6.1 OVERVIEW

On the basis of data analysis certain findings are drawn and are presented. The data was collected from aforesaid university libraries of Punjab, Haryana and Chandigarh. All the four university libraries are having rich manuscripts collection but efforts undertaken to preserve the priceless collection vary from library to library. It can be inferred both by comparing the data in the tables and figures and observing the same at actual settings GNDU is putting maximum efforts, followed by PUP, followed by PUC and KUK to safeguard its manuscripts collection and to disseminate the information regarding the collection.

6.2 FINDINGS

The following findings have been drawn from the study:

- The total budget increase in PUC, PUP, GNDU and KUK was by 7.69%, 7.46%, 1.76% and 2.57% in 2008-09, which further increased in subsequent year by 3.91%, 1.8%, 3.98% and 3.56% in PUC, PUP, GNDU and KUK respectively. The total budget of PUC, PUP, GNDU and KUK increased by 25.67%, 28.43%, 20.17% and 4.62% during 2010-11 in comparison to previous year.

- The amount allocated for books increased by 3.67% in PUP, where as it was decreased by 4.76% and 6.66% in GNDU and KUK respectively in 2008-09, which further increased in subsequent year by 6.38% and 16% in PUP and KUK respectively, whereas there was no change in budgetary allocation for books in GNDU with respect to 2008-09. Budget for books during 2010-11 further increased by 6.66% and 7.69% in PUP and KUK respectively, whereas it remained same in
GNDU in comparison to previous year. The budget allocated for books in PUC remained the same during 2007-11.

- The budgetary allocation for periodicals in PUC, PUP, GNDU and KUK remained the same from 2007-08 to 2009-10. The budget for periodicals increased by 5.26%, 8.88% and 2.4% in PUC, PUP and GNDU whereas, it neither increased nor decreased in KUK during 2010-11 with respect to 2009-10.

- KUK has got maximum budget for the manuscripts, followed by GNDU, followed by PUP, whereas, PUC has no budget for manuscripts.

- The budget for manuscripts decreased by 22.8%, 57.4% and 50% in 2008-09, 2009-10 and 2010-11 respectively in KUK, whereas, the budget remained unchanged in PUP and GNDU from 2007-08 to 2010-11.

- GNDU incurred maximum expenditure on the manuscripts acquisition in its first decade. PUC and KUK spent maximum on manuscripts acquisition in their respective second decade, whereas, PUP spent negligible amount on manuscripts acquisition in its third decade only.

- The books collection increase in PUC, PUP, GNDU and KUK was 1.26%, 1.82%, 3.99% and 0.79% respectively in 2008-09 with respect to 2007-08. It further increased in subsequent year by 7.04% in KUK, followed by GNDU, PUP, and PUC by 3.56%, 2.44%, and 2.41% respectively. During 2010-11, PUC, PUP, GNDU and KUK collection further increased by 0.41%, 4.31%, 0.85 % and 0.4% respectively as compare to previous year.

- The percentage decrease in current periodicals for 2008-09 was by 4.06%, 0.38% and 6.33% in PUC, PUP and GNDU where as no change is recorded in case of KUK, which further decreased in subsequent year by 0.76% in PUP, whereas neither decrease nor increase in current periodicals collection is found in PUC, GNDU and KUK. During 2010-11 current periodicals collection of PUC, PUP and GNDU further decreased by 9.09%, 3.03% and 3.57% in comparison to 2009-10, whereas it remained same in KUK.
• PUC and GNDU has not acquired any manuscript from 2007-08 to 2010-11.
• KUK has got the maximum number of manuscripts.
• PUC, PUP and GNDU acquired maximum number of manuscripts in their respective first decades, whereas KUK has recorded maximum manuscripts in its sixth decade, i.e. 2006 onwards.
• PUP has acquired maximum number of manuscripts, i.e. 99.03% through gift, whereas GNDU has acquired minimum number of manuscripts, i.e. 8.24% of the total manuscript collection through gift.
• The percentage of purchased manuscripts in GNDU, PUC and KUK is 91.75%, 84.05%, 40.46% respectively, whereas, PUP has purchased merely 0.96% of the manuscripts.
• GNDU and PUP have rich collection of Punjabi language manuscripts comprising 85.42% and 83.23% of respective manuscripts collection.
• KUK possesses rich collection of manuscripts of Sanskrit language, i.e. 96.79% of total manuscripts collection whereas PUC possesses maximum number of Persian manuscripts, i.e. 33.48% of manuscripts collection.
• Manuscripts are used by the research scholars and special members.
• Manuscripts are used rarely in all the university libraries.
• Title and name of the author are two search options adopted by the users to trace a particular manuscript.
• Manuscripts of PUP and GNDU are used by Indian as well as foreign scholars.
• Classification scheme as well as Cataloguing Code is not used by any university except PUP to classify and catalogue the manuscripts collection.
• Manuscripts in all the university libraries are placed according to accession numbers.
• Manuscripts of PUC, PUP, GNDU and KUK are less used because of unawareness of users regarding collection, lack of knowledge of language and script of manuscripts, poor physical condition of
manuscripts, inadequate knowledge of staff regarding collection. Lack of infrastructure facilities is also the reason of less use of manuscripts in KUK and PUC.

- Library orientation and library information brochures are used in all the university libraries to increase the awareness among users about the manuscripts collection of the universities. The exhibitions are held by GNDU and KUK only. GNDU publish library bulletins to increase user awareness, whereas no other library is using this method.
- Catalogue of manuscripts collection of GNDU and PUP are available on their websites.
- Lending of manuscripts, indexing, inter-library-loan, transcription, translation, open access, audio-visual services, automated translation, multimedia services, e-mail, and online full text searching are not extended by any of the university libraries.
- GNDU, PUP and PUC provide CD-ROM searching facility to the users.
- Microfilm reader service is provided by GNDU only.
- All the universities are part of national database i.e. Kritisampada.
- PUC, PUP and KUK have plans to digitize manuscripts in near future, whereas GNDU has digitized its manuscript collection.
- Insects, rodents and ageing are the common cause of damage to manuscripts in all the university libraries.
- KUK and PUC are not giving any treatment to manuscripts for their preservation and conservation.
- Fumigation of manuscripts is done only in GNDU.
- Lamination of manuscripts is done only in PUP and GNDU.
- Floor cleaning, shelf cleaning, covering of manuscripts when not in use with cloth, pest control management is adopted in all the university libraries as a preventive measure to safeguard manuscripts. Collection condition survey is done only in GNDU.
- PUC, GNDU and KUK have installed fire extinguishers to safeguard their manuscripts against fire hazards, whereas PUP has not taken any preventive measures against fire hazards.
• Dry method of cleaning, i.e. sweeping and dusting is practiced in manuscripts section of all the universities under study.
• Brooms are used by all the university libraries to clean manuscripts section. Brushes are used for dusting in GNDU only.
• Napthalene balls and neem leaves are the common methods which are used for pest control in all the universities, whereas Para di-chloro benzene is used exclusively in GNDU.
• The emerging technologies like freezing, habitat modification, insect growth regulators are not used by any of the university libraries under study to control insects.
• Microfilming of manuscripts is done in GNDU only.
• In PUP, GNDU and KUK the seating facility is provided inside the manuscripts section, whereas in PUC there is no seating arrangement exclusively for consulting manuscripts in manuscripts section.
• The air condition facility is available in PUC and GNDU only.
• Conservation laboratory is not established by any of the university libraries. The binding and digitization facilities are available in all university libraries, except KUK.
• Lamination facilities are available in PUP and GNDU only.
• GNDU is only university having microfilming facility and fumigation chamber.
• The digital camera is available with all the university libraries, except KUK. University libraries are not equipped with scanners such as flatbed, drum or face-up scanners.
• Software for digitization is not available with any of the university libraries under study.
• PUP and GNDU lack specialized personnel for manuscripts collection, whereas, KUK has appointed two conservators on temporary basis. Only PUC is having one archivist for the manuscripts collection.
• All the universities under study are digitizing the full text of the manuscripts. GNDU has digitized 100% of the manuscripts collection,
where as PUC, PUP and KUK have digitized 35.96%, 68.12% and 2.9% of the respective manuscripts collection.

- PUP and GNDU has appointed computer personnel for the digitization of manuscript collection and the staff is digitizing the collection of their own, whereas KUK has done outsourcing for the digitization and got 421 manuscripts digitized. PUC has neither done outsourcing nor is the existing staff digitizing the collection.

- All the universities face problems related to software, financial constraints and lack of training opportunities. KUK and PUC face the problem of untrained staff. Only KUK faces hardware problem. Human resource problem, i.e. tendency of staff is faced by PUC, PUP and KUK.

6.3 Testing of Hypotheses

H1 Library professionals are more concerned and interested in the acquisition, organization and dissemination of the general collection rather than manuscripts in university libraries.

It is clear from table 5.3, table 5.4 and table 5.5 that in all the libraries, sufficient funds are allocated for books and periodicals whereas meager amount is allocated for manuscripts and PUC has no separate budget for manuscripts. Table 5.6, table 5.7 and table 5.8 shows that all libraries acquire books and periodicals whereas only PUP and KUK has added to manuscript collection. Figure 5.5 and figure 5.9 shows the details of expenditure incurred and acquisition of manuscripts of the universities under study and shows since 1999-2000 none of the university under study has incurred expenditure on manuscripts acquisition. KUK and PUP has added only gifted manuscripts to its collection. Table 5.16 shows none of the universities except PUP are using classification scheme to classify the collection. Cataloguing code are also not used to prepare the catalogues of the collection. Though PUP has classified manuscripts using colon classification but manuscripts in PUP,
GNDU, PUC and KUK are arranged according to accession number only. Table 5.18 and table 5.19 shows reference service, bibliographic service and consultancy services are provided to the users of manuscripts collection. Only GNDU provide microfilm reader facility. None of the universities provide services like lending, interlibrary loan, translation, transcription, photocopying, online full text searching. Even in future the universities are neutral in providing transcription and translation services, electronic document delivery service to the users of manuscript collection. Hence, this hypothesis is proved to be true.

**H2** Lack of awareness amongst user's of manuscripts collection in university libraries.

It is clear from table 5.12, table 5.14 and table 5.15 that manuscripts are rarely used in the libraries and the users unawareness about the collection, lack of knowledge of language and script of manuscripts, poor physical condition and inadequate knowledge of the staff regarding collection are the reasons for the less use of the collection. Hence, this hypothesis is proved to be true.

**H3** Lack of organization and standardization for manuscripts collection in university libraries.

It is clear from table 5.16 that manuscripts are arranged on the basis of accession numbers in all the university libraries under study. Hence, this hypothesis is proved to be true.

**H4** Conservation and preservation techniques of manuscripts collection are not satisfactory in university libraries.

It is clear from table 5.21 and table 5.22 that lamination of manuscripts is done in PUP and GNDU and fumigation is done in GNDU only. Treatments like oiling, minor repairs, relining, encapsulation, de-acidification of the
manuscripts are not done in university libraries under study. PUC and KUK are not giving any treatment to the manuscripts. Preventive preservation procedure like cleaning, pest control, and covering manuscripts with cloth when not in use are practiced in university libraries to safeguard the collection. Hence, this hypothesis is proved to be true.

**H5** Lack of infrastructure facilities available for manuscripts collection in university libraries.

It is clear from table 5.28 lamination equipment is available with only two universities, i.e. GNDU and PUP. Only GNDU has microfilming facilities and fumigation chamber. Moreover, none of the university libraries under study has set up conservation laboratory. Hence, this hypothesis is proved to be true.

**H6** Lack of awareness of modern technology for conservation and preservation of manuscripts in university libraries.

It is clear from table 5.25 and table 5.26 that neem leaves and naphthalene balls are used to control pest in university libraries. Paradichloro benzene is used in GNDU only to control pest. The emerging technologies freezing, habitat modification, insect growth regulators are not used by any of the university libraries under study. Though digitization facilities are available in all the universities except KUK but digitization has been completed in GNDU only. Moreover, microfilming facilities are available in GNDU only. Hence, this hypothesis is proved to be true.

**6.4 SUGGESTIONS**

Manuscripts are invaluable source of knowledge. Present survey highlights that although the libraries are trying hard to preserve the collection through digitization and microfilming, yet there is a need for sincere effort to safeguard the manuscripts in their physical form and also
proper utilization of manuscripts. The major challenges faced by the libraries are lack of funds, lack of infrastructure, lack of proper training in the field of conservation, lack of knowledge regarding collection, inability to read the language and scripts, lack of trained personnel to give treatment to mutilated, damaged or infested manuscripts.

Although it is difficult to overcome the barriers in a short span of time, yet researcher has put forth some suggestions on the basis of above findings that should be given serious consideration to preserve, conserve and utilize the manuscript collection.

6.4.1 Manuscripts Storage

The storage infrastructure plays a very important role in the preservation of the manuscripts. The building as well as furniture for the purpose of storage, methods, techniques, and other facilities related to storage is the key factor for the upkeep of the manuscripts. Some suggestions are given to be considered while storing manuscripts:

- All the university libraries should ensure manuscript collection area is clean and tidy.
- There should be no danger of fire or water disaster.
- Electric switchboard should be outside the room if possible.
- Good lighting and ventilation should be there.
- Manuscripts should not be kept on the floor.
- The storage area should be inspected regularly. Physical inspection of the collection to look out for live insects or fine powder deposits near manuscripts, fungus deposits, broken bindings, torn manuscripts should be done regularly.
- Inspection report should be made to keep the record of the actions taken on the infected manuscripts.
- Recently acquired or donated manuscripts should be examined for insect or fungus attack and kept under observation before being documented and brought into the storage area.
- Humidity and temperature of the storage area should be maintained at...
optimum level and should be monitored.

- At least one staff trained in curative and preventive conservation should be appointed for the manuscript collection.

6.4.2 Handling

Manuscripts are fragile and delicate and need to be handled with care. The following suggestions are made regarding handling the manuscripts:

- Use both hands to handle manuscripts safely.
- Tray or solid support should be used when moving a manuscript.
- Hands should be clean when handling manuscripts.
- Writing numbers on the body of the text should be avoided.
- Folios of similar size should be kept together.
- Pages should not be marked with pens.

6.4.3 Users

All services revolve around the users and it is the usage of the collection which is of prime importance. As the manuscripts are the unique documents precautions should be taken to avoid damage while consulting them. The following suggestions are made:

- Orientation should be given to the users for proper handling and usage of manuscripts.
- Users should turn over the pages gently, should not mark on the manuscript and keep the manuscript on a flat support while consulting.
- Users should not be allowed to take tea or water near the manuscript.
- Users should be instructed, not to replace a manuscript on a shelf after consulting, without the knowledge of the custodian.

6.4.4 Utilization of manuscripts

Manuscripts are rich source of information but are not utilized. Tracing the users and informing them regarding the collection is a big challenge.
Moreover, to overcome the hindrances in the utilization of manuscripts continuous efforts of the custodians is required. Some suggestions are given below to improve the utilization of manuscripts:

- The manuscripts are in the languages and scripts which are not known to all the users, the universities should impart education in the field so that manuscripts are used by users overcoming the language and scripts barrier.
- Translation and transcription services should be provided in order to use the manuscripts.
- Fellowships and award should be offered for the translation of manuscripts in other Indian languages so that conventional knowledge should be passed on to the coming generation.
- Publicity of the available manuscripts should be done by organizing exhibitions, display of manuscripts in library, information on website, etc.
- Universities should coordinate with other organization for the digitization work and duplication should be avoided.
- The universities should make the digitized manuscripts collection available online.

6.5 CONCLUSION

Manuscripts generated a lot of debate over its access, storage, preservation and copyright. The apex bodies involved with the framing of guidelines like Ministry of Human Resource Management (MHRD), Ministry of Tourism and Culture, UGC, are silent regarding the dissemination and preservation of manuscripts. In Art and Antiquities Act, 1972, where manuscripts are mentioned as one of a number of art objects, and antiquities, no legislation was put in place to safeguard manuscripts. Manuscripts, therefore, were neglected and largely in poor condition scattered through out the country and abroad.

In 1987 IGNCA was established and in 1989 it took initiative to catalogue and document the manuscripts. It was under 10th five year plan that
a focused initiative have been taken by Ministry of Tourism and Culture, Government of India, and National Mission for Manuscripts was created in 2003 with the view to preserving and disseminating the knowledge base to scholars and people at large. Manuscripts are getting a facelift under the NMM, a five year project of Indian Ministry of Culture. Unraveling the mysteries of past, the manuscripts detail age old knowledge, on different themes which might have been lost forever. These are invaluable for the intellectual empowerment of the country is now getting collected and catalogued by NMM. The text reveals secrets of the past, and are all there to enrich any country striving to unravel its glorious past.

Estimates suggest that five million manuscripts are laying neglected, unattended, ignored in institutes, libraries, old temples, etc. NMM is a ray of hope in for the custodians of manuscripts as well as the scholars and is looked upon as a savior of manuscript wealth of the country. NMM had been in state of hibernation during the period 2007-09. It is very disappointing that mission after a kick-start, lost its initiative. This is a cause of concern and it is crucial to identify the reason of such discontinuity in the project. It may demotivate the institutions, scholars, field workers who actively participate in the accomplishment of the mission. A positive approach and efforts should be made to keep the mission alive and growing. However, the steps taken by the mission and the efforts of mission are not sufficient to handle the vast Indian manuscript wealth scattered through out the world. The libraries having manuscripts collection should follow the guidelines of NMM and by sharing the resources as well as manpower can get the desired results in shortest span of time and with minimum cost involved. Preservation of the pride collection is a race against time, cooperative and collaborative approach is the only solution for the preservation and propagation of the knowledge in the manuscripts to the entire world.

6.6 FURTHER STUDIES

Development is never a single installment process. It is a continuous process, in the sense that no study, in any field is final. In fact, every research into an area opens new vistas and brings new factors to light, thus promoting...
further work in the area. The researchers always feel that further investigation could be promoted, truth reached is never absolute but only relative and every researcher increases the relativity of truth. In view of the current research, the following studies in future may be found pragmatic:

- Impact of National Mission for Manuscripts on preservation and utilization of manuscripts in India.
- Information seeking behaviors of the users of manuscripts.
- The present study was confined to the university libraries only. For further studies manuscripts in public libraries, temples and private ownership can be covered.
- The present study was confined to the state of Punjab, Haryana and Union Territory of Chandigarh. Further research work can be undertaken to replicate the present study from other state of India.