CHAPTER 7
FINDINGS, CONCLUSIONS, AND SUGGESTIONS FOR FURTHER RESEARCH

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CHAPTER 7

FINDINGS, CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

7.1 FINDINGS

The findings on Performance Measurements of Special and R & D Libraries have been listed as follow:

1. From total 173 attributes of eight groups, 133 (77%) attributes have no significant differences between the proportions of most of the attributes of Performance measurements between the Special and R & D libraries (Refer Table L3.1)

One can see from the table L3.1 that there are only four attributes in which there is a statistically significant difference between the Special and R & D libraries as Mann-Whitney Value is < 0.05, and they are:

- G2Q3: Ongoing Training and Continuing Education
- G3Q1: Library Hours
- G3Q2: Telephonic Approach
- G3Q3: Remote Access

2. On the basis of the analysis for “Assessment Culture in the Libraries” it is concluded that for Special and R & D libraries, there is no culture cultivated to collect the data on the library activity on regular basis. The practice is to collect the data when Authority demands it. Also, none of the libraries is publishing this data online (Refer Table L5, L5.1 and L5.2)

3. The correlation was found between the following PMs.

- Lending documents – User’s satisfaction and Providing documents
- Information searching facilities – Lending documents
- Library facilities – Lending documents and Information searching facilities
- Time for acquiring material – Lending documents and Library facilities
- Time for processing material – Retrieving documents, Lending documents, Acquiring material and Library facilities
- Cataloguing quality – Information searching facilities
- Human resources – Retrieving documents and Promotion of services
- Convenience of location – Library facilities
- Quality of reference services offered – Information searching facilities, Human resources
4. The Correlation found between the following PIs

- Library visits per capita - User Satisfaction
- Required titles availability - Cost per library visit
- In-library use per capita - User satisfaction
- Collection turnover - Shelving accuracy
- Collection turnover - Percentage of required titles in the collection
- Loans per capita - Shelving accuracy
- Speed of Inter-library loan - Collection turnover
- Title catalogue search success rate (Including online) - Cost per library visit
- Facilities use rate - Title catalogue search success rate
- Seat Occupancy rate - Users’ satisfaction
- Seat Occupancy rate - Shelving accuracy
- Median time of material acquisition - Median time for document processing
- Staff moral - Median time for document processing
- Professionally qualified staff - Awareness of service

5. On the basis of the analysis of “Importance of the Library” according to the users, it is concluded that the library maintains its importance for the users for their academic related matter, even today, when internet has a major impact (Refer Figure U6).

6. The table U6.1 shows the strength index for Special and R & D libraries separately. For the users of the Special libraries, wi-fi is the most important attribute and location of the libraries is of the lowest importance, while R & D library users feel that abstracting is the most important for them and children’s corner is of the lowest importance.

7. On the basis the analysis pf “Importance of Library Facilities and Services,” it is concluded that for Special and R & D libraries, children corner is not of much importance as it is in the Public library System (Refer table U6.1).

8. Figure U7 shows that total 65% users are satisfied with the library circulation rights. Maximum suggestion is to issue Reference Books followed by Bound Periodicals, Loose issues of the periodicals; more books to be issued, and they should be issued for more days as shown in above table.

9. Table U7.1 shows that the Special libraries users are most satisfied with newspapers and they are the Least satisfied with E-Books, while R & D Library users are most satisfied with E-Databases and the Least satisfied with Journal Indexing.

10. Table U8.1 shows that users of the Special libraries are rating wi-fi the highest and Audio-visual room the lowest, while users of R & D libraries have rated the Staff courtsey at the highest and Indexing at the lowest rating.
11. Table U9.1 shows that for Cleanliness, MICA, DAIICT, IPR, PRL and NID are at the first rank. For Book display, EDI is at the first rank. For location, ATIRA is at the first rank. For Quietness, CEE and Cadila are at the first rank. For Stack maintenance, CEE, NIOH, and ICRI are at the first rank, for the staff, GIDR is at the first rank and for drinking water, SPI is at the first rank.

12. For each attribute, the First rank holding libraries from Special and R & D libraries are as follows:

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Special</th>
<th>R &amp;D</th>
<th>Attributes</th>
<th>Special</th>
<th>R &amp;D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>MICA</td>
<td>IPR</td>
<td>Internet Access</td>
<td>MICA,</td>
<td>PR,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DAIICT,</td>
<td>PRL</td>
</tr>
<tr>
<td>Location</td>
<td>DAIICT, NID</td>
<td>Cadila</td>
<td>Group Discussion room</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Quietness</td>
<td>MICA, EDI</td>
<td>ATIRA, CEE</td>
<td>Individual carrels</td>
<td>EDI</td>
<td>-</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>EDI</td>
<td>Cadila</td>
<td>Air-conditioning</td>
<td>DAIICT,</td>
<td>Cadila</td>
</tr>
<tr>
<td>Book Collection</td>
<td>DAIICT, NIFT</td>
<td>PRL</td>
<td>Drinking water</td>
<td>DAIICT,</td>
<td>PR,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NID</td>
<td>PRL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ATIRA,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cadila</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NIOH,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GIDR</td>
</tr>
<tr>
<td>Periodicals (print)</td>
<td>EDI</td>
<td>IPR, PRL</td>
<td>Wash-rooms</td>
<td>DAIICT</td>
<td>PRL</td>
</tr>
<tr>
<td>Reference Collection</td>
<td>MICA, DAIIT</td>
<td>PRL, ATIRA, Cadila</td>
<td>Stack-maintenance</td>
<td>EDI</td>
<td>PRL,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CEE</td>
</tr>
<tr>
<td>A/V Collection</td>
<td>NID</td>
<td>PRL</td>
<td>Staff courtesy</td>
<td>MICA,</td>
<td>PR,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DAIICT,</td>
<td>PRL,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EDI, NID,</td>
<td>ATIRA,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GIDR</td>
</tr>
<tr>
<td>A/V room</td>
<td>-</td>
<td>-</td>
<td>Staff cooperation</td>
<td>MICA,</td>
<td>PR,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DAIICT,</td>
<td>PRL,</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>EDI, NID,</td>
<td>ATIRA,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GIDR</td>
</tr>
<tr>
<td>E-Resources</td>
<td>DAIICT</td>
<td>PRL</td>
<td>Security</td>
<td>EDI</td>
<td>Cadila</td>
</tr>
<tr>
<td>Circulation Desk</td>
<td>MICA, NID, DAIICT</td>
<td>PRL, IPR, ATIRA</td>
<td>Furniture</td>
<td>DAIICT,</td>
<td>CRI</td>
</tr>
<tr>
<td>Computers/TT</td>
<td>DAIICT, NIFT</td>
<td>IPR, PRL</td>
<td>Reading area</td>
<td>MICA, NID</td>
<td>PRL</td>
</tr>
</tbody>
</table>
For Audio-visual room and Indexing services, none of the libraries is at first rank. From R & D libraries, it is observed that for Bibliography, Indexing, and Abstracting services, no library is at first rank and from the Special libraries, for Indexing, none of the libraries is at first rank.

13. Majority of the users have responded as having between 50% satisfaction to 100% satisfaction level. Majority of the response is falling on the right side of the middle line (Refer Figure U8 and U1).

14. From an analysis for the “Use of ILL” (Figure U9), it is observed that Inter Library Loan facility services are available with each library, but still this facility is not fully utilized by the users.

15. From an analysis for “Material and collection” (Figure U11 and Figure U12), it is concluded that users found that in their subject area the library has relevant, up-to-date material and also, it is in sufficient quantity. Majority of the users have responded that fictions should be added in the collection. After all, as human beings they need some light reading to refresh their minds and for relaxing.

16. From an analysis of “Library OPAC” (Figure U15), it is observed that almost all the users (98%) are using the OPAC for material search in the library, as out of 15, 12 libraries are automated and three libraries, SPI, ICRI, and ATIRA, are not still automated.

17. From an analysis of “Training in the use of library resources” (Figure U17), it is observed that almost 60% users need training in this area and library orientation is not that strong and effective in some of the libraries.

18. Figure U18 shows that almost 46% users have responded that they are able to find the material from the shelf ‘sometimes’, 52% users have responded as “Always” and only 16% of users have responded as ‘Never’. This shows that stacks are well maintained.

19. From an analysis of “Reason for not locating the material” (Figure U19), it is observed that almost 40% users cannot locate the material and the reason is misfiling of the books on the shelves. On talking to the librarians, some of them revealed that the reason for this was that because of open access system some students are hiding the material which is very important for their study/assignments. This shows that stacks are not well-maintained, which contradicts the result found from figure U18.

20. From an analysis of “Use of Library Web page” (Figure U20), it is concluded that in some of the libraries, library web page is not that popular among the users and they found that it is not easy to use. Also, one can say that library
orientation is somewhat not effective in some of the libraries. Figure U22 shows
that in the Special libraries 14% users suggest that it needs improvement, 4% feel it has to be changed, and 53% wants something to be added in the web page. While in R & D libraries, 9% users suggest that it needs to be improved, 0.7% feel it has to be changed, and 19% want something to be added. Majority of the users have suggested adding an alert notice for overdue and online renewal facilities besides recommending a change in style or layout of the web page.

21. From an analysis for “Staff Manner” (Figure U23), it is concluded that each of the libraries has well qualified staff members, so the users found that the staff members are responding in a courteous manner and professionally.

22. From an analysis of Use of Library” (Tables U17 and U17.1), it is concluded that the library is not used much by the users for internet access. Most of the institutes have the Computer Labs separately for this purpose. Also, few libraries have a wi-fi system across the campus.

23. Considering the Special and R & D libraries separately, table U18.1 shows that the Special and R & D libraries both are more often visited for E-Books as a first priority. The ‘less often visited’ is Nil for both the Special and R & D libraries.

24. Figure U24 shows that 30% users are ‘highly satisfied’ with the library hours and 50% users are ‘satisfied’ with library hours. 15% users are ‘less satisfied’ and only 5% users are ‘dissatisfied’ with library hours. Based on users’ suggestions for the library timings, it is observed that users of the design institutes – like NID, NIFT, and CEPT suggest that the library should remain open even after 10.00 pm to midnight and even 24x7. The reason is that they are over occupied during the day in their classes and submissions.

25. Table U20.1 shows that library is used almost by more than 70% users during holidays and weekends for Reference (77%), Issue-return (87%), New arrival checking (85%), Photocopy (75%), and E-mail/Surfing (88%).

26. Table U21 shows that majority responses are between 0 to 3. This is also shown graphically in figure U27, which clearly shows that all the responses are on the right side between 0 to +3. It indicates that majority of the users feel that the library meets their expectations.

First rank among each attribute in the library (Refer Table U9 and U9.1)

27. The table U9.1 clearly shows that for Cleanliness, MICA, DAIICT, IPR, PRL, and NID are at the first rank. For Book display, EDI is at the first rank. For location, ATIRA is at the first rank. For Quietness, CEE and Cadila are at the first rank. For Stack maintenance, CEE, NIOH, and ICRI are at the first rank, for
staff courtesy, GIDR is at the first rank. For drinking water, SPI is at the first rank.

28. Each attribute wise 1st Library (Refer Table U10)

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Special</th>
<th>R &amp; D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>MICA</td>
<td>IPR</td>
</tr>
<tr>
<td>Location</td>
<td>DAIICT, NID</td>
<td>Cadilla</td>
</tr>
<tr>
<td>Quietness</td>
<td>MICA, EDI</td>
<td>ATIRA, CEE</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>EDI</td>
<td>Cadilla</td>
</tr>
<tr>
<td>Book Collection</td>
<td>DAIICT, NIFT</td>
<td>PRL</td>
</tr>
<tr>
<td>Periodicals (print)</td>
<td>EDI</td>
<td>IPR, PRL</td>
</tr>
<tr>
<td>Reference Collection</td>
<td>MICA, DAIIT</td>
<td>PRL, ATIRA, Cadila</td>
</tr>
<tr>
<td>A/V Collection</td>
<td>NID</td>
<td>PRL</td>
</tr>
<tr>
<td>A/V room</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E-Resources</td>
<td>DAIICT</td>
<td>PRL</td>
</tr>
<tr>
<td>Circulation Desk</td>
<td>MICA, NID, DAIICT</td>
<td>PRL, IPR, ATIRA</td>
</tr>
<tr>
<td>Computers/IT</td>
<td>DAIICT, NIFT</td>
<td>IPR, PRL</td>
</tr>
<tr>
<td>Internet Access</td>
<td>MICA, DAIICT, EDI</td>
<td>IPR, PRL</td>
</tr>
<tr>
<td>Group Discussion room</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Individual carrels</td>
<td>EDI</td>
<td>-</td>
</tr>
<tr>
<td>Air-conditioning</td>
<td>DAIICT, NID</td>
<td>Cadila</td>
</tr>
<tr>
<td>Drinking water</td>
<td>DAIICT, NID</td>
<td>IPR, PRL, ATIRA, Cadila, NIOH, GIDR</td>
</tr>
<tr>
<td>Wash-rooms</td>
<td>DAIICT</td>
<td>PRL</td>
</tr>
<tr>
<td>Stack-maintenance</td>
<td>EDI</td>
<td>IPR, PRL, CEE</td>
</tr>
<tr>
<td>Staff courtesy</td>
<td>MICA, DAIICT, EDI, NID, CEPT</td>
<td>IPR, PRL, ATIRA, GIDR</td>
</tr>
<tr>
<td>Staff cooperation</td>
<td>MICA, DAIICT, EDI, CEPT</td>
<td>IPR, PRL, Cadila, ATIRA, GIDR</td>
</tr>
<tr>
<td>Security</td>
<td>EDI</td>
<td>Cadila</td>
</tr>
<tr>
<td>Furniture</td>
<td>DAIICT, NID</td>
<td>ICRI</td>
</tr>
<tr>
<td>Reading area</td>
<td>MICA, NID</td>
<td>PRL</td>
</tr>
<tr>
<td>Book Display</td>
<td>EDI</td>
<td>IPR</td>
</tr>
<tr>
<td>Xerox facilities</td>
<td>DAIICT</td>
<td>IPR, CEE</td>
</tr>
<tr>
<td>Bibliographic services</td>
<td>MICA</td>
<td>-</td>
</tr>
<tr>
<td>Indexing services</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Abstracting services</td>
<td>NIFT</td>
<td>-</td>
</tr>
<tr>
<td>CAS</td>
<td>MICA, DAIICT, EDI, NID, NIFT, CEPT</td>
<td>IPR, PRL, CEE</td>
</tr>
<tr>
<td>Library Guides/Signage</td>
<td>EDI</td>
<td>-</td>
</tr>
<tr>
<td>Library orientation</td>
<td>MICA</td>
<td>Cadila</td>
</tr>
<tr>
<td>Lighting</td>
<td>MICA, NID</td>
<td>PRL, ATIRA, NIOH, ICRI, NIOH, GIDR</td>
</tr>
</tbody>
</table>

387
The table U10.1 gives the first rank of each quality (attribute) library wise, grouping Special and R & D libraries. For environment, from Special libraries, MICA is at first rank and from R & D libraries, IPR is at the first rank. For other attributes, the result is self-explanatory in above table.

For Audio-visual room and Indexing services, none of the libraries is at first rank. From R & D libraries, it is observed that for Bibliography, Indexing, and Abstracting services, no library is at first rank and from the Special libraries, for Indexing, none of the libraries is at first rank.

29. **Cluster Analysis for Ranking of the Libraries**

Table U10.2 Cluster 1 - Physical facilities and environment shows that, DAIICT Library is at the First Rank and GIDR Library is at the last rank.

Table U10.3 Cluster 2 - Library collection, shows that PRL Library is at the First Rank and SPI library is at the last rank.

Table U10.4 Cluster 3 – IT Facilities shows that, MICA Library is at the First Rank and CEPT Library is at the last rank. ATIRA, SPI and ICRI have 0 CV, hence they have not been considered for ranking.

Table U10.5 Cluster 4 – Library Services, shows that MICA Library is at the First Rank and SPI library is at the last rank.

Table U10.6 Cluster 5 – Library Staff, shows that NID Library is at the First Rank and GIDR library is at the last rank.

7.1.1 **FINDINGS OF Q ANALYSIS (LIBRARIANS’ DATA)**

1. It is clear from the Table 37 and Figure L8 that from the total 42 qualities (Governance, Policy & Planning Leadership and Funding & Financial Procedures), out of Special library group, maximum qualities are available with DAIICT and MICA library, i.e. 40Q, and CEPT library has minimum qualities, i.e. 28Q. Out of the R & D library group, IPR has maximum 38Q qualities and SPI library has the least qualities, i.e. 16Q.

2. It is clear from the Table L38 and Figure L9 that from the total 25 qualities (Personnel), out of Special library group, the library of MICA has maximum qualities, i.e. 24Q; and the least qualities are available with the CEPT Library, i.e. 17Q. Out of the R & D library group, IPR library has maximum qualities, i.e. 22Q, and Cadila library has the least qualities available, i.e. 8Q.
3. It is clear from the Table L39 and Figure L10 that from 20 qualities (Library Access), out of the Special library group, the maximum qualities of the libraries are available with library L4 (MICA) and L5 (NID), i.e. 16Q; and the least qualities are available with CEPT, EDI, and NIFT, i.e. 13Q. Out of the R & D library group, NIOH and PRL libraries have maximum qualities, i.e 15Q, and SPI library has the least qualities, i.e. 6Q.

4. It is clear from the Table L40 and figure L11 that from the total 34 qualities (Materials and Collections), out of the Special library group, the maximum qualities are available with the MICA library i.e 34Q; and the least qualities are available with CEPT library, i.e 18Q. Out of the R & D library group, maximum qualities are available with CEE and IPR libraries, i.e. 26Q, and the GIDR library and SPI library have the least qualities available with them, i.e 18Q.

5. It is clear from the Table L41 and Figure L12 that from the total 21 qualities (Different roles of the libraries), out of Special library group, maximum qualities are available with NIFT, i.e 21Q and the CEPT library has the least qualities, i.e.7Q. Out of R & D library group the IPR library has maximum qualities ,i.e 19Q, and the SPI library has the least qualities available, i.e. 10Q.

6. It is clear from the Table L42 and Figure L13 that from the total 19 qualities (Facilities), out of Special library group, maximum qualities are available with DAIICT library i.e 15Q and the least qualities are available with CEPT library, i.e 9Q. Out of R & D library group, IPR library has the maximum qualities 15Q, and the least qualities are available with ICRI and SPI libraries, i.e. 5Q.

7. It is clear from the Table L43 and Figure L14 from the total 4 qualities of Cooperation and Resource sharing), out of Special library group maximum qualities are available with EDI, MICA and NID , i.e. 3Q. and all others are at 2Q. Out of the R & D library group, PRL and IPR library has the maximum qualities; i.e.4Q and SPI and NIOH libraries have the least qualities.

8. Table L44 and Figure L15 show that from the total 8 qualities (Publicity Methods), out of Special library group, DAIICT and MICA library have the maximum qualities, i.e 8Q, and the NIFT library has the minimum qualities. i.e 5Q. Out of the R & D library group, GIDR library has the maximum qualities; i.e. 7Q and CEE library has the least qualities; i.e. 4Q.

10. Table L45.1 and figure L17 show that out of total 173 qualities, from Special libraries, the maximum number of total qualities (Max. TQ) are available in the library of MICA which is 153Q with 88% and the minimum number of total qualities (Min. TQ) are available in the CEPT library which is 107Q with 62%.

Out of Total 173 Qualities from R & D Libraries, the maximum number of total qualities (Max. TQ) are available in the PRL Library has 132Q with 76% and
the minimum number of total qualities (Mm. TQ) are available in the Library
Cadila with 73Q with 42%.

11. Groupwise Library ranking is as follows:

For Group 1: Governance, Leadership, Policy and Funding & Fiscal procedures
Libraries of DAIICT and MICA are at 1st rank, IPR at 2nd rank, PRL is at 3rd rank,
NID is at 4th rank, EDI and NIFT are at 5th rank, CEE is at 6th rank, CEPT is at 7th
rank, NIOH is at 8th rank, ATIRA is at 9th rank, GIDR is at 10th rank, ICRI is at 11th
rank, SPI is at 12th rank, and Cadila is at 13th rank.

For Group 2: Personnel
Library of MICA is at 1st rank, DAIICT and IPR are at 2nd rank, PRL is at 3rd rank,
CEPT, EDI, and CEE are at 4th rank, NIFT, ATIRA, NIOH, and SPI are at 5th rank,
NID is at 6th rank, GIDR and ICRI are at 7th rank, and Cadila is at 8th rank.

For Group 3: Library Access
Library of DAIICT is at 1st rank, MICA and NID are at 2nd rank, NIOH and PRL are
at 3rd rank, CEPT, EDI, NIFT, GIDR, and IPR are at 4th rank, CEE is at 5th rank,
ATIRA is at 6th rank, Cadila and ICRI are at 7th rank, and SPI is at 8th rank.

For Group 4: Materials and collections
Library of MICA is at 1st rank, DAIICT is at 2nd rank, NID is at 3rd rank, CEE and
PRL are at 4th rank, NIFT is at 5th rank, EDI and IPR are at 6th rank, NIOH is at 7th
rank, ICRI is at 8th rank and ATIRA, Cadila, CEPT, GIDR, and SPI are at 9th rank.

For Group 5: Different roles of the library
Library of NIFT is at 1st rank, MICA and NID are at 2nd rank, DAIICT is at 3rd rank,
EDI, ATIRA, CEE, and PRL are at 4th rank, IPR is at 5th rank, CEPT and GIDR at
6th rank, NIOH is at 7th rank, and Cadila, ICRI, and SPI are at 8th Rank.

For Group 6: Library Facilities
Library of DAIICT is at 1st rank, NID is at 2nd rank, EDI, IPR, and PRL are at 3rd
rank, MIC and NIFT are at 4th Rank, ATIA is at 5th rank, GIDR is at 6th rank, ICRI
and NIOH are at 7th rank, Cadila, CEE, and SPI are at 8th rank, and CEPT is at 9th
rank.

For Group 7: Cooperation and Resource Sharing
Library of PRL is at 1st rank, CEPT, DAIICT, EDI, MICA, Cadila, and ICRI are at
2nd rank, NID, NIFT, ATIRA, CEE, GIDR, IPR, NIOH, and SPI are at 3rd rank.
For Group 8: Publicity Methods
Libraries of DAIICT, MICA, and NID are at 1st rank, CEPT, EDI, and GIDR at 2nd rank, Cadila, ICRI, IPR, and PRL are at 3rd rank, NIFT, NIOH, SPI, ATIRA, and CEE are at 5th rank.

7.1.2 Hypotheses Testing

Hypothesis 1: (True)

“There are not much significant differences between the proportion of majority of the attributes of Performance measurements between the Special and R & D libraries.”

The statistically significant analysis is performed on the attributes of the following eight groups by using Pearson Chi-square and Mann-Whitney Test.

- Group 1: Governance, Policy and Planning, Leadership, Funding & Fiscal procedures
- Group 2: Personnel
- Group 3: Library Access
- Group 4: Materials and Collections
- Group 5: Different Roles of the Library
- Group 6: Facilities easy to identify
- Group 7: Cooperation and Resource Sharing
- Group 8: Publicity methods

The above hypothesis is tested from Tables L1 to L33 and it is proved from this analysis. Table L33.1 is the summary of tables L1 to L33, which shows that from total 173 attributes of eight groups; 133 (77%) attributes have no significant differences between the proportion of most of the attributes of Performance measurements between the Special and R & D libraries.

One can see from the above table L33.1 that there are only four attributes in which there is a statistically significant difference between the Special and R & D libraries, they are. G2Q3 (Ongoing Training and Continuing education), G3Q1 (Library hours), G3Q2 (Telephonic approach), and G3Q3 (Remote Access), which have Mann-Whitney values < 0.05.

For the following individual attributes, the Fisher value is < 0.05, but Mann-Whitney value is > 0.05 therefore, the result of Fisher Value is ignored for the following attributes.

1. G1Q2.3 (A): The library has, within the past 5 years, conducted a user survey or used other needs assessment techniques to obtain input. (Fisher value is 0.044, Mann-Whitney is 0.065)
2. G4Q3 (A): Audio cassettes (Fisher Value 0.044, Mann Whitney is 0.146)
3. G4Q4 (B): The library completes a fill rate study that includes browsers’ fill rate at least every other year. (Fisher value is 0.044, Mann-Whitney is 0.490)

4. G5Q1 (A3) : Job information and skills centre. (Fisher value is 0.044, Mann-Whitney is 1.000)

**Hypothesis 2 (True)**

"Most of the libraries are not using any national or international standards for the library statistics"

All the libraries have responded that they are not using any national or international standards for the library statistics (Refer Figure L8)

**Hypothesis 3 (True)**

"Librarians rank ‘User satisfaction’ as first item among the most applicable performance measurements."

The lowest CV is for ‘Users’ satisfaction’ in Special and R & D libraries. Therefore it is the most applicable PM according to the response of the librarians (Refer table L34).

**Hypothesis 4 (True)**

"Most of the libraries do not have a written policy for Disaster plan and staff development."

80% libraries do not have Disaster Plan policy (Refer table L37.1) and 73% libraries do not have a staff development policy (Refer table L37.2).

**Hypothesis 5: (True)**

"To raise the profile of the library services among the users, different publicity methods are used by the librarians."

All the Publicity methods are at a level above or equal to 60%, except ‘Participation in user events, fairs etc (Refer Table L44.1).

**Hypothesis 6 (True)**

"Majority of the users are satisfied with the library facilities and services"

The highest value is above median which implies that majority of the users are satisfied with the library. Majority of the users have responded showing between 50% to 100% satisfaction (Refer Figure U8 and U8.1). It also corresponds with the expectation level of the users, shown in Table U21 and figure U27. Majority of the users have responded that the library meets their expectation level between 0 to +3.
7.2 CONCLUSIONS

The study is based on the analysis of the data received through questionnaire with the help of the Tables, Graphs and Q-analysis. The findings reveal that the performance measurement standards are gaining importance among the libraries.

The libraries collect the statistics of the different activities, but not as a regular practice. It is normally done as and when needed. It is seen that libraries also do not follow any standards for performance measurements.

Librarians can play a pivotal role in the planning and rethinking of new performance measurement techniques for the libraries and their services. It is felt that the staff members need training in this area. Such literacy will increase the accountability of the staff members. Librarians may adopt any Library Performance Measurement and Quality Management System (such as SERVQAL, EQUINOX, LibQual+, LibStatCAT, etc.) to manage the statistical data and analysis and start making the move from performance measurement to performance management.

But to test these new indicators in live operational environments, libraries need to be ready and cooperate, if at all any professional body like All India Library Association (ALA), University Grants Commission (UGC), Bureau of Indian Standards (BIS), Information and Library Network (INFLIBNET), etc. takes an initiative to make the Standards for Libraries in India in this new age of IT or to consider a certification process, for the libraries. Additionally, the possibility of officially acknowledging the compliance of library software with such Indian standards for libraries, or the opportunity to certify quality programmes against such standards similar to ISO 11620 by recognized auditing bodies, may certainly be a powerful tool for libraries. If such an idea is taken up by library software vendors or policy makers, it would allow libraries to better defend their own assessment system of reference and not be required to meet only external, and sometimes ill-adapted, performance criteria.

Finally, some key points are from the Researcher’s experience are:

1. It is essential to engage staff in the performance process and to ensure that findings are to be taken for further action rather than simply being noted;
2. Whichever methodologies are adopted, the important is that the process is not just to gather information, but to improve performance;
3. People stop responding to surveys if they do not lead to change and improvement;
4. Performance measurement should be a tool for upward strategic engagement and advocacy within the institution; and
5. Performance related surveys, particularly for the Users should not be done too often and also it should not be lengthy that because of 'survey fatigue' response rates drop rapidly.

7.3 SUGGESTIONS FOR FURTHER RESEARCH

In this study, an attempt was made to know mainly whether performance measurement procedures exist in the libraries or not from the response of the librarians. This is a qualitative research; and in this, the focus groups (here librarians and users of the libraries,) offer the researcher a source to gather information about the participants' (here, Librarians and users) perceptions, experiences, and attitudes which provides a basis from which a suitable model for performance measurements for the libraries of India may be built up as further research. Further research may be undertaken to know how the libraries differ quantitatively. The ideas may be translated into numbers as per performance measurement methods described by any of the International Standards. Further research is proposed for:

- Designing of a model for performance measurements on the basis of performance indicators which are suitable to the libraries of India.
- A comparative study of performance measurement practices to be studied in similar kind of libraries in India
- A comparative study of performance measurement practices to be studied between two countries
- A suitable flow-chart to be proposed for making software to measure performance of the libraries in India by comparing such other available software.
- Gathering evidence on the changing environment of Information and marketing in the information era to know what impact electronic library services have on their users and to adopt new benchmarking criteria to see whether it provides a real and lasting benefit to libraries.