Chapter 5

Testing of Hypotheses, Conclusions and Recommendations

The chapter presents the conclusions drawn from the study on the basis of analysis of data in the earlier chapter. It also covers suggestions, recommendations and testing of hypotheses. Public libraries and CICs are disseminating the information to the people in their own ways. Libraries are providing information in a traditional way, whereas CICs are using ICT to fulfill the information needs of the people. To provide access to the need based information to the people, especially at grass root level, these two organizations should collaborate and cooperate with each other.

5.1 Testing of Hypotheses

Hypothesis 1

CICs possess the adequate infrastructure and facilities in terms of ICTs to meet the information needs of the local communities.

CIC users were asked in the questionnaire about the adequacy of available infrastructure at CICs in terms of ICT, the majority (58%) of the respondents reported that the available infrastructure at CICs is adequate, but it needs timely maintenance.

Users were also asked about their satisfaction for services/ facilities available at CICs. Most of the respondents (36.2%) were dissatisfied with the services/ facilities available at CIC. According to them a very less number of services/ facilities are being provided by CICs. There is a dire need to upgrade the services/ facilities of CICs. Moreover, CICs should provide all the major CISs to the people and also create awareness about these services, so that users can derive maximum benefit out of it. Hence, the hypothesis partly proved.

Hypothesis 2

Public libraries do not possess the adequate infrastructure and facilities in terms of ICTs to meet the information needs of the local communities.

Public Library staff was asked in the questionnaire about the infrastructure and facilities,
they possess in terms of ICT. Almost all the respondents responded that they are still working manually except SRS public library where E-grantha laya software is installed to perform housekeeping operations. As per internet connectivity is concerned, no library is having this facility and hence, not providing any web based services to the users. Also the services/facilities of public libraries were very limited and provided in traditional way. Users were asked about their satisfaction level about the services of the public library, 40.7% of the users indicated their dissatisfaction about the services provided by public libraries. Hence, it is clear that public library do not possess adequate infrastructure and services/facilities in terms of ICT. Hence, the hypothesis is proved.

**Hypothesis 3**

Lack of awareness and limited number of services offered by CICs are the major problems faced by CIC users.

Users’ of the CICs were asked in the questionnaire about the problems faced by them while visiting CIC, the majority (52.2%) of them felt ‘unawareness about the different services offered by CICs’ followed by (44.4%) who said ‘limited number of services offered by CICs’ as their major problems. The \(x^2\) value for unawareness about the different services offered by CICs and limited number of services offered by CICs, was found to be significant as per age, category and qualification. Thus, it can be inferred that these attributes are significantly associated. Hence, the hypothesis is proved.

**Hypothesis 4**

Lack of ICT facility and lack of required services are the major problems faced by the users of the public libraries.

Users’ of the public library were asked in the questionnaire about the problems faced by them while visiting public libraries, the majority 153 (81.0%) of them responded lack of ICT facility followed by 141 (74.6%) who remarked lack of required services as their major problems. The \(x^2\) value for the attributes ‘lack of ICT facility’ is found to be significant as per age, category and qualification whereas \(x^2\) value for ‘lack of required services’ found to be significant as per qualification. Thus, the hypothesis is accepted.
Hypothesis 5

There is no synergy between the facilities of CICs and resources available in public libraries.

Public libraries and CICs were asked in the questionnaire about their association or collaboration with each other. All (100%) of the staff members of public libraries as well as CICs, reported that there is no collaboration between them. Moreover, they admitted that there should be collaboration between them to provide better services to the people. Hence, the hypothesis is accepted.

5.2 Conclusions

5.2.1 Community Information Centres

- Adequate infrastructure is the key to provide better services to the people. Each CIC is equipped with infrastructure including one server machine, five client systems, one each of a VSAT, laser printer and dot matrix printer (either both or one), modem, LAN hub, UPS (1KVA, 2 KVA) and generators. Some centres also have scanners and webcam. Although the infrastructure available at CICs is not maintained regularly that is why most of the equipment are lying non functional.

- CICs have technically qualified staff. Most of the CICs have two CICOs (Community Information Centre Operators). It is found that most of the staff (31.2%) possess MCA qualification followed by MSc.IT (12.5%), B.E (10.4%), PGDCA (8.3%) and BCA (6.2%). CIC staff reveals that no training is being provided to CICOs to enhance their skills. The staff members need practical training to handle ICT tools. Majority (81.2%) of the staff members feel that there is a need of practical training of ICT applications to increase their technical competence. Besides, some of the staff members are of the view that there is a requirement of short term refresher courses, workshops and in house training to update their knowledge and ICT skill.

- CICs are set up to create IT base at the block level so that people can solve their day to day problems and can participate in decision making process. Majority (91.7%) of the CICs are mainly being used for uploading the data of Rural Development
Department (RDD), MNREGA (Mahatma Gandhi National Rural Employment Guarantee Act), BRGF (Backward Regions Grant Funds), TSC (Total Sanitation Campaign), election purposes, etc. Besides, ‘internet access’, ‘online forms, exam result, information about admission date & time’, ‘computer training programs’, ‘grievance redressal’, ‘counselling about loans, government orders & schemes’, ‘e-ticketing’ services are being offered by CICs. Few CICs are also providing ‘real time market access & e-commerce’ and ‘access to socio economic databases’ whereas ‘agricultural information services’ and ‘health information services’ are not being provided by the CICs. It is also observed by the researcher that CICs are being used for official work of Rural Development Department as these CICs are set up in the premises of BDO’s office. The need of the hour is to free these CICs from this official work and allow them to work independently with the purpose of providing CIS to the people.

- The staff members of CICs are providing information to the users by using internet, by counselling and answering the query of the user. The use of databases and audio visual tools is lacking as far as information dissemination is concerned.
- Most of the staff members (47.9%) responded that needs and opinions of the users are not being taken into consideration by the CICs. There is a need to take regular feedback from the users to know the performance of the CICs.
- CIC staff reported that lack of funding (81.2%), lack of awareness among people (77.1%), lack of training for enhancing the skills of CICO (70.8%) and lack of staff for creating awareness among people (62.5%) are the major problems being faced by them. Besides, 77.1% of the staff members are facing problems like maintenance of equipment, inadequate internet connectivity, use of CICs for other official work, non redressal of their grievances by the government and not timely payment of salaries to the staff. Lack of required material, lack of proper planning for providing services and illiteracy among people are some other problems being faced by CICOs.
- A large number of users who visit CICs are the students (45.9%) followed by the unemployed youth (23.2%). Hardly any farmer, small scale businessman and social worker visit CICs due to lack of awareness.
- Majority (62.3%) of the respondents visit CICs for ‘internet access’, followed by ‘online forms, exam result, admission date & time’ (46.9%) and ‘computer training programs’ (45.9%). This is due to the fact that CICs are not efficiently providing the other major services like ‘real time market access & e-commerce’, ‘e-learning & e-education’, ‘access to socio economic databases’, ‘e-ticketing’, ‘e-tendering & e-procurement’, ‘grievance redressal’, etc.

- Most of the users (83.1%) are aware of ‘internet access’, followed by ‘computer training programs’ (62.3%), ‘online forms, exam results, admission date & time’ (54.6%), ‘counselling about loans, government orders & schemes’ (22.2%) whereas they are less aware of other services like ‘access to socio economic databases’ (14.0%), ‘e-learning & e-education’ (10.6%) and ‘real time market access & e-commerce’ (6.3%), etc.

- Awareness level of users regarding different services varies as per their age, category and qualification. Majority of the users of younger age group are more aware of internet access whereas, respondents of both younger and older age group are less aware of services like real time market access & e-commerce, access to socio-economic databases, e-learning & e-education, e-governance and agricultural information services. Awareness of CIC services as per their category reveal that student, government official, unemployed youth and service holder category are more aware of internet access service whereas the general public category is more aware of grievance redressal service. Besides, majority of the respondents with higher qualification are more aware of the services offered by CICs as compared to their less qualified counterparts.

- Most of the users (38.2%) visit CICs only 2-3 times a week followed by daily (19.3%), weekly (16.9%), rare (13.5%) and monthly (12.1%) visitors.

- After the introduction of CIC, majority of the respondents strongly disagree about getting better information regarding agricultural and health products, 34.8% and 41.5% partially agree that they get better information regarding educational material and employment opportunities respectively. Besides, 50% of the respondents strongly agree of getting better information of computer operations while 35.3% quite disagree of getting better information of citizen centric services and 39.1% partially agree that
they get better information of government products and services after the introduction of CICs.

- Respondents shared their opinion on some statements regarding CICs, 82.1% of the respondents strongly agree that CICs are effective means for communication and information, 81.6% also strongly agree that CICs provide lower cost of seeking and getting products & services, (44.4%) respondents partially agree that CICs facilitates better information about products and services, 41.1% quite disagree that CIC facilitate direct contact with required persons/ institutions and 52.7% of the respondents strongly agree that CICs can help to improve the knowledge among people.

5.2.2 Public libraries

- In this society, where every field is influenced by information technology, libraries are no exception to it. Public libraries in Jammu division are still working manually whereas the process of automation is at early stage only in SRS public library, in which housekeeping operations are being maintained by using e-granthalaya software. There is no internet facility in any public library of the state hence, no web based service is being provided by any of the libraries to its users. However, majority (68.2%) of the staff members admit that implementation of technology is necessary for efficient working of the libraries.

- It is observed by the researcher that most of the staff in public libraries is non professional and even some libraries are being managed by orderly only.

- It is found that most of the major services are not being provided by public libraries like user education, audio video viewing, interlibrary loan, resource sharing, reference service, community information service, translation services, indexing abstracting service, CAS/SDI service, document delivery service, access to e- resources, etc.

- All the staff members of the public libraries of Jammu division responded that books and newspapers are their major learning resources.

- The major problems being faced by the staff of the public libraries are inadequate infrastructure, lack of funds, lack of skilled staff, lack of use of IT and lack of sufficient material regarding the queries of the users.
• Automation of public libraries in J & K is going on with the assistance of NIC. There is a plan to automate all the public libraries in the state in three phases. In phase I, four main larger libraries will be covered, in phase II, 22 district libraries will be covered and in phase III, block libraries and reading rooms would be covered. The work is in progress for the first phase.

• Majority (58.2%) of the users who visit public library are the students followed by the local people. A small fraction of ex-servicemen, service holder, government official and small scale business people are also the visitors of public library.

• Maximum (32.8%) respondents admit that they visit public library 2-3 times a week followed by 30.2% who are daily visitors. There are also some respondents who visit their respective public library weekly (23.8%), monthly (10.1%) and rarely (3.2%).

• Majority (93.7%) of the respondents visit public libraries for newspaper reading, followed by to use books and reading room, which means that other important services are not being provided by the public libraries. According to the respondents, the main source of information in the public libraries is newspapers, magazines and books.

• Out of the total respondents who visit public library, only 15.3% are aware of CISs, whereas, majority (84.7%) of them do not know about CIS which shows that public libraries are not taking any initiative for providing CISs and even are not creating any awareness among people about these services. There is no collaboration between public libraries and CICs for providing CISs.

• It is evident from the survey that no public library is providing CIS to its users. However, users are ready to pay nominal charges for services, like use of computers and internet services, e-services (e-governance, e-learning & e-education), citizen centric services, agricultural and health services, if provided by libraries.

• A lot of problems are being faced by respondents while visiting public libraries. The major problems are lack of ICT facility, lack of required services, inadequate professional staff, lack of infrastructure, etc.

• Most of the respondents (40.7%) are not satisfied with the services provided by the public libraries.
5.3 Recommendations

5.3.1 Community Information Centres

- Awareness about the CISs offered by CICs is a key to get maximum benefit from these services. Merely setting up of CICs is not sufficient to serve the people. In order to provide services in effective and efficient manner, it is important to make people well informed about these services. CICs should arrange awareness programs from time to time to create awareness among people about various services and facilities of CICs. Print and electronic media i.e., newspapers, TV, radio, internet, etc can play a very significant role in creating awareness among people. Government should also make deliberate efforts to create awareness about CICs and their services by using the power of media. Social networking tools can be used to create awareness among people by creating groups or community pages of CICs.

- The basic function of CICs is to provide CISs to the local people, but they are generally engaged in official work of Rural Development Department due to which they are unable to focus on the work of CIC. There is a need to harness their talent by engaging them in the work for which they are appointed. It is suggested that the concerned authorities should prepare guidelines for their role and functions in CICs. There is also a need for appraisal of their work, time to time redressal of their problems and grievances by the concerned authorities. This will make them focussed, involved and contented and in turn, they will perform better.

- CICs have technically qualified staff. Inspite of this, the staff is appointed on contractual basis and offered very low wages. This leads to financial and job insecurity among them. It is recommended to create permanent posts for CICOs so that they have job satisfaction and thus, perform the duty enthusiastically.

- Very limited number of services are being provided by CICs. It is suggested that services such as RTI, Public Service Guarantee Act (PSGA), passport service, PAN Card service, birth and death registration, etc should be provided
in addition to the services already being provided by the CICs. This will attract more and more people towards CICs. Also, centrally sponsored schemes (MNREGA, NRHM, ASHA, etc) need to be communicated to the rural people through the CICs. Presently, CICs are providing job cards under MNREGA scheme which is benefitting many people, but this is not sufficient. CICs should also extend focus on other schemes and areas.

- Primarily, CICs are set up to bridge digital divide and to create IT awareness at grass root level but they are not fulfilling the said goal. There is a need to create IT awareness at ground level through CICs which will help to reduce the digital divide and fulfill the dream of former president A.P.J Abdul Kalam ‘Vision 2020’ of seeing India as a developed country where people will have all the basic amenities.

- In order to include people from all the sections, an effective committee should be constituted comprising of representatives from all the sections i.e., Tehsildar, BDO, CDPO, Sarpanch, etc. Moreover, it should arrange meetings with public (student community, housewives, farmers, youth, etc) at regular intervals to discuss their problems and solution should be drawn accordingly.

- The working of CICs depend upon the equipment. Therefore maintenance of equipment is very important to provide better services to the people. Besides, adequate internet connectivity is also important for providing timely services to the users.

- TVs should be made available in all the CICs so that the benefit of audio visual tools and educational programs like gyandarshan can be provided to the people.

- It is recommended that the infrastructure should be increased and the professionals from the field of library and information science should be associated with the CICs. They can help in providing need based information to the users by identifying their information needs.

- It is recommended that CICs should have their own website which will help people to know about the services of CICs and also help in easy retrieval of information.
• It is suggested to provide training to CICOs at regular intervals to enhance their skills to cater the needs of people.

• Proper planning should be done on the modes, means, form and format in which community information services should be provided to the people.

• Illiteracy is the main hurdle for the active participation of the people. CICs as a learning centre can be utilised for adult education using different means such as audio-visual tools, CD based courses, video conferencing, internet based education, etc. CICs should also arrange cultural activities like drama where illiterate and neo literate can also participate.

• Recent policies and programs of J&K government, concept of e-libraries, e-tendering & e-procurement, e-governance, etc can only be practically possible when people are aware about the use of IT. Here, CICs can play a significant role by creating strong base for IT enabled society.

• Work is in progress for the implementation of State Wide Area Network (SWAN) through CICs. This will help in connecting all the government offices within the state which will help to improve administrative efficiency and improve quality of service to the common man.

• There is need of 7 ‘Cs’ to provide CIS by CICs to the people. These 7 ‘Cs’ are:

**Figure 5.1 Seven C’s for Providing CIS**
**Content:** The first ‘C’ is content. It is very necessary to have adequate and appropriate content according to the needs of the people. Up to date, accurate and extensive content maintenance is very important for providing effective CIS to the people.

**Connect:** The second ‘C’ is to Connect. There is a need to connect the community with the services offered by CICs as they are the ultimate beneficiaries. To connect people with CICs, it is necessary to create awareness among them.

**Communicate:** The third ‘C’ refers to ‘to Communicate. Communication is very important for the flow of information. If the information is not communicated properly and within time, then it is of no importance. So, it is very important to communicate the right information to the right person at right time.

**Change:** Here, this ‘C’ means to change. The change means to change the attitude of people by creating awareness among them about the different CIS and their use. This will in turn change the socio economic condition of the people by enabling them to take informed decisions.

**Consistency:** Here, consistency means consistency of CICs in providing services to the people because for real change, there should be consistent efforts by the staff in providing services and creating awareness among the people.

**Comprehensive Planning:** There should be comprehensive planning for providing services to the users, i.e., in what form and format services should be provided, how and what services should be provided, how awareness should be created among people so that more and more people should be attracted towards these centres and can get maximum benefit out of it. Planning should be done in a way that optimum benefit should reach the target group.

**Collaborate and cooperate:** No organization is self sufficient so there should be collaboration and cooperation among different organizations to work towards the common goal. The staff should also have cooperative approach towards the users so that they can feel free to discuss their problems and needs with them and this will also increase the trust and interaction among the staff and the users.

- Therefore with these 7 ‘Cs’, CICs can play an important role in development of the knowledge society as ICT is the facilitator for the development of knowledge society and the main function of CICs is to provide ICT based services at the grass root level. CICs
will enable people to use ICT and this will create awareness among people and they will participate in decision making process and hence, contribute towards the development of the knowledge society.

**Figure 5.2 ICT as a facilitator or enabler for development of knowledge society**

5.3.2 Public libraries

- The director of the public libraries should be a subject expert. Generally, the director who is appointed is a non-professional therefore is unable to focus on the thrust areas in this field and might not upgrade the public libraries to that extent and thus, hampers the growth.
- Public libraries should act as community oriented libraries rather than store house and repository of books and documents. There should be identification of community information needs through careful research. Depending upon the local needs, the libraries should acquire, collect, organise and disseminate information in all forms and formats.
• For socio-economic emancipation of citizens, it is necessary to provide required information to the right person at the right time. It is a continuous process for which Public library Act should be passed and implemented to fulfil the information needs of people.

• Information should be provided in vernacular language to those who are unable to understand the English language. Therefore, local language software should be developed keeping in view the needs of the people.

• Community information should be collected from all sources and in all forms by the public library. The acquisition of these materials should be on the basis of local community information needs and the material should be accurate, extensive and up-to-date. The public library should also keep close link with other government organisations and NGOs for collecting and sharing resources.

• Each public library should prepare directories on different aspects and different agencies concerning health, education, transport, communication, etc along with their activities and contact points of their locality to meet the general community information needs.

• Government should give attention towards the public libraries. Adequate funding and resources should be provided for the smooth functioning of the public libraries. Funds can also be generated by public libraries by charging nominal fees for some specialised services.

• Efforts should be made to strengthen the relationship among users and library professionals by constant interaction because interactive approach with communities is necessary to know their information needs.

• Adequate staff is the backbone of any organisation. The public libraries are being run by non-professional staff. There is a need to appoint professional staff for effective and efficient working of the public libraries. Therefore, all the vacant posts in the public libraries should be filled up on priority basis.

• It is suggested that public libraries should implement and introduce IT facilities to provide better community information services.
• Several training programs such as short term training programs, refresher courses, orientation programs, and workshops should be organised from time to time for the library staff to sharpen their skills.

• There should be provision of translation services in local language by the public libraries.

• Public libraries can create awareness among people by organising seminars, orientation programs, lectures, film shows, folk dramas, exhibitions, etc. These awareness programs should be organised from time to time and it is the duty of the library professionals to convince more and more people to attend these programs to avail maximum benefit.

• Although steps are taken to automate all the public libraries in the state of J & K. In pilot phase, four central state libraries are covered, but there is a need to speed up the process. All the public libraries should be automated and networked to share their resources efficiently. These should also have networking and connectivity with regional, national and international network to share resources.

• We are living in an information and technologically driven society. Time is precious and everybody needs fast, precise, accurate, exact and timely information. It is unfortunate that libraries are still using traditional ways to disseminate information to the people which is one of the biggest cause of non satisfaction among users. With the development of ICT, there is a need to change the role of libraries. Libraries need to be shift towards information based community oriented libraries rather than repository centres of books and other documents.

• India is a country with rich and diverse cultural heritage. It has huge untapped resources in the public library system. Public library is preserving information in the form of manuscripts and rare books but just preservation is not sufficient. It is the duty of the public libraries to bring these sources within the purview of general public, so that the information sources can be exploited and people will be able to know about their culture and roots. Community Information Services is not the sole responsibility of CICs. Public libraries are also set up to serve local communities. Therefore, these libraries should concentrate more on CISs and this demands synergy between the CICs and public libraries.
It is concluded by the researcher, that public libraries and CICs are disseminating information to public in their own ways. There is a need to find out the strength of both these organisations and exploit their strength to draw maximum benefit for the people. The collaboration between the two can help in fulfilling the digital divide among information rich and information poor. This association can be highly fruitful in fulfilling the information needs of the users, especially at the block level. By using internet as a major tool, CICs can provide need based information to the rural people at their door steps. Public libraries can help CICs in building the suitable content and providing the right information to the right user at the right time. Therefore, there is a dire need that government should give attention towards the proper implementation of CICs and public libraries for effective functioning of both these organizations.