CHAPTER- IV
SUMMARY AND FINDINGS

4.1 Summary
Library is a service organisation, which needs a constant effort of transformation for its existence in the fast changing information environment. Changes in academic environment, publication technology and media, information communication technology, ever increasing users and their needs; create pressure on the library management process. Moreover, now-a-days library professionals find it pleasure to evaluate the performance of the library from time to time to know how the library meets its objectives in satisfying the users’ needs. In improving service quality of a library evaluation is a basic need to establish the current status of the library. But, it is a very critical process; no universal and reliable tool has yet been developed for measurement of library and information services or its quality.

The earlier practice of library evaluation gathering vast amount of numerical data on expenditure, books added, journals subscribed, and documents issued and referred etc. Comparing the library services and operations with specified standards to determine to what extent the desire of the users meet based on quantitative data. Now-a-days, the technique of library evaluation have been changed and instead of measuring the quantitative data, qualitative aspects like cleanliness of the library, friendliness of staff, attractiveness of the library building etc. are major concern of measurement. Considering all these things in mind present study has been designed to evaluate the library’s effectiveness based on evaluating the libraries worth comparing with standards which are meant for services to the users i.e. physical facilities, document collections, library staff, library budget, rendered services and library automation; and evaluating the users satisfaction about the different aspect of library services in qualitative measures. So, the finding of the study is accorded here in under.

4.2 Objective 1:
To attempt an evaluative study of provincialised college libraries of Tinsukia and Dibrugarh district regarding their infrastructure facility, collection, library budget, staff, library services and library automation based upon the norms and Standards.

Findings:
Facilities and services

From this study a dismal picture of the college library services of these two districts is revealed. The libraries do not meet the norms and standards as set by UGC or BIS. There is no agency to enforce for implementation of minimum norms and standards in organising library services. Libraries are running with deficient infrastructural facilities, Document collection, library staff, and proper financial management system (Budget). There is no well organise library sections, and services are basically limited to issue-return, reading room service, and reprographic services in 78.95% colleges (Table 3.1.20). There is no technical section and reference section or reference librarian at all libraries. While comparing reading room area with standards it is revealed that not a single college library has minimum required service area for reading rooms (Annexure 3). Similarly, on comparison of stack area it is of course encouraging that 63.16% libraries have space for stack area more than standard requirement only 36.84% do not have (Annexure 4). On the other hand, it is also not encouraging that, 5 (26.32%) libraries used less than 10% floor area used for other activity other than reading room and stack area. It indicates that, library authorities of these colleges are not much interested in organising different services; rather they are using the library as storage place or for reading use of books. Which emphasises that, library services are limited to shelf organisation, circulation service and reading room service in all colleges. Inputting more books might have created this situation without extension of the library building which indicates the passive attitude of the college authority towards the progress of the library. This is one of the biggest challenges in college libraries.

Document Collection

The document collection is the foundation of any library. There must be good collection in the libraries concerned to meet the requirement of the users. There is much variation of library collections from library to library. While comparing the collections against norms and standards we find a very frustrating picture. It has been recommended by Dr. S.R. Ranganathan committee (UGC committee) for universities and college libraries that the colleges with student strength 1000 should have 50,000 volumes of book collections. It means that there should be at least 50 volumes of books against every user of the college (UGC 1965). But we have different picture in this regard where not a single library meets the UGC requirements (Annexure 5). Except 3 libraries all other colleges do not have the number of journals as per the standard requirements;
even 10.53% libraries do not subscribe a single journal. Similarly, annual addition of books is also not satisfactory which ranges from 216 to 1766 volumes only.

**Library Budget**
Regarding budgeting a very frustrated picture is explored i.e. eighty two point two one (84.21%) librarian fail to provide data about their library budget where 63.16% librarian have claimed that the principal of the college prepares the library budget, and 21.06% claimed that there is no budget. From the remaining 15.78% only one librarian exercises the power to prepare library budget. This is a major challenge for the college librarians of the state.

**Library Staff**
Notwithstanding the fact that, “how big is the library building or how large is the financial resources or documentary resources?”, nothing is functional unless there is enough library staff. Library staff is the driving force to manage all the resources and services of a library. Any dearth of library staff will directly impact on the users’ services and result in lowering of effectiveness. On comparison of library staff strength with UGC recommendations based on 500 student enrolment and 10,000 document collection it is revealed that not a single library has minimum staff requirement as per recommendation(Annexure 7). A college is initially started with the librarian and a library bearer where there is no strong role for appointment of additional staff on increase of users and documents. It creates major problem in organising and rendering services. So, library staff are another major challenge in the college libraries of Assam, since appointment and regulation of library staff is under the control of the state government.

**Service to user**
As per the recommendations of UGC all the teaching and non-teaching staff and students of a college are recognised as the primary users and library should ensure services to the primary users. All the libraries are providing services to the user groups as recommended. But, regarding organisation of services all colleges are not at per with the recommendations.

Invariably, all the colleges provide circulation service, reading room service reference service to all categories of users (Annexure 12). Of course, Of course, there is no well organise reference service section but, all they provide incidental reference service to users every day. In case of
reprographic service 21.05% libraries do not have Xerox Machine only 78.5% libraries provide reprographic service to users.

Similarly, eight colleges did not respond to the questions about preparation of catalogue and their use. It indicates that, bibliographic service in the form of organised catalogue is not available, even except 9 (47.36%) libraries (Table 3.2.21.) those who have completed 75-100% databases and given access, others cannot provide OPAC service due to lack of their database or computer. So, services to users are not uniform in all the colleges. Not a single college provides interlibrary loan service and documentation service. However, 13 libraries have N-List connectivity and through this they are providing e-resource based services but, rest of the colleges does not provide. So, all the colleges are not able to provide all services to their users.

Library Automation

Library automation in colleges is recent origin, and getting momentum during the last part of the past decade. There are so many problems associated with library automation i.e. computer infrastructure, software problem, lack of training to the librarian and library staff, electricity and power backup problem, network and connectivity problem, lack of technical expert to establish and manage computer and network infrastructure etc. above all the needed fund and authorities’ initiatives. Regarding library automation it is seen that two colleges (10.53%) till to-day do not have computer and SOUL software and other two colleges (10.53%) fail to procure SOUL software. On the other hand 4 colleges (31.57%) have completed less than 40% of the SOUL database. Indeed, there are some issues for which the librarians fail to meet the most needed works done. These issues need to be identified.

4.3 Objective 2

To attempt a user satisfaction survey to evaluate the performance of the libraries from user’s point of view.

Findings: User’s Satisfaction survey

Using the LibQUAL+ methodology the users’ satisfaction about different factors and dimensions are judged for individual colleges and in aggregate. Performance of different factors (questions
or services) is different for different colleges which are showed in the radar chart summaries. Similarly, there are dimension level variations in every colleges which are represented in the dimension’s summaries and most satisfactory services (adequate services); services needed improvement most (inferior services) as well as most important services (mostly desired services) are also determined and presented accordingly in the chapter “presentation and interpretation”.

**Results of individual Libraries**

On analysing the libraries individually it is revealed that minimally acceptable lowest overall mean score is 3.31 (Sadhiya College) and highest score is 4.04 (Digboi Mahila Mahavidyalaya). Similarly, lowest overall desired mean score is 7.1 (Digboi College) and highest overall desired mean score is 8 (Tengakhat College) (Annexure 15). So, the zone of tolerance ranges from 3.31 (Lowest) to 8 (Highest) overall mean score at 9 point scale. On the other hand, perceive rating for different colleges are also different and lowest overall perceive score mean is 3.78 (Tengakhat College) and highest mean is 6.22 (Doomdooma College). Overall adequacy gaps (through which users satisfaction levels are measured) and superiority gaps (through which users dissatisfaction levels are measured) at dimensions level are all found to be within the zone of tolerance except ‘information control’ dimension of Tengakhat College. This is an alarming situation for improvement of services that the ‘information control dimension’ fail to meet the minimum expectations of the users which is reflected by the red patches in the radar chart and in dimensions summary bar chart. Here the adequacy bar floats outside the zone of tolerance (Chart No. 3.3.17.2).

Similarly, analysing the satisfaction of users at dimensions level it is found that, in 4 libraries (21.05%) ‘Affect of service’ is recognised as the most satisfactory dimension. Similarly, in 2 colleges (10.53%) ‘Information control’, in 8 colleges (42.11%) ‘Library as place’ and in 5 colleges (26.32) ‘Local Questions’ are recognised as most satisfactory services in comparison to other dimensions.

It is observed that 5 libraries (26.32%) are recognised ‘Affect of service’, 8 libraries (42.11%) are recognised ‘Information control’, 3 libraries (15.78%) are recognised ‘Library as place’ and 3
libraries (15.78) are recognised ‘Local questions’ as the dimensions needed improvement at present situation.

Regarding dimension level analysis of most important services it is seen that users want ‘Library as place’ for 8 colleges (42.11%), ‘Locally important services’ (LQ) for 9 colleges (47.37%) and ‘Information control’ for 2 colleges (10.53%) as the most important dimensions. So, as dimension Library as place, locally important services are most important than affect of service and information control at present situation.

**Aggregate result**

The scores of core questions are analysed for aggregate results and the spirals of the radar chart appears to be smoother or less zigzag than radar charts of individual colleges where zone of tolerance ranges from 3.37 to 7.6 and perceive means are floating within it. The adequacy gap scores for the dimensions are within the proximity with the overall mean 1.88. So, there are no much differences in different service dimensions as a whole although different colleges show variations among dimensions.

The best practices (5 most satisfactory services) as identified from the aggregate results are “convenient library hours; library space that inspires study and learning; library staff are consistently courteous; library staff who deals with a caring fashion; library staff who understand the needs of their users”. These services play most important role in satisfaction of users and serves as the key factor for library effectiveness; so, library authorities should put their effort to keep these services up along with improvement of other services. Out of the 5 factors 3 are about the quality trait of library staff, so, role of library staff in college library effectiveness has greater impact than other factors as revealed.

The most weak factors where improvement is inevitable are “making information easily accessible for independent use; easy-to-use access tools that allow the users to find things on their own; convenient access to library collection; readiness to respond to users queries; and the availability of library documents’ need for their work” in comparison to other factors which are identified from all the colleges. These factors are basically related to information control, library
as place and local questions dimensions except readiness to respond to users’ queries. Indeed, these weaknesses are supported by the findings of both the objectives (objective-1 and 2).

However, the study reveals the 5 factors which matter most in library effectiveness are “convenient library hours; library orientation/instruction sessions; library space that inspires study and learning; library should be a quiet space for individual work; they must get library documents what they need for their work.” At present situation of the colleges these services got high priority in meeting the users’ needs and the library authorities should keep an eye focusing on these factors.

On analysing the dimensions level performance of the libraries it is seen that performance of Doomdooma College library is the best for the dimensions “Affect of Service”, “Information Control”, and “Local question” for which this college becomes the best among the colleges under study. A list of libraries that have occupied the top 5 libraries in different dimensions is prepared and these are Doomdooma College, Tinsukia College, DHSK College, MDK Girl’s College, Duliajan College, Tinsukia Commerce College, Dibru College, Women’s College, and Digboi College. General satisfaction survey too reveals Doomdooma College, DHSK College, Duliajan College, Dibru College, MDKG College, Digboi College, Tinsukia Colleges have high scores, while Tengakhat College, Tingkhong College etc. has least scores. Information literacy outcome shows Doomdooma College, DHSK College, MDKG College, Digboi College, and Women’s College have better scores.

Finally, college libraries are ranked on the basis of overall adequacy means and the top 10 libraries are Doomdooma College, Tinsukia College, DHSK College, MDKG College, Digboi College, Duliajan College, Dibru College, Women’s College, Naharkatiya College, DDR College.

4.4 **Objective 3**

*To study the issues and challenges associated with library effectiveness.*

From the collected data about Physical facility, Library Collections, Library staff, Library Budget, Library services and Library automation; it is clear that the libraries in question do not fulfil the norms and standards which create problems for normal functioning of the libraries and
users get deprived of their required services. It is necessary to identify such issues and challenges. For identification of issues and challenges no data collection methods have been applied. Instead of that these are identified by analysing different situations prevailing in different service areas from the data collected for the objective-1.

1. **Issues relating to Physical facilities**

From the above findings, it is obvious that not a single college library has a well organised library building as per the norms and standards. No doubt, there is a college with big building, but it is not organised scientifically to meet the user’s needs. Distribution of space scientifically for different purposes is much important than a big building. This is an issue unsolved and every librarian needs to face. Since, there is no such professional body or agency for approving the design of library buildings, and about other physical facilities, the issue may remain unaddressed.

2. **Issues relating to Document Collections**

Documents are the life line of a library. Enriching a library with judicious collection of books and journals can improve the library effectiveness, but this is also revealed much discouraging from the study. Not a single library could able to reach the required document strength as prescribed by the UGC. In case of journal collection too the scenario is same except Tinsukia Commerce College and Khowang College. Without fund and users’ requirement for documents the librarian simply can’t procure documents for the library. So, librarian may be in a confused state for the prevailing situation to work.

3. **Issues relating to Library staff**

The real energy of a library remains with the library staff. Not a single library has the minimum required library staff as per the recommendation of UGC. There are only three libraries which have 2 professionally qualified staff, and all others with single professional staff. So shortage of library staff is another problem faced by every library. The staff user ratio and document user ratio gives the real picture of the workload to be borne by the library staff in every college. Without necessary staff no library can function properly to provide maximum output, so this is another major issue of the libraries.
4. **Issues relating to Library Finance**

The key to all round development of a library is the financial resources. From the analysis of financial data it is revealed that except three colleges there is no budgeting system in proper form (Table 4.1.10). The librarian remains ignorant about his/her right and responsibilities. This is one of the biggest challenges for the libraries and the library profession where the manager himself does not know the professional rights and responsibilities.

5. **Issues relating to organisation of services**

There is no enough physical infrastructure, no enough document collection, no enough library staff, and no access to library fund how it can be expected that the poor librarian will organise various library services in a better way for the users. This is reflected in organising reference services, in reprographic service, in bibliographic service, documentation service, and library automation; and everywhere except circulation and reading room services. Even reading room service is also not up to the mark due to lack of proper reading room area. So, the offered services in the libraries are not up to the expectation and results in low library effectiveness.

6. **Issues relating to Governance**

All the libraries are governed as per the directives of UGC and the Government of Assam, Department of Education, by a library advisory committee headed by the principal of the college and the librarian as the ex-officio secretary. As a matter of fact, the librarian must have the power to exercise the financial decisions of the library as secretary of the committee in a democratic country like India. But, unfortunately it is revealed that, the librarians of these districts do not have the right to prepare the library budget except two librarians, since others fail to provide data in this regards or they do not know how to exercise the power. There is no mechanism to reach the Governing Body (GB) of the colleges to approach for urgent and important decisions of the college. Neither GB has got any library professional who can rightly place the timely demands of the libraries to take decisions in favour of the libraries, nor the librarians can become a GB member. So, if the principal of the college is wise and kind enough to the library and the user community, library can flourish like anything, other-wise it is a major
hindrance of library development where decisions, demands of libraries may remain unfulfilled or cannot be properly implemented which reflects from the study.

7. Issues relating to Library Automation

Library automation is one of the most important works of a modern librarian. Library automation involves four kinds of problems mainly- the knowledge of library staff for library automation, problems associated with hardware procurement, the software, and above all support from the administration. Some of the senior librarians did not get library automation training and some librarians have technophobia so, they simply do not want to go for library automation. Unless, the college authority supports and provide computers to the library, librarians alone cannot automate the library. There are two colleges without computer hardware and software as well as two are without the automation software. This may happen due to lack of expertise of the librarians too or support from the authority. The libraries of the world are now well equipped with digital libraries, library websites, and working with video conferencing, webcasting etc. in such an environment, if the library automation becomes an issue for the college libraries of Assam then it is very much unfortunate for the colleges and the libraries.

4.5 Testing of hypothesis

Hypothesis -1

“The services, provided by the college libraries of Tinsukia and Dibrugarh District are greater than the minimum expectations of the users’ in achieving the goals of higher education.”

The logic behind the hypothesis is that whether the libraries in question are trying or not to provide services in achieving the goals beyond minimum expectations of users’. This can be tested from the data of users’ minimum acceptable scores and perceived scores. If the perceived score is statistically greater than acceptable, and then we will accept the hypothesis otherwise it will be rejected. To check whether there is a relationship between acceptable score and perceived score of users across different dimension we have to use pair-t test. Null hypothesis: Levels of Acceptable and perceived score are not statistically different.

<table>
<thead>
<tr>
<th>Mean</th>
<th>n</th>
<th>Standard Deviation</th>
<th>Std. Error Mean</th>
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*PS = Perceived Score  
**AS = Acceptable Score

Table No. 4.1. **Paired Samples Statistics**

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<tr>
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<th>Paired Differences</th>
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<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
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<tr>
<td></td>
<td>Mean</td>
<td>Standard</td>
<td>Standard</td>
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<td></td>
<td></td>
<td>Deviation</td>
<td>Error</td>
<td>Confidence</td>
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<td></td>
<td></td>
<td></td>
<td>Interval of the Difference</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td>Upper</td>
<td></td>
</tr>
<tr>
<td>Pair 1 PS_average - AS_average</td>
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<td>0.92700</td>
<td>0.03747</td>
<td>1.9505</td>
<td>1.8037</td>
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</table>

Table No. 4.2. **Paired Samples Test**

From the table it can be observed that mean of Acceptable score (AS) is 3.6925 (SD 0.74858) in comparison to mean Perceived score (PS) of 5.56 (SD 0.86335). The results of the paired t-test showed that the difference in means of AS and PS is statistically significant (p-value: 0.000). So, the null hypothesis is rejected. It is concluded that there is significant difference between the acceptable score mean and the perceived score mean. The perceived score mean is greater than the acceptable score mean and the difference is positive, therefore, the research hypothesis is accepted and conclude that, users are getting satisfied with services provided by the college libraries of Tinsukia and Dibrugarh districts beyond their minimally acceptable service levels in different dimensions.

**Hypothesis - 2**

"There is no difference between the users’ desired level and perceived level of services offered by the College Libraries of Dibrugarh and Tinsukia District, which leads to higher level of user satisfaction and library effectiveness."
This hypothesis is based upon the users’ satisfaction levels about perceived services and their desired services. Whether, the perceived service meets the desired service level of users or both are equal in magnitude then users will feel full satisfaction about the library services. If, perceive service levels are less than the desired service level then there will be less satisfaction and the libraries are not performing better to the extent of full satisfaction of users. This can be tested using the data of users’ perceived scores and desired scores. If the perceive score is statistically equal with the desired scores then we will accept the hypothesis, otherwise, it will be rejected. To check whether there exist relationship between desired score and perceived score of users across different dimension we have to use pair-t test.

Null hypothesis: Levels of desire and perceived score are not statistically different.

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<tr>
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<td>612</td>
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<td>Pair 1 DS_average***</td>
<td>7.4518</td>
<td>612</td>
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<td>0.01975</td>
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***DS = Desired Score
Table No. 4.3. Paired Samples Statistics

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<th>n</th>
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Table No. 4.4. Paired Samples Correlations

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<th>Std. Error Mean</th>
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<th>df</th>
<th>p-value</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 1 PS_average - DS_average</td>
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<td>-1.94310 to -1.82062</td>
<td>-60.37</td>
<td>611</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 4.5. Paired Samples Test

From the table it can be observed that mean of desired score (DS) is 7.45 (SD 0.48868) in comparison to mean Perceived score (PS) of 5.56 (SD 0.86335). The results of the paired t-test showed that the difference in means of DS and PS are statistically significant (p-value: 0.000). So, the null hypothesis is rejected. It can be conclude that there are difference between the desired scores mean and the perceived scores mean. The desired score mean is greater than the
acceptable score mean and the difference is negative; therefore, we will reject the research hypothesis and we can conclude that, the users of the libraries in question are not satisfied to the full extent. There may be certain issues which stand as the barrier to provide library services to its full extent.

Different colleges have different issues, different situations, different users and different service providers, but all these interpretations are given on the basis the situation of the colleges of their own. Accepting the hypothesis-1, it is established that, the college librarians of these colleges are trying their best to provide library services to the users irrespective of the problems they face in their day-to-day service life. It gives the message of credibility of librarians towards their service responsibility.

On the other hand the hypothesis-2 is rejected, and by rejecting the hypothesis it is established that, in spite of all the efforts of the librarians, they fail to fully satisfy the users to the extent of their desire. It indicates that there are certain issues which always stand as the barrier in performing their day-to-day activities, and they fail to meet their expected goals.

4.6 **Answer to the research Questions**

This is the time to accord the answers to the research questions in the light of the findings of the study. The study was initiated with the research questions that are –

1. How effective is the services of the college libraries of Dibrugarh and Tinsukia districts?
2. If effective, to what extent?
3. If not effective, what are the problems behind?
4. Whether all libraries are equally effective?

**Answer to question No.1**

The study explicitly reveals that the services of the college libraries of Dibrugarh and Tinsukia districts are in an average, these are neither effective to the extent of the desire of the users nor these are less than the minimally acceptable level of the users, but in two colleges some factors are rated less than minimally acceptable level.
Answer to question No. 2

Since satisfaction levels of users are considered as the measure of effectiveness of a library and is derived from the adequacy gap, the extent to which the college libraries in question are effective is assumed as the span of the adequacy gap within the zone of tolerance. Here overall zone of tolerance ranges between 3.78 to 7.6 and the perceived rating is 5.66 at 9 point scale. So, difference between 5.66 to 3.78 is 1.88 and to this extent the college libraries are effective at this present situation.

Answer to question No. 3

The full satisfaction of the library users is to the maximum extent is 7.6 and the study explores that users are not fully satisfied to the extent 7.6 at 9 point scale. So, libraries are not effective to give full satisfaction of the users which is because of some problems. These problems are already mentioned above but in short these are insufficient library staff, documents, library space, inefficient financial management, library automation etc. The libraries having severely shortage of these elements are more ineffective than the others as revealed in the study.

Answer to question No. 4

Finally, libraries are ranked arranging adequacy gap mean scores in descending order, which indicates that, all the libraries are not equally effective. It is also seen that there is a great difference between score of the highest ranked Doomdooma College library (2.61) and the lowest ranked score of Tengakhat College Library (0.44). Thus the research questions are answered to the extent of the need of this research work.

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