Outcome Assessment

DIGITAL LIBRARIES (E-LIBRARIES) PROJECT

MAY 2021

Outcome Assessment of the Digital Libraries (E-Libraries) Project produced on behalf of Information and Communication Technology Agency (ICTA), Sri Lanka

by;

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Executive Summary

The digital library initiative aims to provide access, and promote effective usage of electronic information/e books and educational materials to the citizens. This project was initiated as a pilot project in year 2017. Initially five libraries were selected and rolled out to another three public libraries in 2018. Reading habits of the modern-day readers are expected to change rapidly with the use of Information and Communication Technologies. The readers are shifting from the traditional sources of reading; printed materials to e-materials (e-books). Technology offers people far more easy and competitive ways for their education and learning. By the time ICTA started the project, no single public library in Sri Lanka has implemented cloud-based library management system. Only a limited number of libraries in higher education sector has implemented integrated library management systems. But use of contemporary technology like use of barcode, Radio Frequency Identification (RFID) or Short Message System (SMS) are very rare even in higher education sector libraries. This has been clearly identified in the baseline study; the public libraries in Sri Lanka are not ready and equipped to address the rapid changes of the reading habits of "modern-day" readers. Libraries have not been able to provide easy and quick access to global reading materials efficiently and effectively. This could reduce the level of interest of readers towards libraries and the number of library users will be reduced with the time. Given the context, the digital library project was introduced as a solution to address these issues.

Library Automation is a process of automating the traditional functions/activities of libraries and services such as acquisition, cataloguing, circulation, serial control system and other related activities. The current information age, demands libraries to adapt to automation services in library operations and services for enhancement of effective and efficient services to the user community. Such automation not only provides considerable support for the library staff for their routine work performance, but also provides facilities like easy operations through database connectivity across geographies using internet. Therefore, the expected outcomes of the project were a) Digital / e-content on education are available, accessible b) Increased user perception on digital libraries as a digital/ e-learning center c) Improved awareness on services offered by digital libraries

The digital libraries were provided with modern ICT equipment, namely, all in one computer, smart devices/tablets and photocopy machines. An appropriate reader friendly environment with sufficient spacing and furniture was provided. The ICT equipment were connected by a local area network and provided with high-speed internet. The project also focused on establishing systematic procedures to collect information from national and international information sources, store, and organize in digital form. ICTA has provided training for the selected library staff of eight libraries on KOHA system for efficient and effective service delivery. The Training of Trainers (ToT) sessions were conducted to transfer the knowledge to the rest of the staff.

In terms of achieving the outcomes of the project; it is evident that patron registration (library users) increased in 2019 in three libraries. The library staff claimed that it was due to the enthusiasm created due to library digitalization. Impact of the library digitalization observed through the improved participation of library users including children as well. Children participation and use of library has been increased mainly due to the introduction of tabs, and *makeaspace* project activities.

Furthermore, the library staff are very enthusiastic about the project and highly satisfied with the support given by the ICTA project team including training facilities. They believe that IT increases the productivity of library staff. It relieves professional staff from clerical chores so that they can be fruitfully used for user-oriented library services. Therefore, library service delivery has been improved compared to the baseline situation in project locations.

According to the study findings, the major benefits of the automation of libraries; are 1) large data can be handled with ease and accuracy 2) ease in function of book search, i.e OPAC provides search option for patron making which is convenient to locate the book and details and 3) ability to library staff generate reports including annul book count 4) save the time of both user and staff. Further Libraries have been widely acclaimed and appreciated the provided infrastructure facilities and services provided by the ICTA project. It has attracted the attention of the Provincial Councils and the Local Government Institution on the development of library and its automation. Also, it was noted that reader friendly infrastructure facilities with modern designs provided were advantageous to the users and attracting them to the libraries.

Importantly, maintenance and replacement of equipment is a concern for its sustainability. Two out of seven libraries have reported that they encountered challenges in the maintenance of equipment. The support provided by ICTA project team including training was highly regarded by the library staff. It was helpful for them not only to improve their knowledge and application on automation processes but also to gain the basic ICT skills and innovative service delivery approaches. However, many of the staff highlighted the importance of having further training opportunities including basic ICT skills.

Therefore, the main recommendations of the study include, 1) networking of all public libraries would bring effective and efficient library service to the library staff as well as the readers/ public 2) Web OPAC facility should be provided both within and outside the library and create awareness among the users for the effective utilization of library resources 3) structured training including on the job trainings are to be conducted to the library staff at regular intervals. and 4) ensure the sustainability of the project through operationalization of partner agreements specially on the areas of hardware maintenance and replacements.

1.0 Introduction

1.1 Overview of the Project

It was identified in the project proposal that the public libraries in Sri Lanka are not ready and equipped to address the rapid changes of the reading habits of "modern-day" readers and libraries have not been able to provide easy and quick access to global reading materials efficiently and effectively. This could reduce the level of interest of readers towards libraries and the number of library users will be reduced with the time. Public Libraries is an important place for creating the reading culture of the country. During last couple of decades, the reading culture for the library users has significantly changed and the new generation prefers electronic books and using devices.

In the modern world the libraries have a great potential in becoming dynamic places in dissemination of knowledge across the society in various ways. Even in united nation information society indicators it has been recognized that digitalizing the libraries is an important aspect in society development.

The growth and development of Information and Communication Technology (ICT) is playing a vital role in the field of library and information science and library automation. Digitalization of library is a process of automating the traditional functions/activities of libraries and services such as cataloguing, circulation, and other related activities. Much of the work involved in a library are repetitive, tedious, and mechanical in nature requiring accurate updating of records in files. For an example, the same bibliographic record in a library is used to perform multiple operations. A bibliographic record created at the time of ordering a document is first used for its acquisition, then for technical processing and subsequently for library OPAC, circulation, binding, etc.; Therefore, the application of information technology in libraries results in increasing operational efficiency. It ensures ease of functioning, accuracy and economy in human labor with greater speed. Such automation not only provides considerable support for the library staff for their routine work performance, but also provides the quality service to the library users.

Importantly, the reading habits of the modern-day readers are changing rapidly with the usage of Information and Communication Technologies. The readers are shifting from the traditional Sources of reading; printed materials to e-materials (e-books). Technology offers people far more easy and competitive ways for their education and learning. It is observed that the libraries in Sri Lanka are faced with severe challenges including the need for better educational resources as well as appropriate technology infrastructure. Public Libraries of Sri Lanka do not have the potential to provide easy and quick access to global reading materials efficiently and effectively. This could reduce the level of interest of readers towards libraries, therefore the number of library users could be declined with the time

Therefore, in that context with the objective to provide convenient and affordable access to, and promote effective usage of electronic information/e books and educational materials to citizens "Digital Libraries for Knowledge Enhancement" project was initiated by the Information and Communication Technology Agency of Sri Lanka (ICTA) in collaboration with the National Library and Documentation Services Board (NLDSB). This was a three-year project to establish 26 'Digital Libraries' across the country during 2017 to 2019 period.

The key components of a digital library are:

- Infrastructure and smart devices
- Digital Collection
- Integrated library information management system
- Connectivity and access
- Human resources with required capacities

1.2 Expected Outcomes of the initiative

As highlighted below, are the project outputs and outcome of the digital library project as per the project proposal.

Outputs

- Established twenty-Six (26) digital libraries in each district with LGN connectivity
- Established 100 Integrated Library management system in public libraries and host information in Lanka Government Community Could
- Established systematic procedures to collect information from national and international information sources, store, and organize in digital form including reference Model for Digital Library Systems
- Access to digital information services provided effectively and efficiently for all
- Trained library staff for efficient and effective service delivery
- Proper Project management mechanism in place
- Proper awareness campaign provided on digital libraries

Outcomes:

- Improved awareness on services provided by libraries
- Improved access to and usage of digital information and eBooks
- Improved reading habits and increased number of library users

1.3 Timeline of the Project

During the pilot phase of the project implementation, 7 libraries were selected (out of the total 26) and actual project roll-out began from June 2019. Below figure highlights the key milestones of the project.

Figure 1 : Timeline of the digital library project
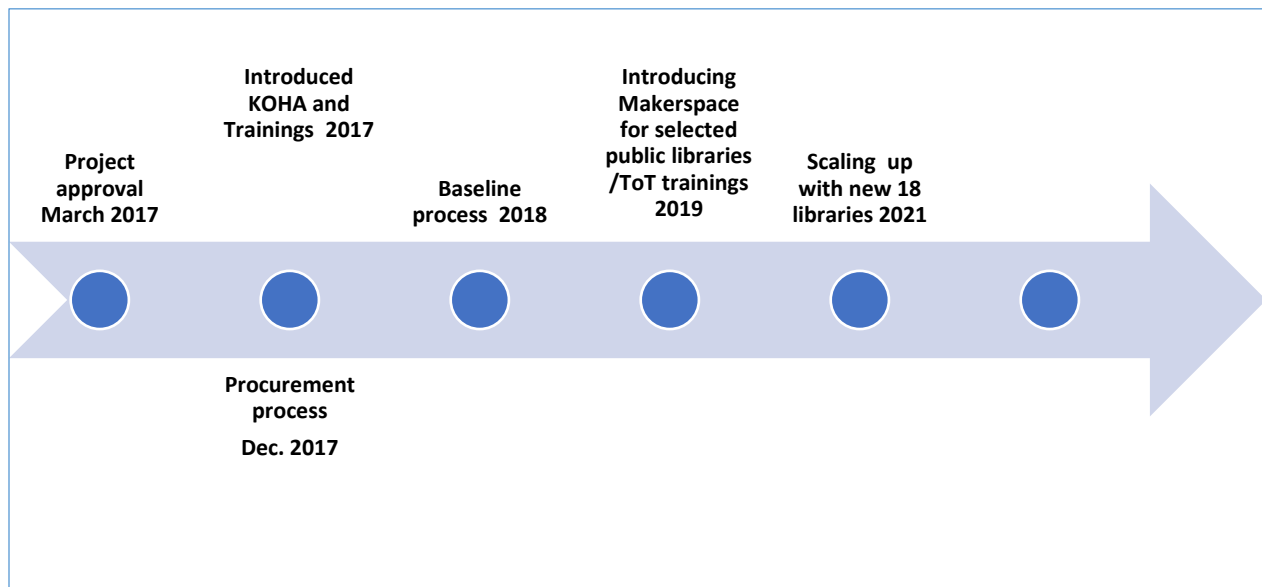
Source: Project Manager Interviews

Accordingly, the project proposal was submitted to Department of National Planning as a part of the country digitization initiative in ~~on~~ March, 2017 and was approved in late 2017. At the same time, project planning was carried out jointly with the stakeholders and the logframe of the project was developed agreeing to outcomes and outputs in a participatory session.

Baseline study was carried out in 2018 and based on the report it was able to understand the existing situation of the selected libraries at the time the project was started.

Comprehensive training was given to the libraries staff with an aim of changing the attitudes and behaviors ~~in~~ towards adopting digital technologies and providing services to users effectively and promote to make the library more attractive new users.

1.4 Objectives of the study

The Objective of this study as stated is to;

1. Assess the extent to which program initiatives had contributed towards meeting the intended objectives/outcomes
2. Understand how project outcomes had been achieved or not achieved and related issues
3. Examine the challenges faced by the staff during the implementation and to recommend improvement for future projects and
4. Identify what actions required to implement and further improve the project results.

Accordingly, the M&E consultant team has developed the conceptual methodology and data collection tools, described in the next section. To understand better, the library digitalization process–workflow (figure 2) was developed in the consultation with the project management team and technical expertise of the project. KOHA system has different modules. Among them patron and catalogue are considered as most critical and important. However, the adaptation of the module in each library is different depending on the scale of the library functions and staff capacity. This It will help to understand the main challenges and bottleneck of the project has faced so far.

1.5 Overview of Library digitalization process

Diagram below explains the digitization process of the libraries adopted in the initial 7 public libraries.
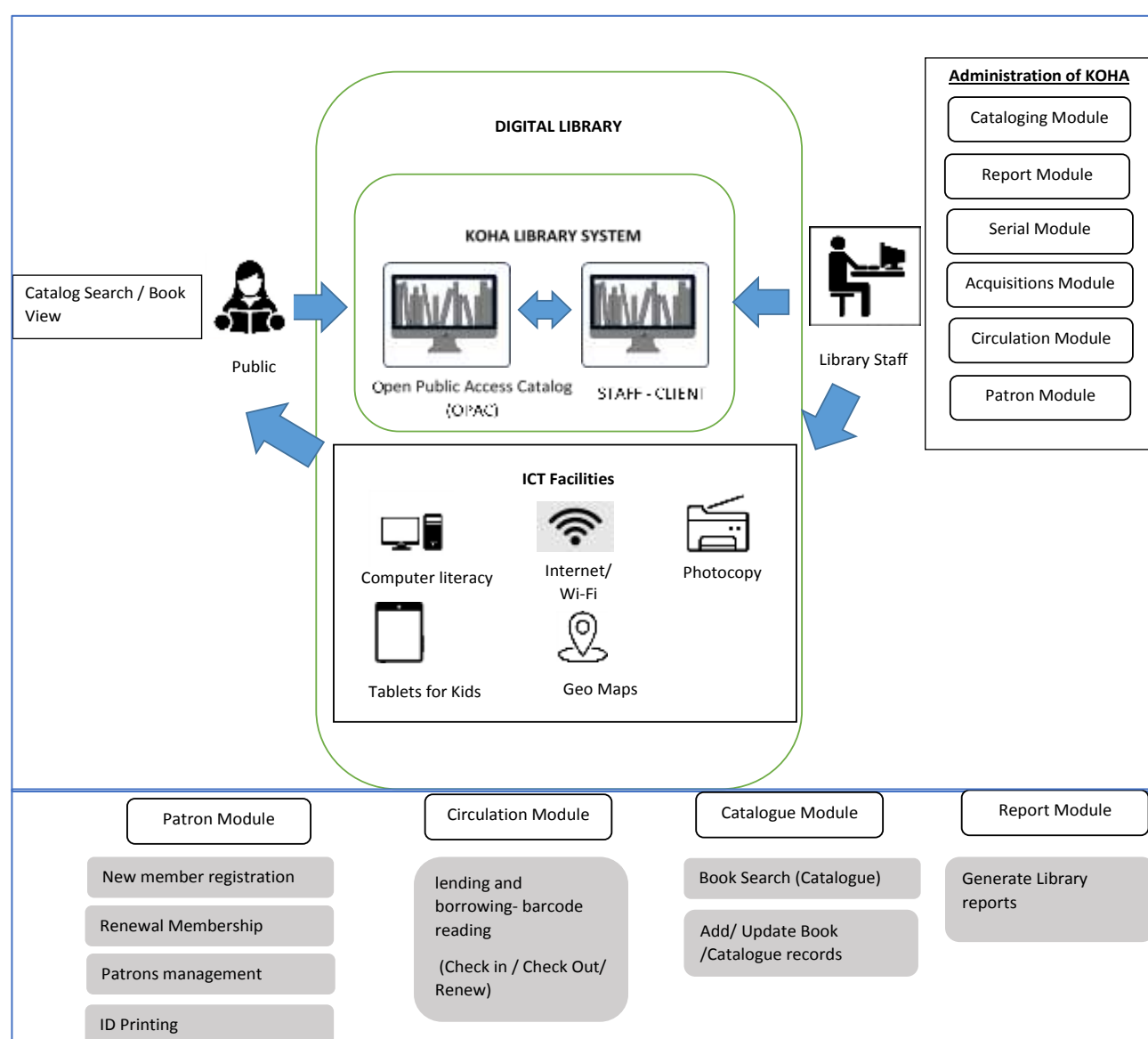
Figure 2 :Overview of the Library Automation Project

2.0 Study Methodology

The study was conducted in all seven libraries and the consultant team was able to visit four libraries physically and other three libraries were connected via online methods. Mixed methods of rapid appraisal techniques, including both quantitative and qualitative techniques, were used in the study. Accordingly, semi structured interviews, Key informant interviews (KII)) and self-perception questionnaires surveys were conducted. The questionnaire was distributed to the library staff during the visits to assess their perception on the KOHA system and its functionalities. As such 17-library staff were interviewed and 30 staff self-perception on their capacity on KOHA was taken into consideration. (Annexure 3) Further, the consultant team conducted rigorous secondary data analysis and review, including project NPD proposal, Baseline report and KOHA system data and including other similar studies. Data analysis was performed using descriptive statistics and content analysis methods.

Table 1: Data Collection Progress of the Digital Library Project

Library name	Methods of data collection	No of staff interviewed participated in KII	No of staff participated in the self-administered perception questionnaire
1. Colombo	Completed on 29th March with field verification	2	8
2. Kirimatiyana	Completed on 31th March with field verification	3	3
3. Kurunegala	Completed on 22nd March with field verification	3	4
4. Opanayake	Completed on 30th April with field verification	3	3
5. Batticaloa	Virtual meeting on 8th May	1	4
6. Badulla	Virtual meeting on 7th May	2	5
7.Polonnaruwa	Virtual meeting- 9th May	2	4
8. National Library	Virtual meeting – 31st of May	1	0
Total staff		**17**	**30**

However, due to the sudden surge of the pandemic situation in the country and ensuing visit restriction imposed by the organisations for outsiders, only four public libraries were visited. Rest of four libraries were contacted virtually to get the information with pre-planned appointments while adhering to the interview guides.

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3.0 Major Findings

Findings were analyzed to assess the level of achievement or no-achievement of expected project outcomes derived from the delivered outputs of the project. First section explains the achievements of outputs and project deliverables followed by the observed intermediate results and the outcome achievements of the project.

3.1. Basic Information of Libraries and details of project

Below table illustrates the basic information for seven libraries including total active patron, catalogue and average users per day.

Table 2: Basic information of libraries

Library name	Year of commencement of the library	Local government administration	Patron records in the system (as at March 2021)	Catalogue record in system	Average patron per day
1. Colombo	1925	MC	24871	154511	500-600
2. Kirimatiyana	1978	PS	746	21501	100-125
3. Kurunegala	1963	MC	3500	69201	400-500
4. Opanayake	1971	PS	1122	8878	80-100
5. Batticaloa	1957	MC	1449	25345	400-500
6. Badulla	…..	MC	2412	24314	350-400
7.Polonnaruwa	1965	PS	1448	18662	125-150

Public Libraries are administrated by local government authorities and out of seven, four libraries are administrated by Municipal Councils (MC) and rest of the three administrated by Predeshiya sabas (PS). Highest number of patrons and catalogues were reported from Colombo public library, which is an obvious fact. Among the rest, the highest average library users per day is recorded in Kurunegala and Batticaloa and that is 400-500 per day.

3.2 Achievement of project output in terms of deliverables

Section below highlights the project's major achievements in terms of outputs and deliverables. Therefore, Infrastructure and Smart Devices, Digital collection and adaptation of Integrated Library Information Management System (KOHA) are discussed in detail.

3.2. 1. Infrastructure and Smart Devices

The key constraint faced by the public library sector for digitalization is the lack of funds to precure required hardware and software facilities. Therefore, as a part of the project ICTA has provided the required infrastructure facilities for all the libraries selected. The list of infrastructure provided to each location is attached in Annexure 1. The equipment and computer system (all in one computer, Tabs, furniture, KOHA system, Server) provided to the libraries were modern and well equipped, giving the libraries a new look as well as a new lease of life.

Importantly, the maintenance and replacement of equipment are concerns for their sustainability. Although there is a memorandum of understanding between ICTA and the relevant local authority in this regard, libraries depend on the local authorities PS/ UC for funds for maintenance. There have been few cases reported (two out of seven) with regards to the support of the authorities for the maintenance of equipment. For an example, Kurunegala Library reported a delay of two months by the urban council in attending to the maintenance or replacement of the defective server. Polonnaruwa Library has raised the issue that service providers were not attending to rectify the issues raised six months back. According to the self-perception survey conducted, only half (53%) of the library staff have confidence on the budget assurance for the maintenance of the infrastructure facilities. (Graph 3). The library staff should demand these facilities from their authorities, which is the basic agreement.

3.2.2. Digital Collection

Digital collection means establishment of systematic procedures to collect information from national and international information sources, store, and organize in digital form including reference Model for Digital Library Systems. The use of the digital information is gradually and steadily growing. Therefore, there is a pressing need for the digital libraries to development of digital collection, digitization of library resources and providing digital information services to the users.

This activity is still in the initial stage and currently piloted only at the Colombo public library. Also, it was learnt that; there are few obstacles in achieving this initiative due to the high cost of obtaining digital content compared to the manual books, tedious process of obtaining authors' consent, and low level of interest for digital collection in rural libraries. However, project team's work is in progress with this initiative as the aim is to develop a model, so that other libraries can replicate the same.

3.2.3. Integrated Library Information Management System (KOHA)

There are mainly six types of modules in KOHA system and its adaption varies from library to library. Below table summarizes the level of automation of each library with respect to adaptation of KOHA modules.

Table 3: Type of modules in KOHA and its usage in each library

Library name	Patron	Catalogue	Circulation	Acquisition	Search - OPAC	Reports
Colombo	Fully	Fully	Fully	Fully	Fully	Fully
Kirimatiyana	Fully	Fully	Fully	No	Fully	Partially
Opanayake	Fully	Partially*	Partially	No	Fully	Partially
Kurunegala	System was not functioning at the time of visit					
Polonnaruwa	Fully	Partially **	Partially	No	Fully	No
Batticaloa	Fully	Fully	Fully	No	Fully	No
Badulla	Fully	Fully	Fully	No	Fully	Partially

*733 – book record to be entered, **- 13,000 book record to be entered.

Accordingly, majority of the libraries are fully adapted with Patron, catalogue and circulation modules. However, Colombo public library could be considered as the benchmark for other libraries. They have been pioneered in the digitalization process for Sri Lankan public libraries and introduction of KOHA to Colombo library has happened in year 2015. Almost all the modules have been successfully adapted in Colombo public library and currently serving as 'a knowledge hub' over the digitalization process. Reporting is an important module for the library management to extract the required reports accurately and timely. However, Colombo Library has the capacity to generate required reports for adaptive management of library services, whereas Kirimatiyana, Opanayake and Baddulla libraries have generated fewer reports as required.

Total Number of Books in the System

This refers to the cataloguing of the KOHA system. Cataloguing was initiated with the start of the project and many libraries it was June 2019. Entering of book references to the system was completed adhering to the standard format of MART. Libraries have adapted different mechanisms to enteri–data into the system and many have taken the support of hired staff to complete this task. It was a technical and time-consuming process and library staff had to manage the routine work while managing the data migration. It was highlighted by the library staff that it takes 5- 10 minutes to enter one record (catalogue). All libraries have completed the catalogue process except *Opanayaka* and Polonnaruwa. According to the staff; *Opanayaka* library has 733 book records to be entered and Polonnaruwa has 13,000 book catalogues to be entered.

Total Number of Patron System

Parton is the other important module in the KOHA and it captures the records and details of library users. Parton record entering is an ongoing process for all libraries and this has been initiated from June 2019 for many locations. Library membership should be renewed in every two years and many patron records captured in 2019, is in the renewal process for 2021. This process is followed according to the same manual workflow adapted. Parton registration will take 5-10 minutes to register a new member. However, the digital ID card has not yet been issued to the patron in *Kirimatiyana* and *Opanayake* Libraries. This is due to the delays in finding service providers and resource allocation in Pradeshiya Saba level (PS) for ID printing. Therefore, adaptation of circulation modules has been delayed. Below Table shows the current/ active patron for all libraries.

Table 4: Parton record and Catalogue in the KOHA system as per March 2021.

Library name	Patron records in system as at March 2021	Catalogue record in system
Colombo	24871	154511
Kirimatiyana	746	21501
Kurunegala	3000	69201
Opanayake	1122	8878
Batticaloa	1449	25345
Badulla	2412	24314
Polonnaruwa	1448	18662

Source: KOHA system data extraction

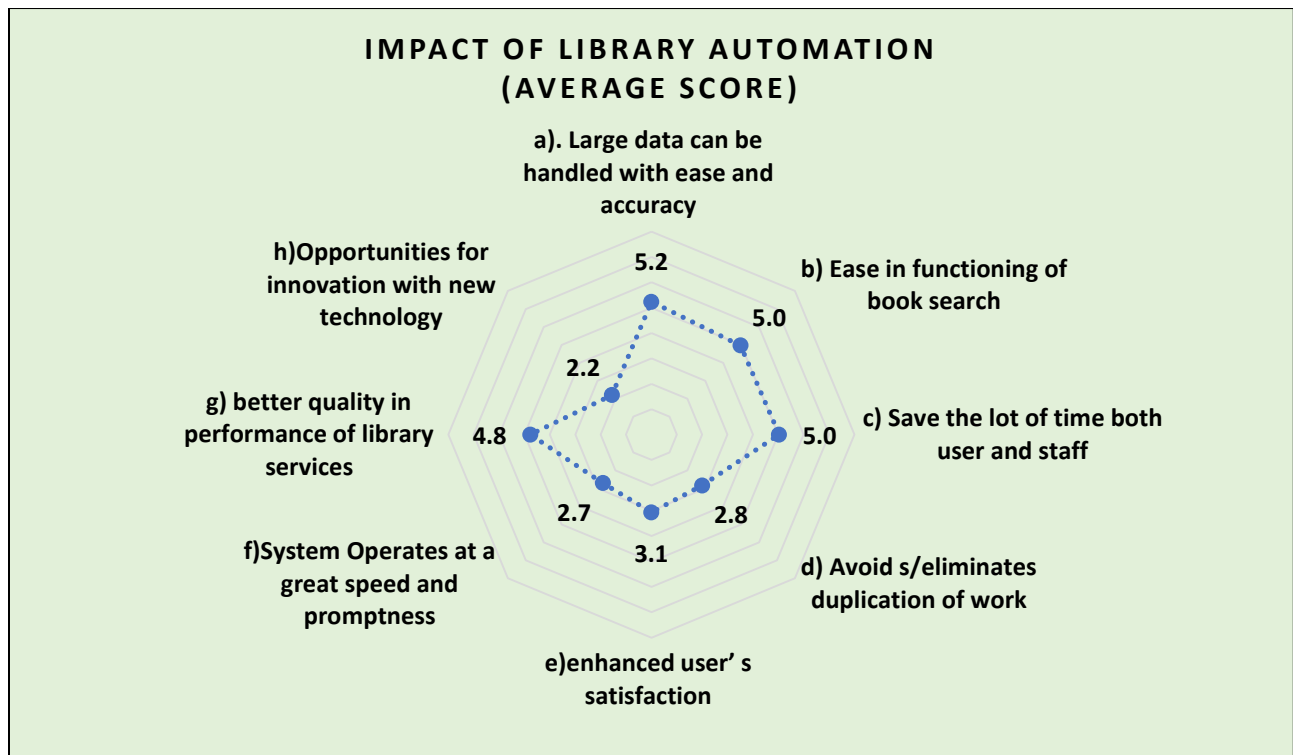## 3.3. Observed outcomes of the model libraries

With the introduction of required ICT infrastructure, and automation software in public libraries shows improvement in terms of increasing the efficiency of service delivery and a positive impact on library development. Library automation helps the library staff to effectively and efficiently service the users. Below section explain the observed outcomes, of the digital liberal project, namely improve library service, improve participation of library use, improve library facilities and improve human resource and capacity

3.3.1 Improved library service

Below graphs show the library staff perception on the impact of automation of public libraries in terms of service delivery improvements

Figure 3: Impact of Automation

IMPACT OF LIBRARY AUTOMATION
(AVERAGE SCORE)

a). Large data can be handled with ease and accuracy — 5.2

b) Ease in functioning of book search — 5.0

c) Save the lot of time both user and staff — 5.0

d) Avoid s/eliminates duplication of work — 2.8

e)enhanced user' s satisfaction — 3.1

f)System Operates at a great speed and promptness — 2.7

g) better quality in performance of library services — 4.8

h)Opportunities for innovation with new technology — 2.2

Source: staff perception survey

According to the prioritization done by the library staff the major benefits of the automation as identified are 1) Large data can be handles with ease and accuracy 2) Ease in function of book search, i.e OPAC provides search option for patron making which is convenient to locate the book and details and 3) save the time of both user and staff.

3.3.2 Improved participation and library use

Below graph shows the trend of new patron registration of four libraries namely Baddula, Batticlloa, Opanayake and Kirimatiyana. Data was extracted from the KOHA system, and it reveals that there has been a considerable improvement in new patron registration and it might be due to the digitalization of process of libraries.

Figure 4: New Patron Enrollment for 2018-2020

New Patrons Enrolled Annually
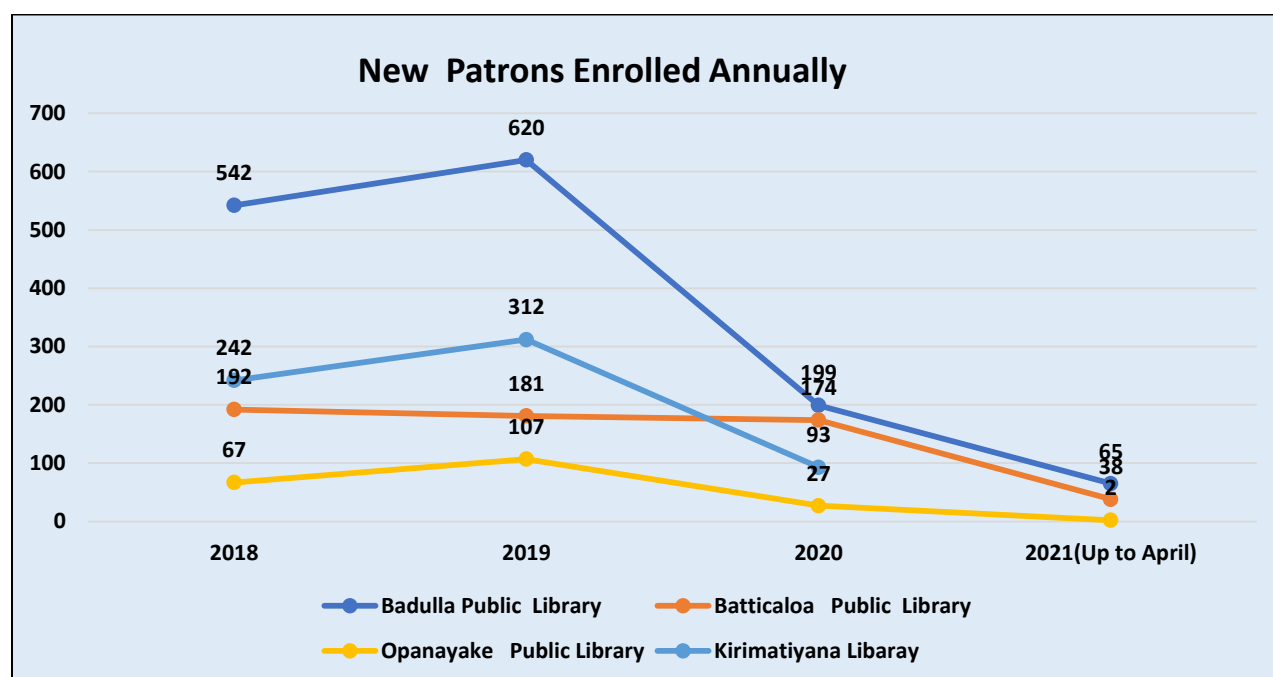
Source: KOHA System data

As illustrated in the above graph, it is evident that patron registration has increased in 2019 in three libraries. The library staff claimed that it was due to the enthusiasm created due to library digitalization. However, the numbers have decreased in 2020 and 2021 in all library locations due to the restrictive movements and COVID 19 pandemic situation.

Similarly, Ability to focus on improving the quality of services provided to children was widely accepted in many locations. Children participation and use of library has been increased mainly due to the introduction of tabs, educational apps and initiative such as Make a space. Project team has taken many adaptive management strategies with collaboration of local government authorities in order make the project success. One such thing was the introduction of 'Make a space' concept to the libraries which is mainly focus on to develop children STEM education.

3.3.3 Improved library facilities

All libraries visited currently provide various facilities to the public such as internet facilities, photocopying facilities, document scanning facilities, providing Gio maps and WIFI facilities etc. This was one of the sustainability strategies of the project, which has been instrumental in generating income for the libraries through value added ICT services such as photocopy, scanning, printing, CD/ DVD writing, internet services throughout the period. According to the library staff, library services have been more popular due to these ICT facilities provided. Therefore, user visits to the libraries including children have increased due to library digitalization project. Graphs below show how the Colombo and Kirimatiya

libraries use tabs and internet from 2017 – 2020. It further   reveals that Kirimatiyana being a rural library, has taken the initiative to take the ICT facilities to the village similar to Colombo.

Figure 5: Internet and tab usage of Colombo and Kirimatiyana
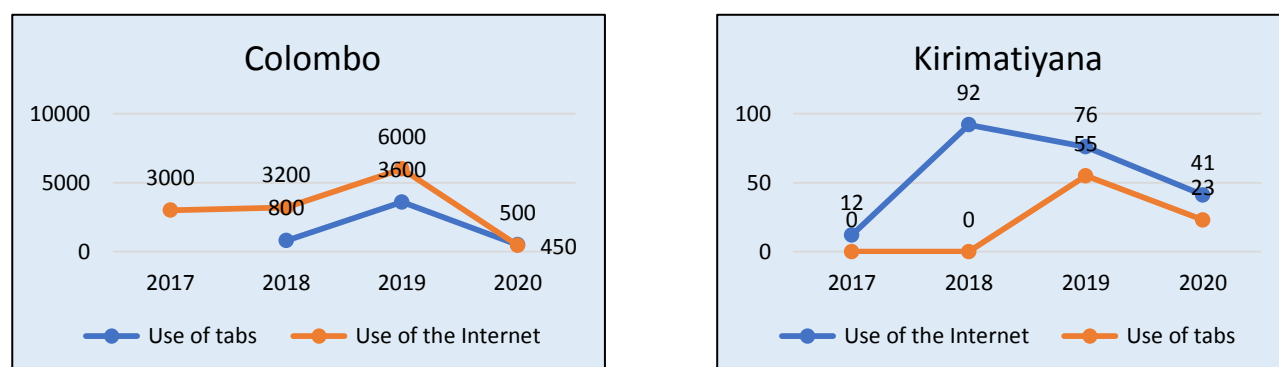
3.3.4 Improved Human Resource with required capacity

Most of the library staff are very enthusiastic about the project and are highly satisfied with the support given by ICTA project team including training facilities. They believe that IT increases productivity of library staff. It relieves professional staff from clerical chores so that they can be fruitfully used for user-oriented library services. The library staff, especially the young staff, finds use of computers interesting and exciting. It has been observed that use of computers would be a motivating factor for several library staff members.

With regards to the capacity building, in the first phase, a three-day residential program of training of trainers (TOT) was implemented with the selected library staff. It included the overview with new concepts and change management aspects. Several basic training workshops related to the KOHA system have also been conducted. All libraries   have conducted TOT for the rest of the library staff and ensured smooth transfer of knowledge. 93% of the library staff mentioned that the quality of training programs was very high.

However, it is also observed that lack of knowledge on overall ICT functions by the library staff is one of the main challenges identified. For example, Library staff has limited understanding on 1) reporting capabilities of KOHA system 2) upgrading to latest version of KOHA 3) server capacity limitation to upload the pictures / book cover etc.

Table 5: Number of library staff using KOHA system each library

Library Name	Total Number of staff including support staff	No of staff using the KOHA
Colombo	123	60
Kirimatiyana	6	4
Opanayaka	5	3
Badulla	7	5
Kunrunegala	18	14
Batticaloa	7	4
Polonnaruwa	9	3

According to the self-perception survey conducted, by the consultant, 60% of staff mentioned that they acquired high or very high level of knowledge on KOHA system and its functionalities whereas 40 % of them expressed their knowledge on KOHA system and its functionalities was average or very low. Similarly, 53 % of the staff mentioned that they had very high or high level of knowledge on reporting capabilities, whereas 47% of them found it was average or very low.

Figure 6: Self-perception on the KOHA system and functionalities
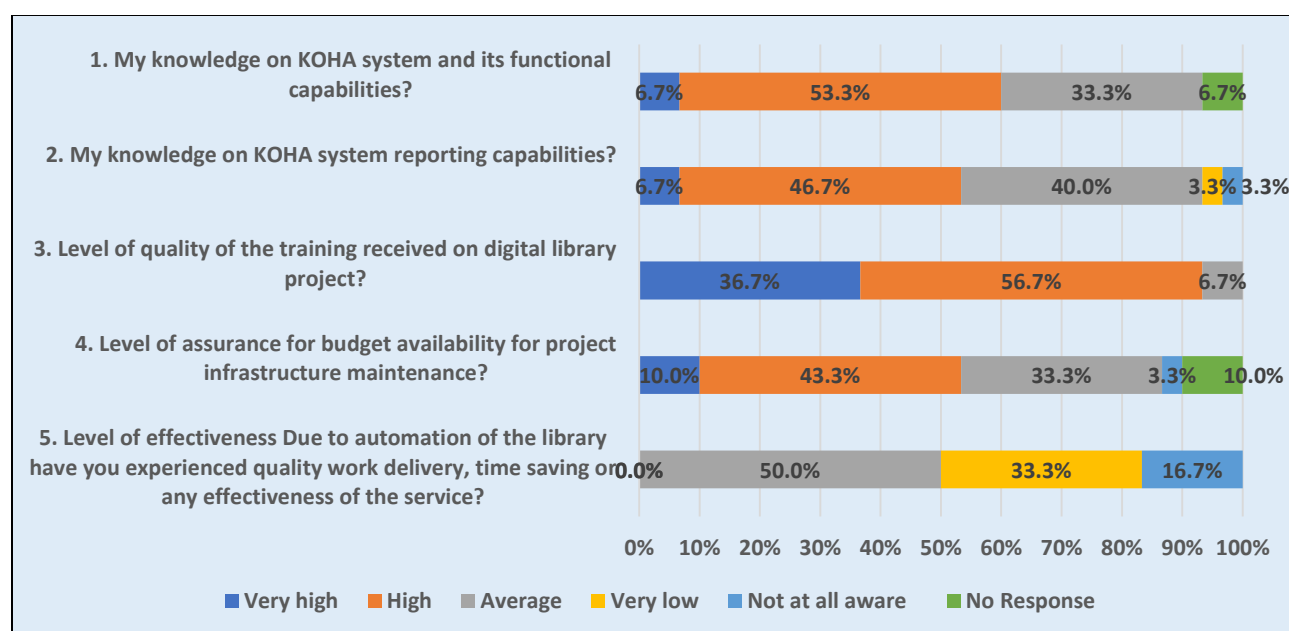
Source: Self-perception survey, March 2021

3.4 Challenges faced during library automation process

1. Maintenance of hardware facilities- The major challenges could be lack of funds available in local government authorities for improvements and hardware maintenance
2. Adaptation time - Colombo, Badulla and Batticolloa Libraries had prior experiences in library digitalization from 2015. Therefore, the progress of automation is high with them compared to the rest of libraries as they had enough time for learning and adaption compared to the other locations.
3. Lack of general ICT knowledge among the library staff to attend   technical problems, upgrading to latest version, etc.
4. Trained library staff transfers and lack of interest of senior staff on automation
5. Digital collection initiative has a larger scope to cover. Therefore, it should be considered as a sub project and need more resources including financial and human resources.
6. It is challenging to manage the national level planning and activities of the project with only one person in ICTA project team holding the responsibility for all field implementation
7. Case report on some service providers are not updated with the required compatibility versions (ex Linux / Debian / Ubuntu) to provide the required service to the library
8. Project design and rollout plan set at the planning stages has been changed due to the not availability of timely funds.

4.0 Recommendations

This section provides the recommendations to improve the ongoing project activities as well as to be considered scaling up of rest of the 18-library digitalization

1. Structured training including on the job trainings are to be conducted to the library staff at regular intervals. This helps library staff to keep themselves updated with the latest developments in the concerned areas. Colombo public library has pioneered the digitalization process and could consider as the benchmark for other locations. Therefore, organizing learning sharing sessions should be mutually beneficial and it should motivate the staff

2. The computers and related hardware should be maintained and /or replaced in a timely manner. The library staff should demand these facilities from their respective local authorities, which is in the basic agreement. Therefore, it is recommended to focus on how the library operates continuously and the methods by which it is funded. It will be difficult to implement if the required funds are not allocated as many public libraries are governed by municipal councils or urban councils. If the required fund is not be allocated for maintenance and replacement of equipment, the implementation of the project would be a challenge.

3. Networking of all public libraries would bring effective and efficient library service to the library staff as well as the readers/ public. Introducing cloud hosting system which integrate all public libraries would be beneficial in catalogue and importantly, for readers to access all required book from another library location.

4. Identity card (ID) printing process should be followed up with respective libraires. Expect Colombo, Batticaloa and Badulla, rest of the 4 locations have not yet printed the IDs for users. This has been a bottleneck for the application of circulation modules. Each location has different reasons for the delay, which includes funding issues, delaying procurements, unavailability of service providers etc.

5. The Library professionals should focus library management functions using the real time data generated from the system. Also, they should follow on the standardized Library guidelines for effective management of resources and sharing of resource. Therefore, all libraries should use standard cataloguing format which will be helpful for resource sharing and copying of catalogues.

6. Web OPAC facility should be provided both within and outside the library and create awareness among the users about the use of library catalogue (OPAC) for the effective utilization of library resources

7. All the libraries should maximize the use of all the basic modules of KOHA. so that libraries will be able to reap the benefits of automation for both staff and the public.

8. Introduction of new/ advance features of library digitalization. This refers to the features such as payment gateway system, online registration system. and a system for returning books that readers have received (RFID system Dropping Box). These features could be more useful in a context like COVID 19 pandemic with restrictive movements. Even when the library closing hours /days, public can access the required services of libraries

9. It is recommended to provide high speed internet facilities as it will always beneficial for libraries in order to deliver efficient service for users. Therefore, it is recommended to provide cloud system with Lanka Government Network (LGN) connectivity for all project locations. Further, it would be good to make negotiation with service providers to enhance daytime data facility, since there is no purpose of nighttime data for the libraries.

10. It is recommended to have clear agreement with stakeholders regarding trained staff, transfers. There has to be transition period to knowledge transfer for the upcoming staff on system capabilities and the project agreements.

Annexures

Annexure 1: Resources Provided to Libraries

Library name	Type of hardware and no	Furniture
Colombo Public Library	- Tower server 01 - Barcode readers 04 - Printers 02 - OPAC stations 05 - Computer tables 10 - TV 04 - Laptops 09 - All in one computer 11 - UPS 11 - Online UPS 01 - Copiers 2 - Tablet computers 18	- Sofa 01 - Computer chairs 10 (Height adjustable) - Tables for kids 6 - Chairs for kids 24 - Tablet tables 2
Badulla Senarath Paranawithana Public Library	- All- in one Desktops -10 - Laptop computer -1 - Line Interactive UPS -10 - Tower Server - 1 - Outline UPS – 1 - Barcode Reader 4 - Sticker Printers - 2 - Multi- function copiers – 2 - Table PC – 7 - Table PC with stylus - 8	- Computer work station Table type i (with table separators) - 3 - Computer work station Table type ii – 6 - OPAC Work station - 2 - Table for Tablet computers – 2 - Chairs for Kids – 16 - Table for Kids – 4 - Height adjustable Stools – 6 - Computers chairs – 9 - Sofa set - 1
Batticaloa Public Library	- <u>Hardware</u> - All- in one Desktops -10 - Laptop computers – 1 - Line Top computers – 1 - Table PC – 7 - Tablet PC with stylus pen – 8 - Online UPS – 1 - Tower Server – 1 - Sticker Printer 2 - Bar Cord Reader – 4 - Muli Function copier with stand (Toshiba 2809 A) 2	- Computer work station Table type i (with Table) – 5 - Computer work station Table type ii – 4 - OPAC Work station - 2 - Table for Tablet Computer - 2 - Chairs for Kids – 16 - Table for Kids – 4 - Height Adjustable stools - 6 - Computer chairs -9 - Sofa set - 1

	▪ Laptop Locks - 11	
Polonnaruwa Public Library	▪ Hardware ▪ All- in one Desktops -10 ▪ Laptop computer -1 ▪ Line Interactive UPS -10 ▪ Tower Server - 1 ▪ Outline UPS – 1 ▪ Barcode Reader 4 ▪ Multi- function copiers – 2 ▪ Table PC – 7 ▪ Table PC with stylus - 8	▪ Furniture ▪ Computer work station Table type i (with table separators) - 5 ▪ Computer work station Table type ii – 4 ▪ OPAC Work station - 2 ▪ Table for Tablet computers – 2 ▪ Chairs for Kids – 16 ▪ Table for Kids – 4 ▪ Height adjustable Stools – 6 ▪ Computers chairs – 9 ▪ Sofa set - 1
Kurunegala Public Library	▪ Laptops 01 ▪ Printers 02 ▪ Servers 01 ▪ Tablet computers 15 ▪ Barcode readers 2 ▪ Computers 10 ▪ Photocopy machines 2	
Kirimetiyana Public Library	▪ Desktop - 8 ▪ Laptop -8 ▪ Tab – 8 ▪ Barcode reader – 4 ▪ Server -1 ▪ Photocopy -2 ▪ OPAC computer - 2	
Opanayake Public Library	▪ Nos. Photocopying Machines with scanning facilities - 2 ▪ Online UPS - 1 ▪ Dell Tower Server - 1 ▪ Nos. All in one computer - 8 ▪ Nos. Lap Top Computers - 2 ▪ Nos. Sticker Printers - 2 ▪ Nos. Barcode Readers - 4 ▪ Nos. Galaxy Tabs (1 Black and 7 white) (currently in use by library users) – 8	▪ Nos. Chairs - 8 ▪ Nos. Tables - 8 ▪ Nos. Kid Tables - 4 ▪ Nos. Kid chairs - 16 ▪ Sofa set - 1 ▪ Nos. OPAC Work Statues (currently in use for referencing purposes by library users) - 2

Annexure 2: Picture of Library Visits

Library staff assisting patron to use the OPAC Kirimatiyana Public Library' Photos– 31st March 31, 2021

Pic 1: Library staff attending to a new user enrollment

Pic 2: User guide prepared for OPAC

Pic 3: Staff assisting users to use the OPAC

Pic 4: Staff assisting users to use the OPAC

Pic 1: Observed the OPAC

Kids Area

Pic 3: Make a space – project

Pic 2: Kids Area

Annexure 3: List of Staff Interviewed

No	Library Name	Name and Position (KII Informants interviewee)	No of staff responded for Perception survey
1	Colombo Public Library	Ms. Varuni Gangabadaarachchi, Chief Librarian	Librarian - 4 Library assistant - 2
		Mr. Prasad Gunasena, Library assistant	
2	Badulla Senarath Paranawithana Public Library	Ms. Harshi Chandima Librarian Mrs.Anushi Udayangani. Libarary Assistant	Librarian - 1 Library assistant - 5
3	Batticaloa Public Library	Mr. Laxman, Library Assistant	librarian -1 Library assistant - 2
4	Polonnaruwa Public Library	Ms.D.A.P. Udayakanthi, Libarian Mr. H.B.Amila Rangana Batagoda, Libarary Assistant	Librarian - 1
5	Kurunegala Public Library	Mrs. Priyanthi Librarian	Librarian - 1 Library assistant - 4
6	Kirimetiyana Public Library	Ms. Rangi, Libraian	Librarian - 1 Library assistant - 2
7	Opanayake Public Library	Ms. K.K.Nandani – Librarian	Librarian - 1 Library assistant - 2
		Mr. Kelum Priyankara – Chairman, Weligepola Pradeshiya Sabha	
		Mr. D.K.Shalika Suranga, Library Assistant	
		Mr. E.A.Uditha Prbath - Library Assistant	
8	National Library	Mr. Aravinda Assistant Director, National Library	