

Total Quality Management Applicability Through Use of ICT in The College Libraries Under Alipurduar District of West Bengal

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Abstract

This paper deals with application of ICT tools and techniques in academic libraries and TQM applicability in the college libraries under Alipurduar District of West Bengal in present scenario. Paper clearly explained the starting of ICT application in libraries and its history among world libraries. Further discusses the included technologies under the umbrella of ICT in libraries environment like computer technology, communication technology, optical technology, multimedia technology etc. Major library components covered under ICT application umbrella has been identified and explained clearly followed by functions affected by the use of ICT and its impact on library. Due to wider application of ICT in libraries, library professionals' role has been changed and this has been discussed elaborately with the conclusion.

Keywords: *ICT Application, Library Automation, ICT Impact on college libraries under Alipurduar District, West Bengal, TQM.*

1. INTRODUCTION

Library is an important component in the educational system which can play very important role in the education of masses. In any college the library is the heart of the academic set-up. It provides information and knowledge to the academic community, comprising of teachers, researchers and students. It helps the college to attain its educational objectives. The traditional meaning of a library is a collection of books and other reading material for use.

A library is regarded as a social institution. Therefore, it is expected to perform certain functions, which varies depending upon the users' demands. A library should provide:

- 1) Lifelong self-education
- 2) Information/documents on all subjects including local, national and international affairs to all serve economic, political and social welfare
- 3) Proper use of leisure
- 4) Advancement of culture
- 5) Preservation of literary heritage for posterity

2. TQM: DEFINITION OF THE TERM

The terms quality and effectiveness are being used to mean the same thing: achieving a quality of service that satisfies to a high degree the information and research needs of faculty, students, and other users; that contributes demonstrably to the success of the institution's educational and developmental goals; and that accomplishes this in an operationally effective manner. When one tries to nail down the implications of this definition, roadblocks quickly appear-effective by what criteria, meeting what level of needs, at what cost, for what purpose? 4

TQM is a way of managing to improve the effectiveness, efficiency, flexibility and competitiveness of organization as a whole and it involves whole organization getting organized and committed to quality in each department, each activity and each person at each level. For the success of TQM, effective training, effective implementation and executive involvement are essential. Quality system, especially in case of service organization like libraries, has three key aspects viz, management responsibility, personal and material resources and quality system structure. Meeting the requirement of the user's both internal and external on time and with full satisfaction. Therefore guiding principles of quality systems are:

- (i) The involvement and commitment of every individual to achieve quality.
- (ii) Quality is built in to the process and it comes through prevention rather than cure.
- (iii) Quality is measurable and it can be measured by non-conformers.
- (iv) To become user driven rather than self focused.
- (v) To concentrate on process rather than be preoccupied with results.
- (vi) Use worker's hands in addition to their hands.
- (vii) Alignment (external and internal)
- (viii) Total involvement, continuous improvement and leadership commitment.
- (ix) TQM is a human relations oriented philosophy that requires fundamental changes in personal management, treating them as ever appreciating asset. 2

3. USE OF ICT FOR COLLEGE LIBRARIES

The use of computer has been steadily increasing in science and technology since the 2nd world war. In the past, volume of information was not as large it is today and the libraries were in the position to organize the information materials through manual operation. But since the 2nd world war, there has been a tremendous output of information, which has been referred to as information explosion. The materials of information both print and non print materials such continue to be produced and use in greater and greater quantities. Information technology means a verity of technological applications in the process of communication of information. With the help of computer it has been used as collective term for the whole spectrum technologies providing the ways and means as to acquire, store, transmit, retrieve and process information. 1

Library has adopted the various technology for improving the total quality and better services to the users such as Computer Technology, Communication Technology, Multimedia Technology, Optical Technology, Networking Technology, Barcode Technology, RFID Technology, Self Circulation Technology, Internet Technology, Digital information Technology, Resource Sharing Technology.

4. GEOGRAPHICAL POSITION OF ALIPURDUAR DISTRICT

25 Jun 2014 West Bengal has got its new district, namely Alipurduar. The district will be the state's 20th district, and will be carved out of Jalpaiguri district for legal and administrative convenience. It consists of Alipurduar municipality, Falakata municipality and six community development blocks: Madarihat–Birpara, Alipurduar–I, Alipurduar–II, Falakata, Kalchini and Kumargram. The six blocks contain 66 gram panchayats and nine census towns are PaschimJitpur, Chechakhata, Alipurduar Railway Junction, BholarDabri, Sobhaganj, Falakata, Jaygaon and Uttar Latabari and Uttar Kamakhyaguri. The district has its headquarters at Alipurduar. 8

5. OBJECTIVES OF THE STUDY

The main objectives of the present study are as follows:

- To explore the available ICT Applications in the college libraries under Alipurduar district;
- To identify the present status of library automation process in the libraries;
- To know the what are the ICT-based services and facilities offered by the libraries'
- To identify the problems faced by the library staff for managing ICT-based library services and suggest some practical ways to overcome these difficulties.

6. REVIEW OF LITERATURE

The increasing expectations of users have challenged libraries to improve their quality of services. Limited by increasingly tighter budgetary restrictions, library managers feel more pressure to fully exploit available resources. Therefore, several libraries and information services have adopted quality management practices in recent years. By adopting quality management, the library's image and service quality can be improved, and librarians can increase productivity while focusing on the user's needs. In the present time quality management is increasingly integrated into library services, following their perceived success in manufacturing industries, with particular emphasis on improving service quality. Libraries have developed numerous programs to fulfill user requirements. In this literature review the researcher has followed many projects under ICT use of TQM applicability in the libraries such as

Chandel, A S and Saraf, Veena(1988) carried out a survey on Measurement and evaluation of library operations and services described that majority of the college libraries do not have use ICT based application for improvement their library services. Most of the college libraries suffering lack of professional staff and inadequate fund for development of their ICT based application for better library services.

Jain, S.L(1996) described the information about application of ICT for TQM in information & library services. In this study mentioned that the present situation most of the libraries do not have initiative to did ICT based application for better user services, some libraries automation and other ICT based application work process is going on.

Raina, Roshan L(1995) presented his study application of ICT based technology very important factor for up gradation of total quality improvement any library and information services. Most of the libraries in that time do not have initiatives to use of ICT based application so, author encouraged to the library professionals to implementation of ICT based application for better user services.

Ravina, R(1995) presented a comparative study of implementation ICT based application and improvement users services.

Shrivastav, S.N. and Verma S.C(1980) studied that use of services and facilities of the Indian university in that time do not implemented ICT based application all the library used manual management for daily work according to library rules and regulations. Author's also described that implementation of new technology and idea is very important for development of library profession and services.

In another study conducted by Tejomurty, A(1987) Studies in academic library. Jaipur, he described most of the academic library in Jaipur suffered lack of professional and technical staff also they do not have available fund for implementation of new technology and idea, so most of the library used manual management.

7. RESEARCH METHODOLOGY

While studying the use of ICT TQM applicability in College central library's system of Alipurduar District the following Research Methods will be applied for consulted to collect the data. This research mainly based on the survey method.

The interview schedule will be prepared to take the interview of the library authorities i.e. librarian /Asst. Librarian and library staff to collect data about the use of ICT TQM policy and process applied and their suggestions for further improvement to the quality. On the basis of the data collection statistical analysis will be made and presented through tables, charts, diagrams etc.

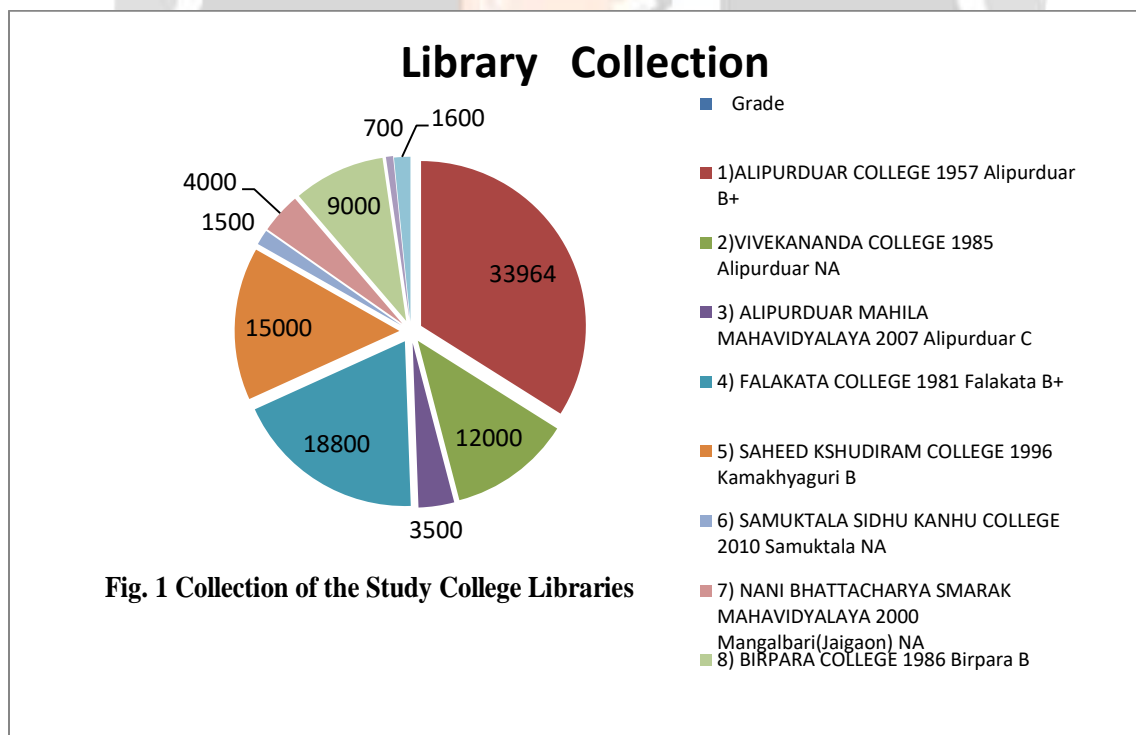
8. SAMPLE

There are 10 General Degree Colleges in Alipurduar District it is established in the different places in the districts. I visited entire College central libraries of Alipurduar District for collection of data for study the TQM use of ICT in College Central Libraries. Each College under Alipurduar District has similar nature and conducting study in various fields of subjects.

The colleges I selected for collection of data for study the TQM use of ICT college central libraries are as follows:

Table 1: NAAC Gradation and Library Collection

Name of the College	Establishment Year	Location	NAAC Grade	Library Collection
1)ALIPURDUAR COLLEGE	1957	Alipurduar	B+	33964
2)VIVEKANANDA COLLEGE	1985	Alipurduar	NA	12000
3) ALIPURDUAR MAHILA MAHAVIDYALAYA	2007	Alipurduar	C	3500
4) FALAKATA COLLEGE	1981	Falakata	B+	18800
5) SAHEED KSHUDIRAM COLLEGE	1996	Kamakhyaguri	B	15000
6) SAMUKTALA SIDHU KANHU COLLEGE	2010	Samuktala	NA	1500
7) NANI BHATTACHARYA SMARAK MAHAVIDYALAYA	2000	Mangalbari(Jaigaon)	NA	4000
8) BIRPARA COLLEGE	1986	Birpara	B	9000
9) PIJUSHKANTI MUKHERJEE MAHAVIDYALAYA	2015	Sonapur	NA	700
10) LILABATI MAHAVIDYALAYA	2013	Jateswar	NA	1600



Library users depends upon the nature of library collections, organization, maintenance and above all, the services and cooperation of the library staffs in making use of library resources. Table 1 Fig. 1 indicates that five college libraries are fulfill better library collection maintenance for the users demands such as Alipurduar College, Alipurduar Vivekananda College, Falakata College, Sahed Kshudiram College, Birpara College comparative to the other college libraries under this study.

Table 2: Services of the College Libraries

Name of the College	Cataloguing	Circulation	Reference	Internet/Online Journals Books	Career Guidance	Reprography
ALIPURDUAR COLLEGE	Yes	Yes	Yes	Yes	Yes	Yes
VIVEKANANDA COLL.	Yes	Yes	Yes	Yes	Nil	Nil
ALIPURDUAR MAHILA COLLEGE	Yes	Yes	Yes	Yes	Nil	Nil
FALAKATA COLLEGE	Yes	Yes	Yes	Yes	Yes	Yes
SAHEED KSHUDIRAM COLLEGE	Yes	Yes	Yes	Yes	Yes	Yes
SAMUKTALA SIDHU KANHU COLLEGE	Nil	Yes	Yes	Nil	Nil	Nil
NANI BHATTACHARYA SMARAK MAHAVIDYAL.	Yes	Yes	Yes	Yes	Nil	Yes
BIRPARA COLLEGE	Yes	Yes	Yes	Yes	Yes	Yes
PIJUSHKANTI MAHAVIDYALAYA	Nil	Yes	Yes	Nil	Nil	Nil
LILABATI MAHAVIDYALAYA	Nil	Yes	Yes	Nil	Nil	Nil

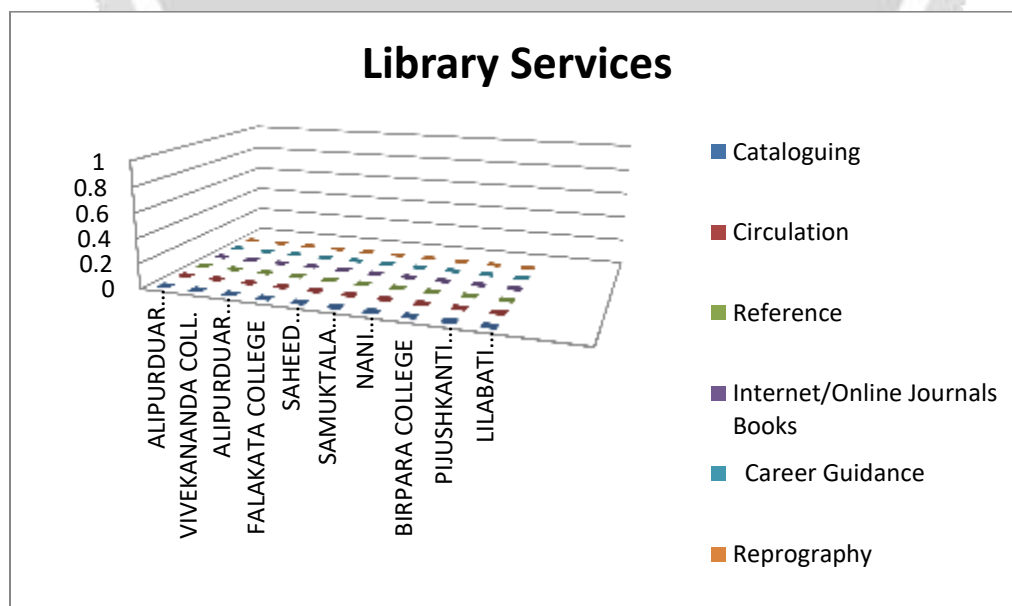


Fig. 2 Library Services of the Study College Libraries

Table 2 Fig. 2 shows that the four college libraries are provided all the services for students need such as Alipurduar College, Falakata College, Sahed Kshudiram College, Birpara College and other college libraries under this study provide services to the users manually, including three college libraries their automation is under process.

Table 3: Manpower of the College Libraries

Name of the College	Professional	Semi Professional	Non Professional
ALIPURDUAR COLLEGE	2	1	4
VIVEKANANDA COLLEGE	1	Nil	1
ALIPURDUAR MAHILA COLLEGE	1	Nil	1
FALAKATA COLLEGE	1	Nil	2
SAHEED KSHUDIRAM COLLEGE	1	Nil	2
SAMUKTALA SIDHU KANHU COLLEGE	1	Nil	Nil
NANI BHATTACHARYA SMARAK MAHAVIDYALAYA	1	Nil	1
BIRPARA COLLEGE	1	Nil	2
PIJUSHKANTI MAHAVIDYALAYA	Nil	Nil	1
LILABATI MAHAVIDYALAYA	1	Nil	1

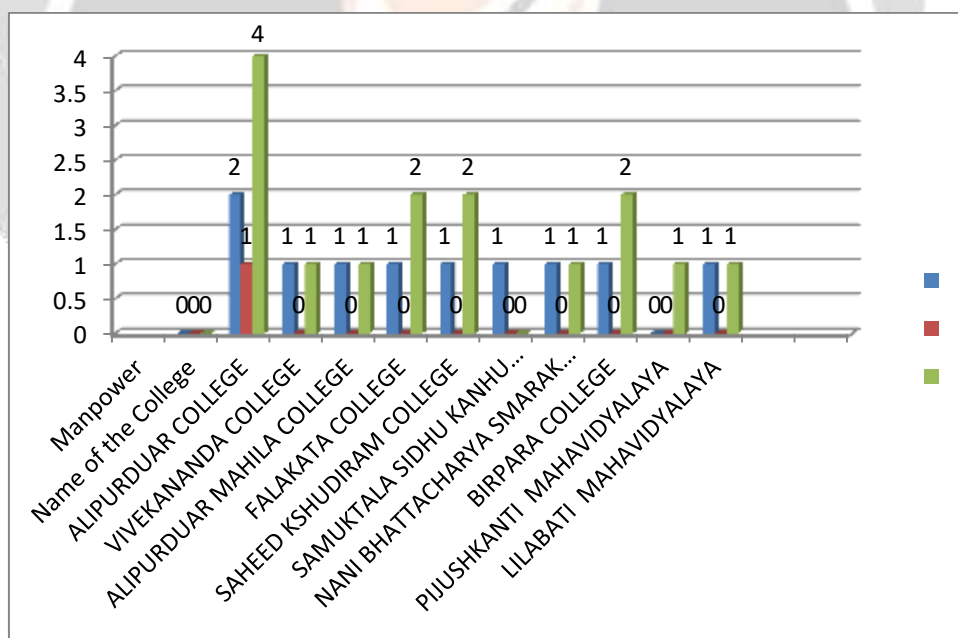


Fig. 3 Manpower of the Study College Libraries

Table 3 Fig. 3 exhibits that only Alipurduar College library have two full time professional staff one semi professional and four non professional staff, other college libraries have one professional staff and semi professional staff, one of the college library don't have any professional staff only non professional staff working in library, so it is indicate that most of the college library suffering lack of skilled trained manpower for better users services.

Table 4: Status of Automation

Name of the College	Fully Computerized	Partial Computerized	Use of Library Software
ALIPURDUAR COLLEGE	Yes	No	E-Granthalaya
VIVEKANANDA COLL.	No	Yes	Soul
ALIPURDUAR MAHILA COLLEGE	No	Yes	College Package
FALAKATA COLLEGE	Yes	No	College Package
SAHEED KSHUDIRAM COLLEGE	Yes	No	College Package
SAMUKTALA SIDHU KANHU COLLEGE	No	No	No
NANI BHATTACHARYA SMARAK MAHAVIDYAL.	No	No	No
BIRPARA COLLEGE	Yes	No	Koha
PIJUSHKANTI MAHAVIDYALAYA	No	No	No
LILABATI MAHAVIDYALAYA	No	No	No

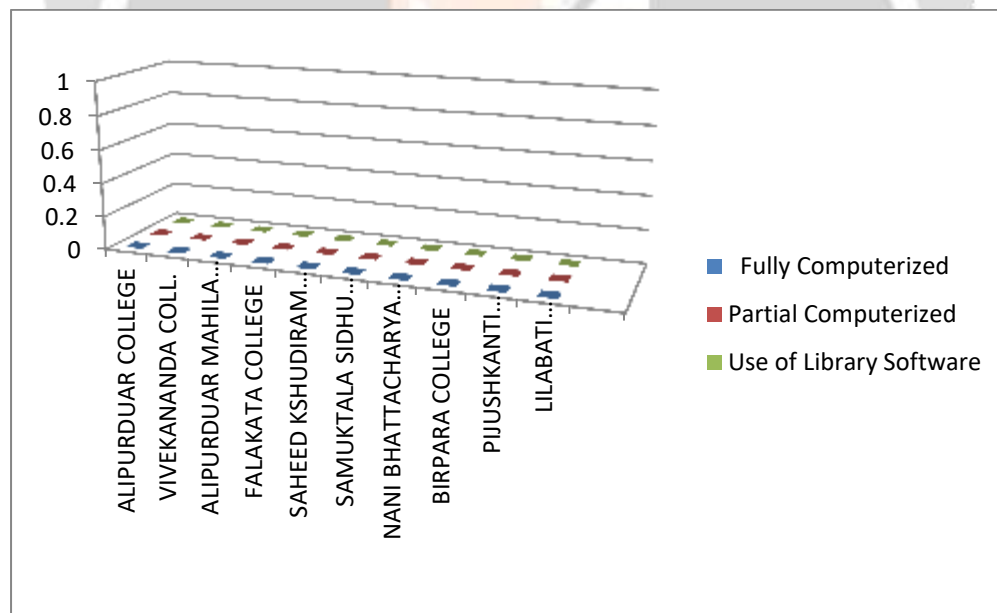


Fig. 4 Status of Automation of the Study College Libraries

Table 4 Fig. 4 elucidates that four college libraries are fully computerized system applied such as Alipurduar College, Falakata College, Sahed Kshudiram College, Birpara College and other college libraries under this study provide services to the users manually, including two college libraries their automation is under process another three college libraries don't have use of computer.

Table. 5 Area of Computerized

Name of the College	Acquisition	Cataloguing	Circulation	Serial Control	OPAC/Lan Based	Administration
ALIPURDUAR COLLEGE	Yes	Yes	Yes	Yes	Lan Based	Yes
VIVEKANANDA COLL.	Yes	Yes	No	No	OPAC	Yes
ALIPURDUAR MAHILA COLLEGE	Yes	Yes	Yes	No	No	No
FALAKATA COLLEGE	Yes	Yes	Yes	No	OPAC	Yes
SAHEED KSHUDIRAM COLLEGE	Yes	Yes	Yes	No	Lan Based	Yes
SAMUKTALA SIDHU KANHU COLLEGE	No	No	No	No	No	No
NANI BHATTACHARYA SMARAK MAHAVIDYAL.	Yes	Yes	Yes	NO	Lan Based	No
BIRPARA COLLEGE	Yes	Yes	Yes	Yes	OPAC	Yes
PIJUSHKANTI MAHAVIDYALAYA	No	No	No	No	No	No
LILABATI MAHAVIDYALAYA	No	No	No	No	No	No

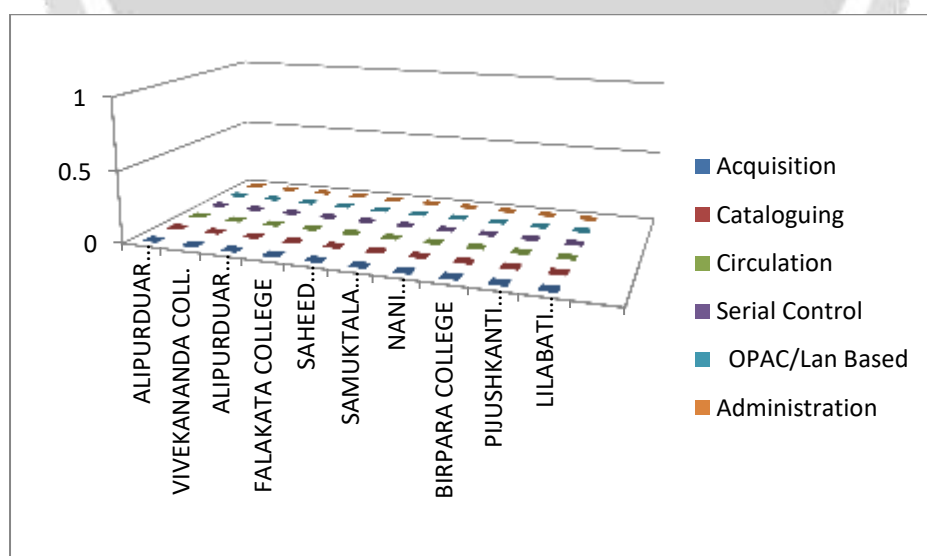


Fig. 5 Area of Computerized of the Study College Libraries

Table 5 Fig. 5 elucidates that Alipurduar College, Falakata College, Sahed Kshudiram College, Birpara College libraries are all the section maintain by computer such as acquisition, cataloguing, circulation, serial control, OPAC/ Lan based and administration, other colleges only cataloguing process is going on and three college libraries don't have using computer.

Table. 6 Use of Technology

Name of the College	Barcode	Self Circulation System	RFID	CC Tv camera	Wi-Fi
ALIPURDUAR COLLEGE	Yes	No	No	Yes	Yes
VIVEKANANDA COLL.	Yes	No	No	Yes	Yes
ALIPURDUAR MAHILA COLLEGE	Yes	No	No	Yes	Yes
FALAKATA COLLEGE	Yes	No	No	Yes	Yes
SAHEED KSHUDIRAM COLLEGE	Yes	No	No	Yes	Yes
SAMUKTALA SIDHU KANHU COLLEGE	No	No	No	No	No
NANI BHATTACHARYA SMARAK MAHAVIDYAL.	Yes	No	No	Yes	Yes
BIRPARA COLLEGE	Yes	No	No	Yes	Yes
PIJUSHKANTI MAHAVIDYALAYA	No	No	No	No	No
LILABATI MAHAVIDYALAYA	No	No	No	No	No

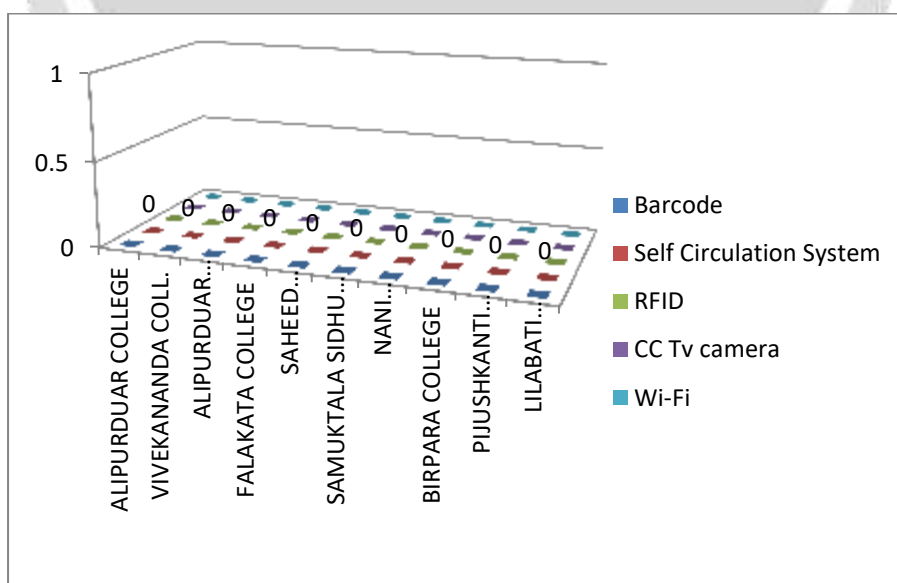


Fig. 6 Technology Used of the Study College Libraries

Table 6 Fig. 6 reveals that IT based use of technology majority of the college libraries using barcode technology installation of CCTV camera and Wi Fi for internet services but self circulation system and RFID technology don't have using.

Table. 7 ICT Based Equipments

Name of the College	Server	Scanner	Barcode Scanner	Printer	LAN	Photo copier Unit
ALIPURDUAR COLLEGE	1	1	2	3	Yes	1
VIVEKANANDA COLL.	1	1	1	1	Yes	No
ALIPURDUAR MAHILA COLLEGE	1	No	No	1	No	No
FALAKATA COLLEGE	1	1	No	1	Yes	1
SAHEED KSHUDIRAM COLLEGE	1	1	No	1	Yes	1
SAMUKTALA SIDHU KANHU COLLEGE	No	No	NO	No	NO	No
NANI BHATTACHARYA SMARAK MAHAVIDYALAYA	1	1	No	1	Yes	Yes
BIRPARA COLLEGE	1	1	1	1	Yes	1
PIJUSHKANTI MAHAVIDYALAYA	No	No	No	No	No	No
LILABATI MAHAVIDYALAYA	No	No	No	No	NO	No

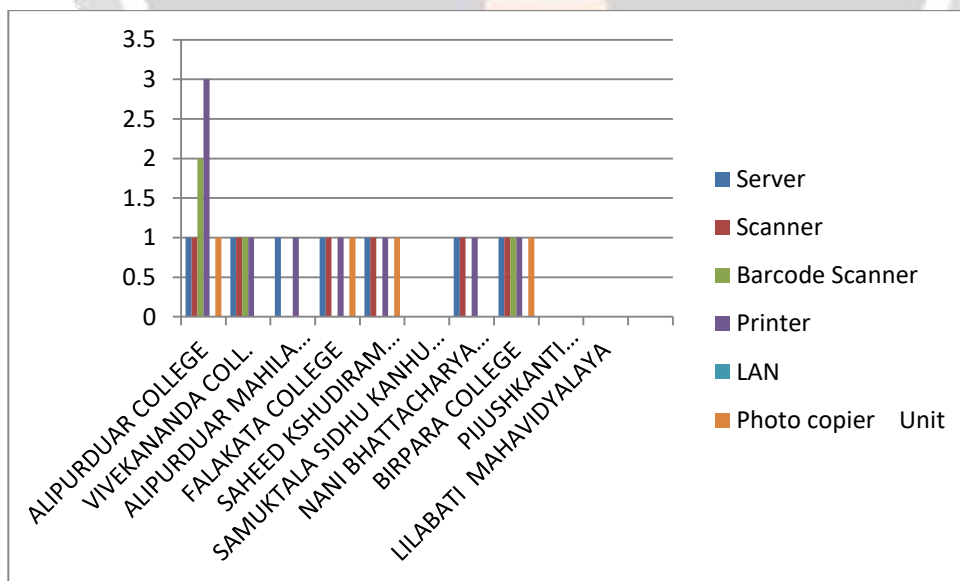


Fig. 7 ICT Based Equipments of the Study College Libraries

Table 7 Fig. 7 portrays that more than ICT based equipments using Alipurduar College library comparative to other college libraries and users are satisfied to library services using more ICT based equipments.

9. PROBLEMS

- Lack of trained manpower
- Lack of adequate fund
- Lack of infrastructure
- Ignorance of higher authority

10. RECOMMENDATIONS

- In-service training programme
- Proper utilization of fund
- Need for centralized database

11. CONCLUSION

The scenario of the library is changing day by day. Introduce of new technologies to manage the library services is a common phenomena. On the other hand the demand and expectations of the user community are also changing day by day. The use of the ICT save the time of the users as well as the staff of the library. Implementation of ICT makes it easy to search the availability of documents with in the library or not. Using library management software in the functioning of library makes it easier to access the location as well as exchange the books within the network. ICT implementation has given a better platform to the library professionals to work in a proper way so that they can serve their user in proper way. In this study I observed use of ICT TQM applicability in the college libraries, Alipurduar College library, Falakata College library, Saheed Kshudiram College library and Birpara College library has implemented better techniques of ICT for users need comparative to other college library. Three new setup colleges I found they don't have any professional staff only one non professional staff are working in the library also they don't have use any ICT based library services other three colleges I found use of partially library automated and application of ICT. Most of the college libraries have suffering lack of trained manpower, lack of adequate fund and lack of infrastructure.

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