing, 57% for presentations and study notes, and 54% for paraphrasing. Almost half used AI for programming, 42% for references, and nearly 1/3 for receiving feedback on their work.

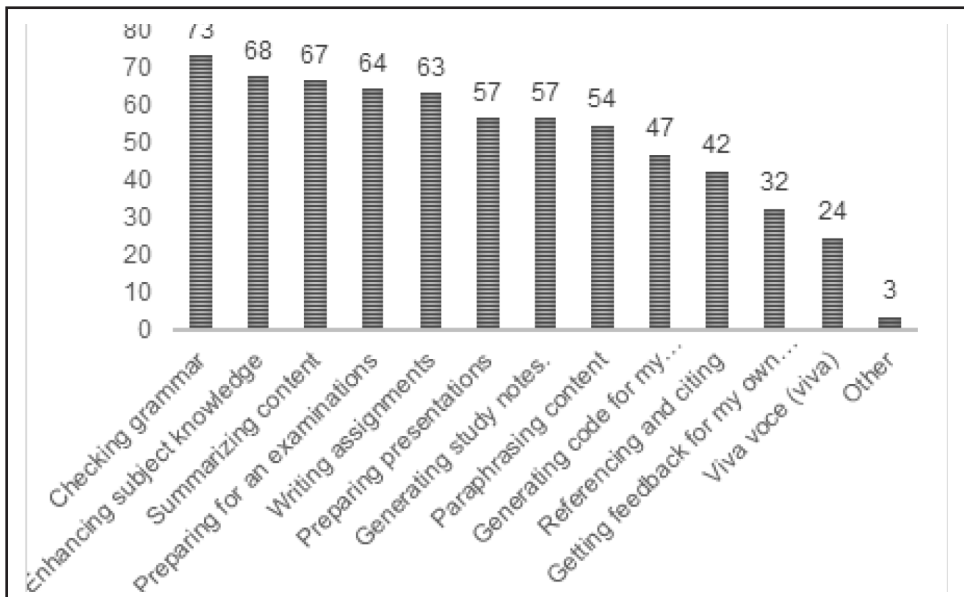


Figure 2 : Purpose of using AI Tools

Use of AI tools for research purposes

Three-fourths (3/4) of respondents used AI for research activities. From it, 51% used AI tools for finding a suitable research topic, 46% used AI for summarizing research papers, 37% used AI tools to write literature reviews, and 23% and 19% used for citation and formulating reference lists, respectively.

The majority of students used Chat GPT as a research support AI tool. More than half of the responses indicated it. Many respondents learned about this tool or its usefulness in research through social media and friends. Very few respondents (10%) had gained formal knowledge about the above-mentioned AI tools by attending formal online forums.

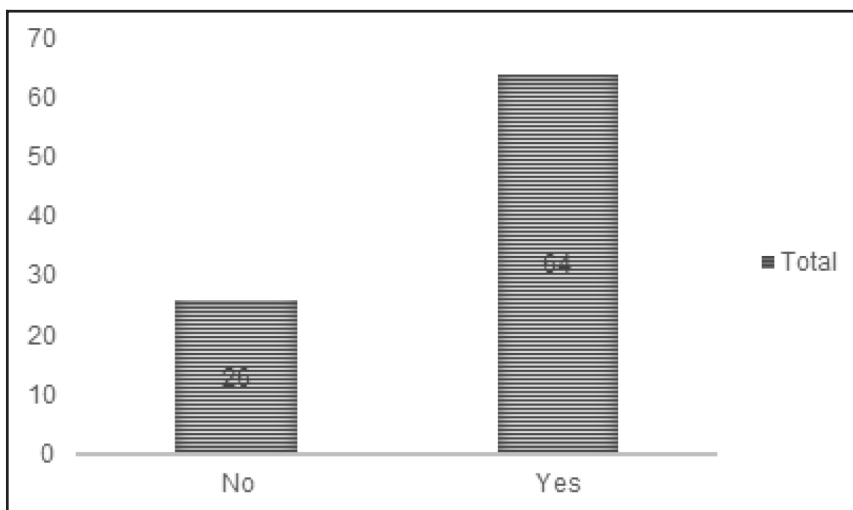


Figure 03: Usage of AI tools for the research project

Student’s attitudes about using AI tools for academic activities

Table 2. Percentage of responses to Likert scale question

Statement	Strongly Agree.	Agree	Neutral	Dis-agree	Strongly Disagree
I believe that using AI tools for my academic activities diminishes my critical thinking	20%	32%	29%	18%	1%
I believe that using AI tools for my academic activities is cheating.	12%	12%	29%	31%	16%
I know when and how to use AI tools ethically for my academic activities	37%	53%	10%	0	0

Majority of students tend to agree with the first statement, disagree with the second statement, and agree with the third statement.

Discussion

This is the first study to examine systematically, AI tool usage among SLIIT students for academic purposes, revealing that 99% of these students use AI for their academic activities. Data analysis indicates that ChatGPT is the most popular AI tool among SLIIT students, with many using the free version. This finding supports Albayati's (2024) prediction that ChatGPT would become widely used, especially among undergraduate students.

The analysis shows that most students use AI tools to check grammatical errors and highlight issues with their English grammar knowledge. Additionally, a significant number of students use AI to enhance subject knowledge, and more than half use AI, particularly generative tools like ChatGPT, to generate study notes. This trend indicates that students prefer using AI tools over traditional course materials to gain knowledge. Moreover, students use AI tools for developing computer codes, which aligns with Haensch et al. (2023) findings on students using AI for programming.

Nearly three-fourths of students use AI tools for research purposes. Almost half of them use AI to find suitable research topics, set objectives, and summarize research papers and literature. Over half of the students specifically use ChatGPT for research, with the use of other tools being significantly lower. This outcome aligns with Megawati et al. (2023), who found that researchers often use ChatGPT to finalize research topics and plan research questions or hypotheses.

When examining the students' attitudes towards AI usage, many students believe that the use of AI in academics may reduce critical thinking skills. When asked if using AI tools constitutes cheating, a significant number of students expressed neutrality or disagreement, aligning with Bego (2023), who reported that most students do not consider using AI for engineering assignments as cheating. Lastly, this study shows that 90% of respondents are aware of how to use AI ethically in academic endeavors.

Recommendations

1. Although many students use ChatGPT to correct grammatical errors, it was not initially designed for this purpose. Therefore, it is recommended that access to proper language editing tools like Quill Bot or Grammarly for students' language editing tasks be provided as a library service.
2. As students use AI tools as reference sources for general academic purposes and literature searches for research purposes, the usage of the SLIIT library's resources would be affected. Therefore, it is suggested that,
 - a. Emphasizing the importance of referring to reputed publications when taking study notes. This can be discussed during the library orientation program.
 - b. formulate AI usage policies in collaboration with faculties.
3. Since a significant number of students use AI for research purposes, the SLIIT library should offer additional resources and support. This may include training programs for using AI tools in literature reviews, research planning, and data analysis.
4. Since students do not consider using AI for academic activities as cheating, the library can initiate awareness programs and workshops to educate the user community and inculcate positive and ethical attitudinal impressions among students about AI usage in academic work.

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Descriptive Bibliographic (DBIB) Framework Based on MARC21: A National Initiative by the National Library of Sri Lanka to Standardize Library Catalogues and Maintain the National Union Catalogue (NUC)

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ABSTRACT

One of the main functions of a national library in a country is to compose standards related to library services to meet international trends and practices in the country. This paper refers to such an initiative led by the National Library of Sri Lanka (NLSL) titled DBIB- Descriptive Bibliographic Framework. DBIB is a quasi-standard based on MARC 21 international standards during computerized catalogue making process in input metadata for Integrated Library Management Systems (ILMS) and limited for monographs, serials, theses and dissertations. The main object of this initiative was to standardize and integrate the bibliographic records and to mitigate disparity during input bibliographic data to sustain standardized National Union Catalogue (NUC). This paper is a scientific methodological approach to describe how the project was commenced. Indeed, an experience sharing, and constructed with the participation in the DBIB project contributed by Library and Information Science (LIS) subject experts in Sri Lanka. The basic information found from the practical issues raised while input metadata found various libraries in Sri Lanka, and the study focused with the experience of two automation projects jointly initiated by the NLSL with ICTA (Information Communication Technology Agency) and UNDP (United Nations Development Program). Along with experience of these projects and by visits and observations metadata differences reported in computerized library catalogues while initiating to fill the above mentioned gap to maintain uniform library catalogues all over the country and to implement standardized, sustained NUC. The secondary sources and tacit knowledge and experience of the LIS experts have been used for completing the task. DBIB will shower a wide range of guidelines

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to any kind libraries while using their ILMs in Sri Lanka. The DBIB may eventually lead to Sri Lanka customizing SLMARC, a MARC21 based comprehensive tag format as some other countries have done. It is a national standard when it comes to cataloging metadata and ensuring uniformity among libraries in Sri Lanka. NLSL has emphasized and recommended to customize and use DBIB for academic, public, school and other libraries in their computerized cataloguing works while using Koha or any other ILMs.

Keywords: Library Cataloguing, Cataloguing frameworks, MARC21, Koha ILM, National Union Catalogue, NUC

Introduction

National library is the intellectual memory of the nation. It is the Bibliographic Control Agency of the nation and is responsible for the National Bibliographic Control in the universal bibliographic network aimed at achieving Universal Availability of Publications (Akidi, 2017). National Library of Sri Lanka (NLSL) is dedicated to build national resources enabling to access published heritages and to provide a gateway to the nation. NLSL strive to standardize the national bibliographic system in Sri Lanka such as publishing Sri Lanka National Bibliography, maintaining National Union Catalogue and providing guidelines to maintain uniformity in bibliographic activities, facilitating to have computerized catalogue for libraries by providing guidance to establish uniform library catalogues. NLSL is monitoring the cataloguing activities throughout the country since its establishment whether it has done manually or computerized manner. After making a paradigm shift of moving to card catalogue to computerized catalogue, NLSL has closely observed and provided appropriate solutions from time to time. Since the 1980s, the decade that saw the automation process taking place in Sri Lanka, NLSL has provided many guidelines to libraries island wide. Due to widespread usage of ILMs by libraries in Sri Lanka, to prevent disparity in library catalogues, especially after Koha was introduced, there was a need for a customized scheme Accordingly, NLSL launched a project in 2017 called DBIB- Descriptive Bibliographic Framework (National Library and Documentation Services Board, 2024).

National Bibliographic Control

The collection of published works of a country is fundamental to the achievement of the national library's mission. Bibliographic control involves the organization and management of information for effective usage. The purpose of bibliographic control is to list information sources in systematic manner to enable users to become aware of what information available and where it can be found (Behrens, 2000). Bibliographic control covers a range of activities which include, the creation of complete bibliographic records for published items, the standardization of bibliographic description, provision of wide access to bibliographic records through compilation and distribution of union lists and subject bibliographies and the physical access through consortia, networks or other corporative endeavors (Akidi, 2008). For national bibliographic control to be effective, there need to be

- A legal deposit regulation
- A regulating, controlling and advisory body
- Supporting committees and investigations
- A wide selection of bibliographic tools covering various facets of the national recorded heritage
- Compliance with national and international standards as well as technological developments (e.g. computerization, use of the internet)
- National support from institutions, consortia, professional associations, interest groups, and qualified, dedicated individuals
- Research programs and initiatives
- Literature reporting on national bibliographic control (Fourie, 2007)

In light of the above facts, NLSL has worked in various dimensions of the above mentioned areas to maintain a fruitful National Bibliographic Control in Sri Lanka over the past couple of decades. NLSL has taken many steps to implement National Bibliographic Control (NBC) leading to Universal Bibliographic Control (UBC) in the country related activities such as compiling various bibliographies, standardization of bibliographic descriptions, providing wide range of bibliographic access to various parties.

Accordingly bibliographic activities have continuously been monitored by the NLSL in the past such as standardization and monitoring national bibliographic activities, establishment and maintenance of union catalogue activities.

National Union Catalogue

Union Catalogue (UC) can be defined as “as a properly maintained combined catalogue of various libraries, which is capable of providing the bibliographical details of the holdings of each library”. A Union catalogue stimulates co-operative cataloguing services such as resource sharing, inter library loans, document delivery services and A union catalogue stimulates cooperative cataloguing services such as resource sharing, interlibrary loans, document delivery services, and library cooperatives.

It seems to be a useful tool to provide for implementation of these services whether the collection is physical or virtual or both. NUC is the national corporative catalogue of a country while Online Computer Library Centre (OCLC) is the world largest union catalogue called “WorldCat” (<https://www.oclc.org/en/worldcat.html>) (Macgregor & Nicolaidis, 2005). Many countries formed UCs relevant to their countries for example “IndCat” Online Union Catalogue of Indian Universities; AMICUS Canadian NUC. Traditional catalogues moved as Machine Readable Catalogue (MARC) with the presence of computer-based library services. Integrated Library Management Systems (ILMS) is another technological innovation practiced by libraries, and with the presence of ILMS union catalogues turning into virtual face called Virtual Union Catalogue (VUC) providing resource sharing facilities via virtual platform. National Library of Singapore displays VUC an initiative led by them through their webpage. (National Library Board, Singapore, 2024)

Accordin to Gunarathna (2005) the first UC was created in 1977 in Sri Lanka, included science and technology books, which was facilitated by the Sri Lanka Scientific and Technical Information Centre (SLSTIC) and was in print format. NUC project was initiated in 1986 by the National Library of Sri Lanka with the participation of six libraries consisting cataloguing data of university libraries, main public libraries, special libraries and technical college libraries and it increased up to 77 libraries later on (Ranaweera, 2008). Information gathering was held with inclusion of manual cataloguing cards at the beginning. In 1994 started to implement computerized catalogue system. Micro CDS/ISIS, Win/ISIS and Alice for windows were

consecutively used to feed data and facilitated to use library catalogues through OPAC. ILMs have facilitated to work with virtual platform, especially when usage of Koha ILMs. Accordingly, NLSL initiated another project to access bibliographic data through OPAC with usage of VuFind software when using Koha. NLSL initiated the Virtual Union Catalogue (VUC) project in 2023 with the contribution of 25 libraries.

Library Automation in Sri Lanka

The first computerized catalogue was established in 1982 in National Science Foundation (NSF) (Jayarathna & Herath, 2024) and was gradually improved with the usage of computers in libraries. Especially libraries started to automate their libraries using various Library Management Software (LMS). After a wide range of usage of several LMSs, libraries faced so many practical problems in working with these types of commercial software. Due to those practical problems faced by libraries, they started to search free and open source software (FOSS). Finally a wide range of conversation among library experts related to ICT decided to establish Koha ILMs in their libraries. The University of Ruhuna was the pioneer to use Koha in Sri Lanka (Nahfees, Hettiarachchi, Rifaudeen, 2005). Koha is a web based ILMs, cataloguing data programmed in MARC 21 accessible via Z 39.50. Koha was initially developed in New Zealand in 2000, with functions and software development facilities thousands of libraries have adapted it. Many libraries including national library, university libraries, special libraries and public libraries in Sri Lanka intended to migrate their data from previous software to Koha. However, there may be a chance to occur disparities when launching a new project national wide by many libraries and to resolve it. A study conducted by (Rathnayaka, Rewatha, 2018). based on university libraries in Sri Lanka proposed that uniform MARC system should be established in Sri Lanka.

National Library's Automation projects with ICTA and UNDP

NLSL initiated "Digital Libraries for Knowledge Enhancement" with the Information and Communication Technology Agency of Sri Lanka (ICTA). This was a three-year project to establish 26 'Digital Libraries' across the country during 2017 to 2019 period (Information Communication Technology Agency, 2021). Another project was launched with United Nations Development Program (UNDP) to automate 24 libraries (National

Library and Documentation Services Board, 2022, August 09). These two projects were library automation projects, implementation and monitoring part was under taken by the NLSL. The Koha ILMS was established with the technical support of the NLSL for libraries and provided equipment, technology and training for librarians on cataloguing and other modules of Koha.

When the stage of monitoring of input meta data, NLSL noticed lots of disparities catalogues of different libraries. Not only due to these projects, but there had been a need to coordinate all cataloguing data and to go for a national initiative to mitigate disparity and keep uniformity among data inputs of hundreds of libraries in Sri Lanka. Considering as sample of two projects to check accuracy of meta data input, NLSL expedited the initiative considering rapid developments of computer based cataloguing process within the country. Consequently NLSL appointed a committee consisted with LIS experts and initiated Descriptive Bibliographic Framework (DBIB) project to customize a standardized data input system to Sri Lanka.

Background of Descriptive Bibliographic (DBIB) Framework project

As discussed earlier, it is a responsibility of national libraries to maintain bibliographic control activities in the country. MARC is an international standard adapted by libraries to maintain standard while inputting bibliographic data in the library catalogue. Many countries have prepared exclusive MARC format according to their needs customizing the original MARC format. KOMARC21, CANMARC, UKMARK are examples from South Korea, Canada, UK, who has customized for their usage respectively. A committee had been appointed by NLSL to accomplish this project assigning experts in Sri Lanka. Main objective of this project was to customize standardized MARC 21 based bibliographic framework exclusively for Sri Lanka. According to the chairperson of the DBIB committee goal and objectives of the projects are as follows. (National Library and Documentation Services Board, 2024).

1. To provide a 'field selection guide' for libraries lacking manpower with adequate knowledge on MARC.

2. To maintain uniformity in bibliographic records in libraries in Sri Lanka.
3. To encourage all automated libraries to use the recommended framework for bibliographic data entry.
4. To facilitate collaboration and data sharing among libraries.

This project was set up to compile a customized MARC 21 tags for any type of documents for the usage of Sri Lankan libraries. Initially the committee has customized tags for Books and Monographs, Serials Publications, and Theses and Dissertations and published it in 2024 as a Booklet, and also e-copy available in the NLSL website. According to objectives of the committee NLSL intend to complete MARC 21 tags for all documents in future. Some countries have composed unique MARC for their requirements. DBIB will be a good foundation to achieve SLMARC for Sri Lanka.

Structure of Descriptive Bibliographic (DBIB) Framework

DBIB is a quasi-standard based on MARC21 international standards recommended by the NLSL to input metadata during computerized cataloging process in Integrated Library Management Systems (ILMSs). DBIB is constructed with MARC tag details for Books and Monographs, Serials Publications and Theses and Dissertations. DBIB based on 8 areas of description proposed by the International Standard Bibliographic Description (General) – ISBD (G) is covered by the framework. (National Library and Documentation Services Board, 2024).

MARC tags are specified within 000-999. Libraries are able to use whole 999 tags for a record, but according to DBIB report most of libraries are using less than 30 tags. (National Library and Documentation Services Board, 2024). Therefore, the framework included only essential tags as per requirements of the Sri Lanka library context. DBIB committee has advised to use more MARC tags by large libraries if they need and expressed that there will be a future update for other formats of documents.

According to DBIB report, the following example describes the need and the usage of MARC tags replacing card catalogue as follows.

020	\$a9786245747078
040	\$beng
082	\$223
	\$a020.72
245	\$aInternational research conference (2nd : 8th Sep., 2023 : Colombo) \$b: proceedings : transformation of libraries in the digital era.
260	\$aColombo : \$bNational Library and Documentation Services Board, \$c2023.
300	\$axxv,92 p. ; \$c25 cm. \$bAd-Bc : Unpriced
650	\$aLibrary science - Congresses \$aInformation science - Congresses

Fig. 1 : A traditional catalogue entry (card)

International Research Conference (2nd : 8th Sep., 2023 : Colombo) Proceedings : transformation of libraries in the digital era. - Colombo : National Library and Documentation Services Board, 2023. xxv,92 p. ; 25 cm.
ISBN 978-624-5747-07-8
1. 020.72 DDC23
1. Library science-Congresses 2. Information science-Congresses

Fig. 2 : A MARC data of the same catalogue entry

The structure of a catalogue card is recorded as shown in the Fig. 1. After replacing data, the MARC format displays in any database as shown in Fig. 2. Traditional catalogue card has been changed to MARC related tags.

DBIB describes tags for Books and Monographs, Serials Publications and Theses and Dissertations in English, Sinhala and Tamil languages in a table. Along with that table, examples of tags for various types of materials are shown in the publication. (Fig. 3)

MARC 21 Descriptive Cataloging Framework recommended by the National Library of Sri Lanka for Books and Monographs (DBIB-BM) - Version 2.0 (August 2023)

Field ක්ෂේ ත්‍රය අංකය	Subfield අක්ෂර සංකීර්ණ අ.ප. අංකය	Designation - MARC21 නාමය - MARC21 තායම - MARC21	Designation - Sinhala නාමය - සිංහල තායම - චිත්තකත	Designation - Tamil නාමය - දෙමළ තායම - தமிழ்	Repeatability පුනරාවර්ත විධි මාත්‍රය
000 ⁶	-	Leader	නියමුරු	முன்னிடு	NR
003 ⁷	-	Control Number Identifier	සලකා බැලීමේ අංක හඳුනාගන්නා	கட்டுப்பாட்டு எண் அறிமுகம்	NR
008 ⁸	-	Fixed Length Data Elements-General Information	නිර්දේශ දිග දත්ත-සාමාන්‍ය තොරතුරු	தீர்மானித்த தரவு - பொதுத் தகவல்	NR
020		International Standard Book Number (ISBN)	අන්තර්ජාතික ප්‍රමිත ග්‍රන්ථ අංකය (ISBN)	අන්තර්ජාතික ග්‍රන්ථ අංකය (ISBN)	R
	a	International Standard Book Number (ISBN)	අන්තර්ජාතික ප්‍රමිත ග්‍රන්ථ අංකය (ISBN)	අන්තර්ජාතික ග්‍රන්ථ අංකය (ISBN)	NR
022		International Standard Serial Number (ISSN)	අන්තර්ජාතික ප්‍රමිත මාසික අංකය (ISSN)	අන්තර්ජාතික මාසික අංකය (ISSN)	R

Fig.3. : A screen shot of DBIB for books and monographs

Each section has been given examples section with various book content like single author, two authors. All types of documents have been provided. (Fig. 4)

EXAMPLE ENTRIES FOR BOOKS AND MONOGRAPHS

Examples of Sinhala medium library materials

Example 1 : Book with a single author

020 Sa9789553047434
 040 SaNL\$bsin
 041 Sasin\$bsin
 082 Sa891.48\$Bඅලව්\$222
 100 Saඅලව්නිකයෝ, ජේමදාස ඉ
 245 Saසිංහල සාහිත්‍ය ග්‍රන්ථ වංශය : \$bසාහිත්‍යමය ප්‍රවේශයක් / \$c ජේමදාස ඉ
 අලව්නිකයෝ
 250 Saසංස්.2
 260 Saකොළඹ : \$bලොවිගේ, \$c2014.
 300 Saපි.195 : චිත්‍ර; \$cපෙ.ම. 23.
 490 Saසිංහල සාහිත්‍ය මාලා : \$v3
 650 \$සිංහල සාහිත්‍යය
 650 \$සිංහල සාහිත්‍යය-ඉතිහාසය

Example 2 : Book with three authors

020 Sa9552051932

Fig.4. : A screen shot of DBIB example books and monographs

Conclusion

Computerized catalogue has become an essential part for information provision for readers, in the physical library or via online. Collective work always required standardization especially during national initiatives. DBIB is providing uniformity when inputting meta data in catalogue cards in Sri Lanka. When considering national projects like union catalogue these types of national uniformity is very essential. Hence, DBIB is an essential tool for attain uniformity during computerized cataloguing activities in Sri Lanka. NLSL recommend to experience this uniformity in all types of libraries in Sri Lanka. Future expansion of DBIB will definitely be a useful tool for libraries when creating computerized catalogue cards.

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Artificial Intelligence Integration in Distance Learning: Readiness, Challenges, and Opportunities: Qualitative Study in Sabaragamuwa Province, Sri Lanka

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ABSTRACT

This study explores the readiness of instructors at the Information Technology and Distance Learning Hubs (ITDLHs) in the Sabaragamuwa province to integrate Artificial Intelligence into distance education. As distance learning continues to expand globally, understanding instructor readiness for AI-enabled pedagogy is crucial for effectively harnessing the transformative potential of this technology. Ten instructors were interviewed across ten Information Technology and Distance Learning Hubs (ITDLH) using purposive sampling to gain insights into their perceptions, knowledge, and preparedness for AI integration. The findings identified four key themes: Limited Knowledge and Confidence, Enthusiasm for Professional Development, Requirement for Institutional Support and Current AI Utilisation. There is a discrepancy between instructors' understanding of basic AI tools and their confidence in fully integrating AI for educational purposes. While the instructors expressed a willingness to embrace AI, they highlighted the need for clear guidance and technical support from higher education authorities to facilitate successful implementation. The study also identified best practices for utilising AI in education settings, such as implementing personalised learning experiences, developing content for learning management systems, and preparing interactive instructional materials. The results suggest that ITDLH instructors are at an early stage of AI readiness. They recognise the potential of AI to enhance the distance learning experience, but a knowledge gap and lack of institutional support hinder full integration. This highlights the urgent need for targeted interventions to bridge the knowledge gap, enhance AI skills, and provide crucial technical support to instructors.

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The study's findings offer valuable insights for policymakers and educators looking to harness the transformative potential of AI in distance learning programmes and improve the educational experience for students in Sabaragamuwa Province and beyond.

Keywords : Artificial Intelligence, Distance Learning, Instructors, Educational Technology, Pedagogy

Introduction

Distance learning has become a crucial pillar of education, particularly in geographically remote areas. The Information Technology and Distance Learning Hubs (ITDLHs) in Sabaragamuwa Province, Sri Lanka, are vital in providing educational opportunities throughout the province. However, traditional distance learning methods face limitations in personalisation, engagement, and adapting to individual learning styles (Liyanagunawardena et al., 2014). AI has the potential to revolutionise distance learning by offering adaptive learning environments, personalised feedback, and engaging educational experiences. This study investigates the readiness of ITDLH instructors in Sabaragamuwa to integrate AI into their teaching practices.

Recent studies have highlighted the transformative potential of AI in education, such as improved learning outcomes, increased student engagement, and enhanced teaching efficiency (Al-Zyoud, 2020; Chen et al., 2020; Yim & Su, 2024; Ng et al., 2023). AI-powered tools can enable personalised learning, automated grading, and intelligent tutoring systems to enhance the distance learning experience. However, the successful integration of AI into education is contingent on the readiness and preparedness of instructors (Al-Zyoud, 2020; Gunawan et al., 2021). Instructors play a crucial role in successfully integrating AI into education. They must possess the necessary knowledge, skills, and confidence to utilise AI-enabled technologies in their teaching practices effectively. Instructors have voiced concerns about the challenges posed by AI, including how to effectively incorporate it into their teaching, guide students in its proper use, and learn from how students are employing AI. To ensure successful AI integration, universities must provide adequate training and support for teachers, staff, and students (Chen et al., 2020).

Existing research suggests that instructors have adopted AI, from computer-based technologies to web-based intelligent education systems and humanoid robots. These AI-powered tools have enabled instructors to perform administrative tasks more efficiently, such as grading assignments and providing personalised feedback.

Objectives

The objectives of this study were formulated to comprehensively understand the integration of AI into distance education by the Information Technology and Distance Learning Hubs (ITDLH) instructors. These objectives are:

1. To assess the readiness of the Information Technology and Distance Learning Hub (ITDLH) instructors to integrate AI into their teaching practices.
2. To evaluate the instructors' level of preparedness and confidence in using AI for educational purposes.
3. To explore instructors' challenges in integrating AI and recommend strategies to address them.

Methodology

This study adopted a qualitative research approach, specifically conducting semi-structured interviews. A purposive sampling method was used to select ten instructors from the Information Technology and Distance Learning Hubs (ITDLHs) across Sabaragamuwa Province. The interviews explored the instructors' perceptions of AI, their existing knowledge of AI tools, their confidence in integrating AI into teaching, and any anticipated challenges. A thematic analysis was then conducted to identify recurring themes and patterns within the interview data.

Results

A thematic analysis of the interview data revealed several critical themes regarding readiness of ITDLH instructors to integrate AI integration into their teaching-learning.

Participant	Codes	Category	Theme
Instructors 3,5	“basic understanding of AI tools,” “lacked confidence,” “limited knowledge.”	AI Knowledge and Confidence	Limited Knowledge and Confidence
Instructors 1,2,7	“eager to learn,” “openness towards adopting AI.”	AI Adoption and Integration	Enthusiasm for Professional Development
Instructors 4,5,8,9,10	“need for guidance,” “training programs,” “technical support.”	Institutional Support for AI	Requirement for Institutional Support
Instructors 1,2,4,6,7,10	“AI-generated images, videos, and text,” “content creation”	Current AI Applications	Current AI Utilisation
Instructors 1,2,7,9,10	“limited scope in personalised learning,” “interactive teaching.”	Current AI Applications	Current AI Utilisation

Table 1: Codes, Categories and Theme Development

Theme	Description
Limited Knowledge and Confidence	Instructors showed a basic understanding of AI tools but needed more confidence to integrate them into their practices fully.
Enthusiasm for Professional Development	Despite limited knowledge, instructors were eager to learn about AI's potential benefits for distance learning.
Requirement for Institutional Support	Need for guidance and support from higher education authorities for effective AI integration.
Current AI Utilisation	Basic AI tools are used mainly for content creation, with limited scope in personalised learning or interactive teaching.

Table 2: Key Themes Identified in Instructors' Readiness for AI Integration

Limited Knowledge and Confidence: While the instructors demonstrated a basic understanding of AI tools, such as chatbots and adaptive learning platforms, they needed more confidence in fully integrating these technologies into their teaching practices. However, the instructors demonstrated a basic understanding of specific AI tools, such as those used to generate images and videos to aid content creation; their knowledge of the broader applications of AI in the educational domain needed to be improved. Moreover, it was noted that none of the instructors were utilising subscription-based, high-end AI tools; instead, almost all the tools used were free versions with significant limitations. This lack of comprehensive familiarity with the broader potential of AI resulted in a sense of hesitation and uncertainty regarding the full integration of this technology into their teaching approaches (Chan, 2023; Ng et al., 2023).

Enthusiasm for Professional Development: The interview data revealed that despite the instructors' limited knowledge of AI, they were eager to learn more about its potential benefits for distance learning. Across the discussions, the instructors demonstrated enthusiasm and openness towards adopting AI in their future teaching practices, highlighting their commitment to continuous professional development.

Requirement for Institutional Support: Another recurring theme from the interviews was the instructors' need for clear guidance and technical support from higher educational authorities. The instructors strongly desired training

programs, workshops, and readily accessible technical support systems to facilitate the effective integration of AI into their teaching practices.

Current AI Utilisation: Several instructors reported incorporating basic AI tools, such as those for image and video generation, into their lessons. They have used AI-generated images in their PowerPoint lessons, AI-generated videos as teaching and learning resources, and AI to generate texts and translations for their lesson plans and content. However, these applications needed to be expanded in scope, focusing primarily on content creation rather than leveraging AI's potential for personalised learning or interactive instructional elements. ITDLH instructors currently utilise basic AI tools only for content creation; their applications remain limited in scope.

Discussion

The research findings indicate that the Information Technology and Distance Learning Hubs (ITDLH) instructors possess a basic understanding of specific AI tools but need more comprehensive knowledge of the broader applications of AI in education (Guan et al., 2020). This limited knowledge base requires more confidence in fully integrating AI into their teaching practices. The study highlights the pivotal role of targeted support initiatives, such as training programs, workshops, and accessible technical support systems facilitated by higher education authorities. These measures can empower instructors to overcome their knowledge gaps and confidently leverage the potential of AI (Chan & Tsi, 2023; Owoc et al., 2021; Richter – Zawacki et al., 2019).

While ITDLH instructors currently utilise basic AI tools only for content creation, their applications still need to be expanded in scope. This suggests a need for further guidance on harnessing AI for more impactful educational purposes (Cassidy et al., 2023; Chan & Tsi, 2023). However, the discussions revealed promising best practices, including implementing personalised learning plans, AI-powered feedback tools, and AI-powered simulations and gamification. Encouraging the exploration and adoption of these best practices, alongside promoting knowledge sharing among instructors, can significantly enhance the learning experience for ITDLH students (Ahmad et al., 2023; Maghsudi et al., 2021; Wang et al., 2023).

Conclusion

The study's findings underscore the pressing need for a coordinated institutional effort to effectively equip the Information Technology and Distance Learning Hub (ITDLH) instructors with the necessary knowledge, skills, and confidence to integrate AI into their teaching practices. Tailored training programmes, workshops, and readily available technical support can empower instructors to move beyond their limited understanding of AI and explore its vast potential for enhancing distance learning. Further research is needed to investigate specific AI-powered tools and strategies to optimise the teaching-learning process in ITDLH settings, focusing on improving student engagement, personalised learning, and overall learning outcomes.

The findings suggest that the Information Technology and Distance Learning Hub (ITDLH) instructors are in their early stage of readiness for AI integration. While they exhibit knowledge gaps in this domain, their eagerness to learn provides a positive basis for successful AI adoption. Implementing targeted support initiatives and focusing on best practices, such as personalised learning, can empower instructors to leverage AI's capabilities and enhance the quality of distance education for students in Sabaragamuwa Province. It is essential to acknowledge related research, such as Lampou's work, highlighting the need to bridge knowledge gaps and provide technical support for instructors. Additionally, future scholarly investigations should explore AI's ethical and societal implications in education, as emphasized by Iqbal, to ensure a responsible implementation that prioritizes privacy and minimises bias.

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Educational Decrease among the Tea Estate Community of Delmar Estate, Sri Lanka: Investigating Influential Factors and Advocating for Solutions

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ABSTRACT

This study investigates all issues of educational regression in Delmar Estate, Sri Lanka, particularly within the Delmar Middle Division. The research aims to analyze the influential socioeconomic factors, assess the multifaceted impacts, and explore potential solutions to address this pressing challenge. With a significant portion of students dropping out before attempting national examinations (GCE O/L and A/L) and dismal success rates, there is an urgent need to understand and mitigate the underlying causes hindering educational progress in the community. The objectives were to identify the socioeconomic factors contributing to educational regression, analyze the impact on student outcomes like exam participation and success rates, and explore interventions to tackle this issue. The methodology employed a comprehensive approach, combining quantitative and qualitative methods through a cross-sectional design. Primary data was collected via interviews, focus group discussions, and secondary data analysis, engaging community members and stakeholders. A key finding reveals the absence of secondary education opportunities at Delmar Tamil Vidyalaya as the root cause leading to high dropout rates, poor academic performance, and financial constraints due to costly transportation for students attending schools outside the estate. Inadequate infrastructure and low household incomes further impeded educational access. The study recommends upgrading Delmar Tamil Vidyalaya to a secondary school in collaboration with the Valluvar Forum, a team of Delmar Estate university graduate students, to provide localized education opportunities, mitigate dropouts, and enhance academic achievement. Community engagement and parental involvement are emphasized as crucial for successful interventions. The conclusion highlights the need for collaborative efforts and targeted interventions to overcome educational regression in Delmar Estate. By addressing root

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causes, empowering youth through equitable access to quality education, and fostering sustainable development, the community can pave the way for a brighter future and extending similar methods to other estates could shed light on common challenges and potential solutions.

Keywords : Educational regression, Socioeconomic factors, Academic achievement, Community interventions, Equitable access

Introduction

Delmar Estate, situated in Sri Lanka's Central Province, embodies the cultural and economic diversity of the region. With a population of around 4016 individuals residing in 814 families, the estate's economy predominantly relies on tea cultivation. Despite this economic significance, many households face financial constraints and low incomes.

The educational challenges confronting Delmar Estate are starkly revealed in the outcomes of national-level examinations, particularly the Ordinary Level (O/L) and Advanced Level (A/L) exams. A notable portion of students opt out before attempting the O/L examination, with only about 30% of the remaining students qualifying. This interprets an average of 11 out of 20 students attempting the examination, of which only 6 qualify. Similarly, the participation and success rates in the Advanced Level (A/L) examination are dismal, with only 17% managing to qualify out of the 27% of students attempting the exam. Consequently, the number of students selected for university or higher studies remains minimal, with approximately one student selected per year, and some years no students qualifying for higher education.

Furthermore, the high school dropout rate exacerbates these challenges, with an average of 42% of students dropping out before attempting the O/L exams and 73% before reaching the A/L level. Therefore, there is an urgent need to investigate the underlying reasons for this educational regression and to devise effective solutions.

The study aims to analyze the influential factors, impacts, and potential solutions associated with the educational regression in Delmar Estate. By delving into the root causes of this phenomenon and advocating for targeted interventions, the goal is to pave the way for a brighter future for the community, ensuring equitable access to quality education and fostering the realization of every individual's full potential.

Objectives

This study aims to evaluate the factors contributing to educational regression on Delmar Estate, assess its multifaceted impact, and provide suggestions for addressing this issue. Specifically, it seeks to identify,

1. Identify the socioeconomic factors contributing to educational regression in Delmar Estate.
2. Analyze the impact of educational regression on student outcomes, including examination participation and success rates.
3. Explore potential solutions and interventions to address educational regression in Delmar Estate.

Research Methodology

The research methodology for investigating educational regression in Delmar Estate adopted a comprehensive approach, combining quantitative and qualitative research methods. It utilized a cross-sectional design and engaged with community members and stakeholders. Sampling encompassed the entire community using a combination of probability and non-probability sampling techniques. Sampling allowed for the targeted selection of specific groups such as consistent library users, community members, community leaders, religious leaders, educators, various professionals, members of community-based organizations (CBOs) in the estate, and library volunteers. Primary data was collected through 20 interviews and 10 focus group discussions, while secondary data from the population was also analyzed. Thematic analysis was employed for qualitative data, while descriptive statistics were applied to quantitative data. This methodology aimed to provide a thorough understanding of educational regression and guide the development of effective interventions.

Findings

The research conducted in Delmar Estate, Sri Lanka, highlights significant educational regression issues, particularly within Delmar Middle Division. Driven by various socio-economic factors and systemic obstacles, these challenges are compounded by the absence of secondary education opportunities at Delmar Tamil Vidyalayam. This deficiency exacerbates high dropout rates and poor academic performance, accompanied by financial constraints due to steep transportation costs for students attending schools outside the estate. Inadequate infrastructure and low household incomes further restrict access to quality education within Delmar Estate.

Table 01 - Delmar Middle Division Students Dropouts Details

Birth Year	G5 year	Total Students	Before O/L		Before A/L	
			Nos	%	Nos	%
1996	2006	19	8	42%	12	63%
1997	2007	17	8	47%	12	71%
1998	2008	19	9	47%	13	68%
1999	2009	29	10	34%	22	76%
2000	2010	20	6	30%	14	70%
2001	2011	18	9	50%	13	72%
2002	2012	20	6	30%	16	80%
2003	2013	20	12	60%	17	85%
2004	2014	21	11	52%	16	76%
2005	2015	20	9	45%		
2006	2016	19	5	26%		
Average		20.18	8.45	42%	15.00	73%

The dropout rates among students in Delmar Middle Division are alarmingly high. Analysis of the data shows that the average dropout rate before the Ordinary Level (O/L) exams is 42%, with figures peaking at 60% in 2013. Even more concerning are the dropout rates before the Advanced Level (A/L) exams, which average 73%, and reached as high as 85% in 2013. These statistics reflect severe challenges in maintaining student enrollment through key educational milestones, largely due to socio-economic factors and the lack of secondary education facilities. Table -02 Delmar Middle Division Students O/L and A/L Result

Year OL	Total Students	OL attempt	OL Qualified	OL Qualified %	Year AL	AL attempt	AL Qualified	AL Qualified %
2012	19	11	9	47%	2015	7	7	37%
2013	17	9	5	29%	2016	5	4	24%
2014	19	10	7	37%	2017	6	5	26%
2015	29	19	7	24%	2018	7	1	3%
2016	20	14	7	35%	2019	6	5	25%
2017	18	9	5	28%	2020	5	3	17%
2018	20	14	4	20%	2021	4	0	0%
2019	20	8	3	15%	2022	3	1	5%
2020	21	10	6	29%	2023	5		
2021	20	11	4	20%				
2022	19	14	11	58%				
Average	20.18	11.73	6.18	31%	Average	5.33	3.25	17%

The performance of students in national examinations further underscores the educational difficulties faced by the community. The average qualification rate for the O/L exams stands at 31%, with a notable decline to just 15% in 2019. For the Advanced Level (A/L) exams, the average qualification rate is a mere 17%, dropping to 0% in 2021. These low qualification rates demonstrate a significant impediment to educational progression and highlight the need for enhanced support and resources.

Table – 03 School Transport Expense for Family

Day Salary =1000/= Without Deductions, One Day Transport Expense per Student =140

No of person Working in a Family	Family Income per day	Transport Cost in Rs		
		1 student	2 Students	3 students
1	1000	140	280	420
2	2000	140	280	420
No of person Working in Family	Family Income per day	Transport Cost %		
		1 student	2 Students	3 students
1	1000	14%	28%	42%
2	2000	7%	14%	21%

Financial constraints, particularly the cost of transportation, exacerbate the educational challenges faced by families. For a household with a daily income of Rs.1,000 the transportation cost for one student is 14% of their income, which rises to 28% for two students and 42% for three students. Even families earning Rs.2,000 daily face substantial transportation costs, with percentages of 7% for one student, 14% for two, and 21% for three. These high costs contribute to the financial burden on families and is a significant factor in the high dropout rates. Engagement and parental involvement in education are crucial for supporting effective interventions.

Through the Valluvar Forum's initiative and collaborative efforts, the community of Delmar Estate is working to overcome significant educational regression and create a brighter future for its residents. The Forum's proposed solutions aim to address the root causes of the educational challenges faced by the community. A key intervention includes upgrading Delmar Tamil Vidyalayam to a secondary-level institution. This upgrade is designed to tackle systemic barriers, reduce dropout rates, and improve academic performance. In addition to enhancing educational infrastructure, the initiative emphasizes the importance of fostering community engagement and increasing parental involvement. By implementing these targeted interventions, Delmar Estate aspires to empower its youth and promote sustainable educational development, ultimately leading to more equitable opportunities and better outcomes for students.

Discussion

The research delves into educational regression in Delmar Estate, Sri Lanka, revealing socioeconomic challenges and systemic barriers. High dropout rates and poor academic performance are compounded by the absence of secondary education opportunities. This deficiency leads to financial constraints due to costly transportation for students attending schools outside the estate. Inadequate infrastructure and low household incomes further restrict educational access. The study advocates for upgrading Delmar Tamil Vidyalayam to a secondary level school, in collaboration with the Valluvar Forum. This initiative aims to provide localized education, reduce dropout rates, and enhance academic performance. Additionally, community engagement and parental involvement are crucial for effective interventions. Extending similar methods to other estates could shed light on common challenges and potential solutions, fostering equitable education access across Sri Lanka's tea estate communities. Through collaborative efforts, these interventions have the potential to empower youth and promote sustainable education development.

Conclusion

The study on educational regression in Delmar Estate, Sri Lanka, highlights the significant challenges faced by the community, particularly within Delmar Middle Division. The absence of secondary education opportunities at Delmar Tamil Vidyalayam stands out as a root cause, exacerbating high dropout rates, poor academic performance, and financial constraints due to steep transportation costs. Through a collaborative effort with the Valluvar Forum, the study identifies potential solutions, including upgrading the school to a secondary-level institution. This initiative aims to address systemic barriers, reduce dropout rates, and enhance academic performance while fostering community engagement and parental involvement. Additionally, the Valluvar Community Library plays a critical role in promoting a culture of learning and providing educational resources to support students' academic journeys. By leveraging community resources like the Valluvar Community Library, Delmar Estate aims to create a brighter future for its residents, empower its youth, and promote sustainable educational development. Through collaborative efforts and targeted interventions, the study paves the way for equitable education access and progress within the community and beyond.

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Impact of ERP Implementation on Performance of SMEs in Colombo District

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ABSTRACT

The integration of Enterprise Resource Planning (ERP) systems is crucial for the seamless operation of various departmental functions, including marketing, inventory management, finance, and human resources, within an organization. This study aims to investigate the influence of ERP implementation on the performance of Small and Medium-sized Enterprises (SMEs) within the Colombo District of Sri Lanka. Notwithstanding the apparent advantages, reluctance in adopting ERP systems prevails, primarily due to economic apprehensions and the peril of insolvency. In an endeavor to evaluate the ramifications of ERP on SME operational success, a comprehensive survey was administered to 374 SMEs within Colombo, yielding 370 credible responses from individuals in CEO/Managing Director positions and other managerial roles. The analysis of data was executed employing both regression and correlation methodologies through the Statistical Package for the Social Sciences (SPSS), with a concentrated examination of the nexus between ERP deployment and SME operational performance. The study probed into four principal variables: satisfaction levels of ERP users, the extent of support from upper management, the impact of training and educational programs, and the availability of technical support. The empirical evidence suggests that satisfaction levels of ERP users inversely correlate with SME performance, whereas robust support from upper management and technical teams exerts a positive influence. Conversely, the role of training and educational initiatives did not demonstrate a marked significance.

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The findings of this research provide critical insights for SME proprietors and decision-makers, underscoring the necessity to amplify the advantages of ERP systems and propel the momentum of digital transformation within the SME sector.

Keywords: Enterprise Resource Planning, Small and Medium-sized Enterprises, Operational Performance, User Satisfaction, Management Support, Training, Technical Assistance

Introduction

The fragmentation of Information Systems (IS) within organizations has led to inefficiencies, prompting the integration of Enterprise Resource Planning (ERP) systems as a solution (Raymond & Uwizeyemungu, 2007). Offering a unified platform for business operations, ERP systems consolidate various back-office functions, fostering enhanced efficiency and interdepartmental coordination (Anuradha Jayakody et al., 2019).

Small and medium-sized businesses (SMEs) play a critical role in economic growth, with different structures and management compared to larger industries. In implementation of ERP systems, the size of a company matters (Haddara & Zach, 2011).

Extensive research explores the link between ERP systems and business performance, with many organizations investing in ERP to enhance decision-making capabilities (AlMuhayfith & Shaiti, 2020a). Factors such as integration and information quality impact organizational efficiency, with SMEs facing lower IT budgets and higher risks (Amin & Aloqaily, 2021).

The adoption of ERP systems has been shown to enhance user satisfaction, training quality, and technical support within SMEs. However, the inclination of top management can inversely affect the willingness to utilize these systems (Shahzad et al., 2016; Anuradha Jayakody et al., 2019). Despite several studies on ERP implementation's impact on SME performance in various regions and industries, research on its effects in the Colombo District of Sri Lanka remains limited (Pratheesh & Pratheesh, 2020).

Objectives

General objective:

To examine the impact of ERP implementation on performance of SMEs in Colombo district.

Specific objectives:

- i. To examine the impact of user satisfaction (US) of ERP implementation on the performance of SMEs in Colombo district.
- ii. To examine the impact of top management support (TMS) of ERP implementation on the performance of SMEs in Colombo district.
- iii. To examine the impact of training and education (T and E) of ERP implementation on the performance of SME in Colombo district.
- iv. To examine the impact of technical support (TS) of ERP implementation on the performance of SMEs in Colombo district.

Methodology

The study examines the impact of ERP implementation on SME performance, focusing on four independent variables: User Satisfaction, Top Management Support, Training and Education, and Technical Support. The dependent variable is the Performance of SMEs. Drawing from problem identification, the researcher chose a deductive approach and referred to past studies, formulated the hypothesis, and tested it with quantitative data. Registered SME's owners and managers in Colombo district were used as the target population of the study. The adoption of simple random sampling is predicated upon its recognized facilitation of both ease of access and enhanced accuracy in sampling procedures. Primary data was collected through online survey of the questionnaire from 374 SMEs in the Colombo district. The sample encompasses every demographic constituent. Quantitative data, upon collection, undergoes initial codification into numerical formats, facilitating subsequent analysis. Statistical methodologies including descriptive analysis, correlation, and regression analysis are employed to analyse the data, leveraging the IBM SPSS Statistics 21 software tool.

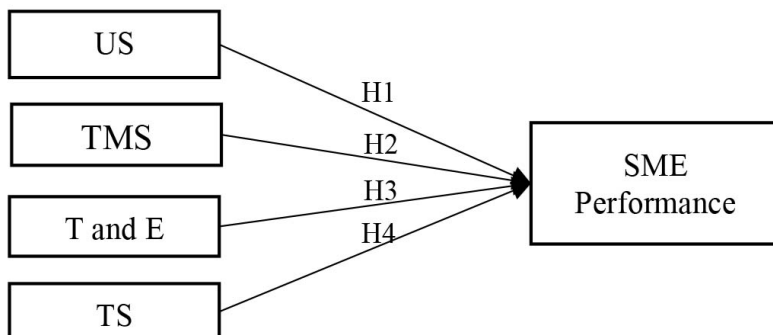


Figure 1: Conceptual Framework

Source: Developed by researcher

Results

Table 1: Reliability Analysis

Variables	Cronbach's Alpha	No of Questions
User Satisfaction	0.854	07
Top Management Support	0.767	04
Training and Education	0.797	05
Technical Support	0.707	04
SME Performance	0.805	05

Source: Survey Data

The Cronbach's alpha coefficients for all variables ranged from 0.707 to 0.854, meeting the established threshold for reliability. Typically, coefficients falling between 0.7 and 1.0 signify high reliability of variables. Notably, the dependent variable demonstrated a reliability coefficient of 0.805. These findings suggest internal consistency among the questions used to measure both independent and dependent variables, as depicted in the table.

Table 2: Pearson Correlation Analysis

		User satisfa- ction	Top Manag- ement Support	Training and Edu- cation	Techni- cal Support	SME Perfor- mance
SME Per- formance	Pearson Cor- relation	-0.243**	0.151**	0.139**	0.136**	1
	Sig. (2-tailed)	0.000	0.000	0.004	0.007	0.009

Source: Survey Data

According to the above table Pearson correlation values for the user satisfaction shows -0.243. this indicates negative impact between user satisfaction and SME performance. Besides, all other indicators show positive impact on SME performance and all four indicator's impact are statistically significant as sig. value is less than the 0.05 ($P < 0.05$).

Table 3: Regression Analysis

R Square = 0.005		F = 2.990		Sig. = 0.85			
Model		Unstandard- ized Coeffi- cients		Standard- ized Coeffi- cients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	4.652	0.373		12.456	0.000	
	User Satisfaction	-0.333	0.058	-0.288	-5.716	0.000	
	Top Management Support	0.197	0.064	0.197	3.087	0.002	
	Training and Education	-0.011	0.065	-0.011	-0.172	0.864	
	Technical Support	0.136	0.049	0.146	2.804	0.005	

Source: Survey Data

According to the table R Square value is 0.005, which means that 0.5% of SMEs performance is explained by selected dimensions and the rest of 0.995 determines the ERP implementation on performance of SME by other crucial factors. According to the table, a significant level of the regression line is greater than 0.05 which means that the regression line is not strong enough to explain the impact of independent variables on the dependent variable. Referring to the above table, the regression coefficient of dimensions' acceptable sig. value is less than 0.05 ($P < 0.05$) accordingly,

User Satisfaction, Top Management Support, and Technical Support can be acceptable though the hypothesis related to the Training and education was rejected as its sig. value shows more than 0.05 level. The following table indicates the summary of the hypotheses.

Table 4: Hypothesis Summary

Hypothesis	Correlation Relationship		Status	Coefficient Relationship		Status	Finding
	R	P		B	P		
H1	-.243	.000	Accepted	-.333	.000	Accepted	Accepted
H2	.151	.004	Accepted	.197	.002	Accepted	Accepted
H3	.139	.007	Accepted	-.011	.864	Rejected	Rejected
H4	.136	.009	Accepted	.136	.005	Accepted	Accepted

Source: Survey Data

Conclusion

The study aimed to investigate the relationship between ERP implementation and SME performance, utilizing a sample of 374 SME owners and managers in the Colombo area. A structured survey was employed for data collection, which was subsequently analyzed using the SPSS program. ERP implementation was identified as the independent variable, while SME performance served as the dependent variable.

Reliability analysis was conducted to assess the internal consistency of the research measurements. Results indicated high internal consistency, with alpha values exceeding 0.7 for user satisfaction, top management support, training and education, technical support, and SME performance. Among the 370 SMEs that participated in the survey, the majority were manufacturing firms (107), and a significant proportion had been operating for 10-12 years (101). However, only 135 firms had established an ERP system, with less than one year of experience.

Correlation analysis revealed positive relationships between top management support, training and education, and technical support. However, there was

a negative relationship between user satisfaction and ERP implementation.

Regression analysis indicated that ERP implementation and training and education had no significant impact on SME performance. Conversely, top management support and technical support positively influenced SME performance, while user satisfaction negatively affected it. Therefore, one hypothesis was not supported, while three were accepted, highlighting varying impacts of ERP implementation factors on SME performance.

SMEs must ensure ERP systems are user-friendly and meet user needs, with continuous feedback and improvements to maintain high satisfaction. Active top management involvement is crucial for driving projects, allocating resources, and addressing issues promptly, leading to successful implementation. Investing in reliable technical support minimizes operational disruptions. Despite the study's finding of no significant impact of training on performance, continuous training remains essential for effective ERP use. This holistic approach, encompassing user satisfaction, management support, technical assistance, and ongoing training, optimizes ERP implementation and enhances SME performance.

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Physical Servicescape's Role in Customer Satisfaction and Loyalty: Special Reference to Boutique Hotels in Nuwara-Eliya District, Sri Lanka

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ABSTRACT

The boutique hotel industry in Sri Lanka is experiencing rapid growth, with a notable focus on the physical Servicescape. These hotels offer unique facilities and personalized services that attract and satisfy guests. As the theory of environmental psychology highlights, atmospherics play a crucial role in service environments, impacting consumer emotions and loyalty. Therefore, prioritizing customer satisfaction and fostering loyalty are essential strategies for boutique hotels to flourish. Though there are many studies conducted on how physical surroundings affect to person's emotions and decision-making process, empirical and contextual gaps exist in the field of the hospitality industry. This study explores the impact of physical servicescape elements on customer satisfaction and loyalty in boutique hotels in the Nuwara-Eliya district. Further, the study explores the mediating role of customer satisfaction with physical servicescape elements and customer loyalty. Drawing from environment psychology theory, and modelled with SOR theory the researcher uses a quantitative data survey employing convenience sampling with 150 foreign guests in five famous boutique hotels in Nuwara-Eliya District. The data was analyzed through SPSS 27, and correlation analysis, stepwise regression test, and Sobel test were conducted. The study reveals that there is a positive effect of boutique hotel's physical servicescape on customer satisfaction and loyalty. Further, the ambient conditions as well as signs, symbols, and artifacts have a high impact on customer satisfaction and loyalty, and customer satisfaction significantly mediates the relationship between the physical servicescape factors and customer loyalty.

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It is recommended that boutique hotels optimize the elements of the physical servicescape, cultivating a sense of place attachment, regular monitoring, and improvement, along with staff training and customer engagement initiatives.

Keywords: Boutique hotels, customer loyalty, customer satisfaction, physical servicescape

Introduction

The concept of “Physical servicescape” refers to the physical environment where services are given or experienced, influencing both consumers and employees (Artuğer, 2020; Bitner et al., 2012). It includes three elements: Ambient Conditions, spatial layout and functionality, and signs, symbols, and artifacts, which together affect customer behaviour, satisfaction, and perceptions of service quality (Bitner et al., 2012). Boutique hotels, a niche segment, can leverage their unique design choices to enhance customer satisfaction and loyalty. Boutique hotels aim to exceed guest expectations with distinctive features and diverse physical environments that offer a more personalized and intimate experience compared to chain hotels. Many guests choose boutique hotels for the unique experience they offer, rather than just for sleeping. These hotels are distinct in their design, often aiming to evoke specific emotions or themes that align with their brand (Jeon, 2018). While there is extensive literature on servicescape and its effects, research focused on physical service elements and customer service and loyalty in boutique hotels in Sri Lanka is limited. Hence, this study expects to find the relationship between the physical servicescape elements and customer satisfaction and loyalty in boutique hotels in Sri Lanka. The findings from this research can be used as teaching tools for hospitality manager training. Understanding how physical servicescape elements affect customer satisfaction and loyalty in boutique hotels provides valuable insights for hoteliers to improve customer experiences. This study was conducted in Nuwara-Eliya, a popular tourist destination in Sri Lanka. The study is based on responses from foreign tourists, potentially influenced by their boutique hotel experiences. Additionally, the unique servicescape of each hotel means findings may not be easily generalized across different establishments.

Objectives

The research objectives include:

- I. Examining the relationship between ambient conditions in boutique hotels and customer satisfaction.
- II. Examining how spatial layout and functionality in boutique hotels influence customer satisfaction.
- III. Examining the impact of signs, symbols, and artifacts in boutique hotels on customer satisfaction.
- IV. Examining the overall customer satisfaction impact on customer loyalty in boutique hotels.
- V. Analyzing the mediating role of customer satisfaction in the relationship between the elements of physical servicescape in boutique hotels on customer loyalty.

Methodology

The research adopts a positivist philosophy, focusing on quantitative data for objective measurement and statistical analysis to draw conclusions and test hypotheses. It uses a quantitative research design and a deductive approach. The conceptual framework includes independent variables (ambient conditions, spatial layout & functionality, signs, symbols and artifacts), a mediating variable (customer satisfaction), and a dependent variable (customer loyalty). The model is based on the Stimulus-Organism-Response (S-O-R) theory, explaining how environmental stimuli, especially the physical servicescape, influence customer behaviour and reactions. The study's population comprises foreign guests at boutique hotels in Sri Lanka. The study sampled 150 foreign guests from boutique hotels in Nuwara-Eliya District using convenience sampling, with data collected via structured questionnaires between October and December. While this method was practical for logistical reasons, it may introduce selection and seasonal biases, limiting the generalizability of the findings. Despite these limitations, the study provides valuable preliminary insights into the preferences and experiences of foreign tourists in boutique hotels. Secondary data sources included research articles, journals, websites, and books. Data analysis using SPSS version 27 included reliability and validity tests, descriptive

statistics, Pearson correlation to measure variable relationships, and multiple regression to assess the impact of independent variables on outcomes. The Sobel test was used to examine the mediation effect of customer satisfaction between physical servicescape elements and customer loyalty.

Results

A total of 150 foreign guests responded to the questionnaire, with 57.3% male and 42.7% female. Most guests (74.7%) were aged 21-30, and 25.3% were aged 31-50. Regarding boutique hotel stays, 42.7% had stayed once before, 48.7% had stayed twice, and 8.7% had multiple stays.

The Pearson Correlation analysis (Two-tailed) reveals significant positive correlations between Ambient Conditions and both Customer Satisfaction ($r=0.655$, $p< 0.01$) and Customer Loyalty ($r=0.623$, $p< 0.01$). Similarly, Spatial Layout & Functionality shows significant positive relationships with Customer Satisfaction ($r=0.616$, $p< 0.01$) and Customer Loyalty ($r=0.623$, $p< 0.01$). Signs, Symbols & Artifacts also demonstrate significant positive correlations with Customer Satisfaction ($r=0.702$, $p< 0.01$) and Customer Loyalty ($r=0.670$, $p< 0.01$). Furthermore, Customer Satisfaction exhibits strong positive correlations with Ambient Conditions ($r=0.655$, $p< 0.01$), Spatial Layout & Functionality ($r=0.616$, $p< 0.01$), and Signs, Symbols & Artifacts ($r=0.702$, $p< 0.01$). Customer Loyalty similarly correlates positively with all independent variables: Ambient Conditions ($r=0.623$, $p< 0.01$), Spatial Layout & Functionality ($r=0.623$, $p< 0.01$), and Signs, Symbols & Artifacts ($r=0.670$, $p< 0.01$). Finally, there is a strong positive correlation between Customer Satisfaction and Loyalty ($r=0.793$, $p< 0.01$).

The regression analysis indicates that the probability of the Ambient Conditions is highly significant and positively influences Customer Satisfaction. The unstandardized beta coefficient for Ambient Conditions is the highest, making it the most influential factor for Customer Satisfaction ($\beta=0.368$, Sig.=0.000). Additionally, Signs, Symbols, and Artifacts also significantly influence Customer Satisfaction, ranking as the second most influential factor ($\beta=0.306$, Sig.=0.000). Spatial Layout & Functionality positively impact Customer Satisfaction as well, though it is the least influential among the three factors ($\beta=0.138$, Sig.=0.034). All tolerance and VIF values fall between 0.1 and 10, indicating no multicollinearity issues among the variables. According to the individual regression analysis, there is a strong positive relationship between Customer Satisfaction and Customer Loyalty. The t-statistic of Customer Satisfaction 15.812 is highly significant

($p < 0.001$), reinforcing the robustness of this relationship. The collinearity statistics show no issues with multicollinearity.

The Sobel test shows that the mediator variable, Customer Satisfaction, along with the independent variable, Ambient Conditions, significantly explains the dependent variable, Customer Loyalty. It concludes that the indirect effect of Ambient Conditions on Customer Loyalty through Customer Satisfaction is statistically significant (T stat: 4.69293913, $P=0.00000269$). The test also reveals a significant indirect effect between Spatial Layout & Functionality and Customer Loyalty via Customer Satisfaction (T stat: 2.06767256, $P=0.03867082$). Additionally, the indirect effect of Signs, Symbols & Artifacts on Customer Loyalty through Customer Satisfaction is statistically significant (T stat: 3.52435787, $P=0.00042451$) at the 0.05 level. These results indicate that Customer Satisfaction significantly mediates the relationship between Physical Servicescape factors (Ambient Conditions, Spatial Layout & Functionality, and Signs, Symbols & Artifacts) and Customer Loyalty.

Discussion

The findings of the study revealed a diverse demographic profile of respondents. The confirmatory factor analysis indicated strong internal consistency and construct validity. The study also found that three physical servicescape elements are strongly associated with customer satisfaction and collectively influence customer satisfaction and loyalty. The physical servicescape elements also indirectly affect customer satisfaction through satisfaction, with partial mediation. These findings support the importance of a well-crafted physical servicescape in enhancing customer engagement, aligning with research by Li and Wei (2021), Hanks and Line (2018), and Line and Hanks (2019).

Conclusion

This study concludes that elements of physical servicescape play a critical role in determining customer satisfaction and loyalty within boutique hotels. The research also discovered that highly satisfied customers are more likely to engage in positive behaviours such as revisiting the hotel, sharing positive reviews, and providing suggestions for improvement. Consequently, the study suggests boutique hotel managers enhance

customer satisfaction and loyalty in boutique hotels, focusing on improving ambient conditions through optimized lighting, temperature control, and pleasant scents. Ensure functional and flexible spatial layouts with ergonomic furniture, clear navigation, and accessible design. Incorporate local art, consistent branding, and interactive elements to create a unique and memorable guest experience through inspections, development, staff training and customer engagement initiatives. The study has been limited to a small, geographically concentrated sample and a cross-sectional design, which may limit generalizability and insights over time. Future research could expand to other regions and hotel types to validate these findings and explore the long-term impacts of servicescape enhancements on customer loyalty.

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Study on Factors that Influence Issues and Challenges in Library Advocacy Programmes within Gampaha District Public Libraries

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ABSTRACT

Library Advocacy is a concept that plays a significant role in promoting the value of libraries and can be implemented to provide resources and stakeholders' support towards the library in general or in a critical stage. The research problem revolves around the issues and challenges librarians face when conducting library advocacy programmes in the context of challenging economic conditions that affect the effectiveness and sustainability of these programs in the public libraries within the Gampaha district, Sri Lanka. The main objective of this study was to identify the factors influencing issues and challenges that emerged in conducting these programs. Eight public libraries were selected as the sample. The study employed a mixed-method approach using surveys and interviews to collect primary data from librarians. The collected data were analyzed using thematic analysis and descriptive statistical analysis through Microsoft Excel. Findings revealed that public librarians conduct these programs as Library extension services while confronting resource constraints, and limited funds. The main factors identified were a lack of awareness, limited stakeholders' support, insufficient user participation, and technical barriers. Recommendations were made to raise awareness of the importance of the library advocacy concept among librarians and staff. In addition, more publicity activities should be conducted using marketing tools to enhance participation in library advocacy programs and build optimistic collaboration with stakeholders. Findings provide insights to contribute to the development of library and information services through effective library advocacy programmes that lead to conquering current global challenges that affect the role of libraries.

Keywords: Library Advocacy, Public Libraries, Advocacy Programmes. Factors influencing issues.

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Introduction

Public Libraries play a significant role in providing library services, supporting educational initiatives, and fostering community engagement which tends to enhance a quality society from all aspects. Today libraries face issues and challenges due to a lack of support and funding, impacting their ability to acquire resources and provide services. Therefore, library advocacy is a well-known concept that can be applied in day-to-day library services. Library advocacy involves actively organizing support promotion and defense in public (Sarkar, 2014). Further library advocacy can be implemented in library services, particular library programmes, and public services, including reference, information, and reader services. These efforts' purpose is to lead in creating paths for financial strengthening and building and maintaining library awareness in the community (Hicks, 2016). In the Sri Lankan context libraries implement library advocacy programmes as library extension services which emphasize library advocacy is an unfamiliar word among libraries and library users in Sri Lanka (Jayasekara, 2017). As a developing country, it is essential to recognize the importance of prominent concepts to pursue community and stakeholders' support towards the library. In that case, it is necessary to identify factors influencing issues and challenges in library advocacy programmes in public libraries and clarify those to implement such concepts effectively with new emerging trends that contribute to ensuring a quality library service within the community. There is a dearth of research on library advocacy, specifically focusing on factors influencing issues and challenges in public library advocacy programmes. Therefore, this study intended to fill this gap which is crucially important for developing strategies to enhance effective library services by addressing public library advocacy programmes in Gampaha District.

Objectives

The primary objective of this study was to identify factors influencing issues and challenges in library advocacy programmes in Gampaha district public libraries.

Methodology

This study employed a mixed–methods approach, combining both qualitative and quantitative data to comprehensively investigate the factors influencing issues and challenges in library advocacy programmes within the Gampaha

district. The study's sample consisted of eight librarians from the Gampaha district. The Western Province has the highest number of public libraries in Sri Lanka, compared to the Colombo and Kalutara districts, Gampaha has the highest number of public libraries, representing 81 libraries (National Library and Documentation Service Board Sri Lanka, 2022). For the selection process of the sample, a stratified random sampling technique was employed, ensuring the representation of different library types. The sample includes two Municipal Councils, two Urban Councils, and four Pradeshiya Sabha public libraries. Structured questionnaires and in-depth interviews with all selected librarians were carried out in person to collect primary data. Descriptive statistics and thematic data analysis were used for the data analysis process through Microsoft Excel.

Results

Table 01- Factors influencing issues when conducting library advocacy programmes in Municipal council libraries

Factors influencing issues when conducting library advocacy programmes in Municipal council libraries	No.of votes	Percentage
Budget cuts	1	50%
Limited resources	0	0%
Staff recruitment delay	2	100%
Lack of stakeholders' support	1	50%
Communication and information weaknesses	0	0%
Political influence	0	0%
Lack of community cooperation and participation	2	100%
Technical barriers	2	100%

Source: Survey Data

Table 01 depicts the factors influencing issues when conducting library advocacy programmes in municipal council libraries. Staff recruitment delay (100%), Technical barriers (100%), budget cuts (50%), lack of stakeholders' support (50%), and lack of community cooperation and participation (50%).

Table 02- Factors influencing issues when conducting library advocacy programmes in Urban council libraries

Factors influencing issues when conducting library advocacy programmes in Urban council libraries	No.of votes	Percentage
Budget cuts	1	50%
Limited resources	0	0%
Staff recruitment delay	2	100%
Lack of stakeholders' support	0	0%
Communication and information weaknesses	1	50%
Political influence	0	0%
Lack of community cooperation and participation	1	50%
Technical barriers	2	100%

Source: Survey Data

Table 02 depicts the factors influencing issues when conducting library advocacy programmes in urban council libraries. Staff recruitment delay (100%), Technical barriers (100%), budget cuts (50%), communication and information weaknesses (50%), and lack of community cooperation and participation (50%).

Table 03- Factors influencing issues when conducting library advocacy programmes in Pradeshiya Sabha libraries

Factors influencing issues when conducting library advocacy programmes in Pradeshiya Sabha libraries	No.of votes	Percentage
Budget cuts	4	100%
Limited resources	4	100%
Staff recruitment delay	4	100%
Lack of stakeholders' support	2	50%
Communication and information weaknesses	4	100%
Political influence	2	50%
Lack of community cooperation and participation	4	100%
Technical barriers	4	100%

Source: Survey Data

Table 03 depicts the factors influencing issues when conducting library advocacy programmes in Pradeshiya Sabha libraries. Technical barriers (100%), communication and information weaknesses (100%), limited resources (100%), lack of community cooperation and participation (100%), budget cuts (100%), and staff recruitment delay (100%) and 50% state on lack of stakeholders' support, and political influences as the factors that influence issues when conducting library advocacy programmes.

Discussion

The study data reveals critical factors affecting issues and challenges when conducting public library advocacy programmes under different types of libraries. In Municipal council libraries, identified factors were primarily centered around staff recruitment delays and technical barriers. These factors emerge issues on segregation of duties, staff fatigue, and ineffective library advocacy programmes. Urban council libraries share similar factors as municipal council libraries. Additionally, communication gaps and community engagement were identified. In contrast, Pradeshiya Sabha libraries face a wider array of factors contributing to a broader spectrum of severe issues on limited funds and resources and challenges in communication, low community participation, and political support. Negative factors such as limited access to stakeholders, unenthusiastic librarians, and political non-involvement (Anyanwu & Obichere, 2013), highlight the need for strategic identification and resolution. Addressing these issues is essential for successful strategizing and restructuring effective library advocacy programmes.

Conclusion

Across all types of libraries common factors, staff recruitment, and technical infrastructure demand immediate actions. While financial constraints and challenges with stakeholders and community engagement persist, effective advocacy strategies must be prioritized in addressing the unique complexities observed, especially in Pradeshiya Sabha libraries. Public librarians' unfamiliarity with advocacy concepts often leads to these programmes being conducted as extension services in Gampaha public libraries, it is recommended that lectures, training programmes, and

workshops be conducted to raise awareness of library advocacy concepts among legislators, librarians, and staff for facilitating strategic planning and the implementation of effective programmes. Additionally, publicity activities should utilize marketing tools to enhance participation in library advocacy programmes and build optimistic collaboration with stakeholders. These actions aim to strengthen support financially and physically and improve advocacy initiatives' impact within the community.

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