CHAPTER V
Conclusion and Summary of Findings

5.1 Concluding Remarks

Electronic resources though are found in various sophisticated electronic formats, are becoming more popular and pervasive. The clientele are, therefore, supposed to know the nature, content, property, and characteristics of e-resources for deriving delight and desired satisfaction in accessing the contents of these myriad resources. However, it is found from the study that, electronic resources have yet been neither widely explored nor effectively used by the patrons of Business Schools of Orissa. In this regard, it is very crucial for the Library and Information Science professionals of this generation to identify, understand, acquire, process, apprise, motivate, and teach the users’ community how to utilize the potential electronic information available in different formats and styles through various subscribed online databases, open access free journals and websites and so forth which are still found uncharted by many users. In this regard, attempts should be made to make all the users of Business School libraries of Orissa, aware of e-resources and to develop appropriate methods so as to apprise and orient the users how to get full text articles without facing much difficulty. In the light of the findings from the survey, it is highly recommended that library practitioners should come forward to meet the challenging situations in an optimistic way. First of all, they should encourage the user community, the glaring impact of electronic resources and their importance for the need of research and academic assignments so that it would create a solid ground to influence the people in Library management to have a serious look at the prospect of creating a digital learning environment. Second, all the librarians of Business Schools in Orissa should form a forum to discuss their problems and prospects relating to enhancement of e-resources and services. Last, but not the least, a feasible plan for developing a network of Business School Libraries of Orissa (BSLONET) may be worked out (Fig -5.1) which in turn can generate vast scope for all the member libraries to avail optimum e-resources and services through BSLONET in a cost effective and easy way. BSLONET could be a central agency to procure, access and distribute need- based electronic services to the respective centers as per the
level of their information requirement and investment capacity. The construction of BSLONET would surely set the right kind of platform for creating an enabling digital library environment among the Business Schools of the state. Moreover, BSLONET would not only help to solve the real life problems of librarians of Business Schools of this part of the world, but would incontestably act as a role model to many different parts of the world where similar sort of problems are faced.

5.2 Major Findings

The existing scenario of the study is that of respondents as bystanders of electronic information. Here, the focus is on how electronic resources are processed and distributed by librarians and successfully consumed by users. Therefore, the questionnaire enlisted useful inquisitions on awareness of electronic resources, use of search engines, electronic infrastructural facilities, institutional policies on electronic resources and services and related issues. Some of the key findings from the survey are presented below:

5.2.1 The availability of e-resources is found in a maximum of 17 (57%) libraries and a minimum of 9 libraries (30%). This implies that, e-resources and services are conspicuously found in some leading B-schools of Orissa (Table-42).

5.2.2 From among 14 listed online journals, three journals namely, Journal of Finance, Journal of Financial and Quantitative Analysis, and the Economist are used more (33% each) in comparison to other online journals. While, Business Society, Business Forum, and Journal of International Studies are each being used in 30% of the libraries, followed by Asia Pacific Review, E-Business (27% each), and the Banker, Business and Policies, Business Data and Business Week Online (23% each). On the contrary, Business Recorder is found to be the least used journal (20%) (Table-43) in the Business School libraries.

5.2.3 Use of Online databases is curbed within a selected few B-schools of the state. Business Source Complete (EBSCO) is used only by seven B-school libraries which constitute 23% of the total followed by Emerald Management Xtra(20%) while, Reuters Business Insight, EIU Views Wire, and World Development Indicator (WDI) constitute 17% each. However, online databases like, Marketline Business Information
Center (MBIC), Economic Intelligence Service (EIS), Prowess and ProQuest are each are used at four libraries comprising of 13% while, Science Direct is used by only two libraries comprising of 7% (Table-44). Thus, it is deduced that, use of online databases is noticeable in selected leading B-School libraries of the state.

5.2.4 CD/DVDs are used considerably well in B-school libraries of Orissa as evident from the opinions of 70% of librarians while, the use of e-articles are opined by 37% of the librarians followed by 33% each use intranet databases and online newspapers. Surprisingly, E-books, and ETDs are used by a few librarians (17% each) of the B-school libraries which unfolds the fact that, B-school libraries of Orissa are not well versed with the acquisition and content dissemination of e-books and ETDs (Table-45) more effectively.

5.2.5 It is found that, premier search engines like, Google (95.9%), and Yahoo (83.7%) are frequently used by the faculty members. Concomitantly, students too use Google (88.5%), and Yahoo (79.7%) frequently in conjunction with MSN (66.1%) (Table-87 & Table-88).

5.2.6 In regard to use of websites, it is found that, nseindia.com is the most preferred website among the users of B-schools of Orissa as it accounts 67% of opinions of librarians. Similarly, 53% of librarians are of opinions that they pay equal attention to the use of three other websites namely, outlookmoney.com, economictimes.indiatimes.com and www.businessstandards.com. On the otherhand, 47% of librarians opine that users pay equal attention to the use of two other websites namely, moneycontrol.com, and reidiff.money.com while, use of ft.com/India is opined comparatively less (40%). However, there is a very meager opinion on use of websites like, www.cantos.com, www.answers.com, and www.profound.com constituting 23%, 20%, and 13% respectively. Taken as a whole, it is observed that, the users of B-school libraries are very well acquainted with some of the leading websites in order to keep abreast of day to day business trends of the world market (Table-47).

5.2.7 It is found that, use of e-resources (65.1%) by the faculty is found more compared to their print equivalents (44.9%). In contrast, the use of printed materials (56.3%) is yet found to be a viable option among the students in comparison to e-resources(43.7%) (Table-91 & Table-92).
5.2.8 It is evident that, most of the B-school librarians stand apart from use of e-resources. An aggregate of 40% of respondents opine that, online journals, and e-articles are frequently used among the students. Moreover, online databases are also found to be frequently used by the students as visible from the opinion of 33% of respondents while, CDs/DVDs, and e-books are viewed as rarely used e-resources among the students as evident from the opinion of 53%, and 44% of librarians against the respective cases. However, there is a very poor opinion about the frequency of use of ETDs and e-newspapers among the students (Table-49). On the contrary, online journals, and e-articles are frequently used among the faculty members in 12 libraries as evident from the opinion of 40% of the librarians; followed by online databases, and ETDs in 33.3% and 30% among the faculties of B-school libraries of Orissa. However, 27% of librarians express that, e-books are frequently in use which is presumed to be less. Similarly, the use of CDs/DVDs and other e-resources are less frequently used (23%) by the faculty members whereas, online newspapers are distinctly found to be rarely in use by the faculty members as evident from 36.5% of the opinions of librarians (Table-50).

5.2.9 Majority (64.3%) of faculty normally spend 2-4 hours, daily on the use of e-resources. Similarly, maximum number (47.4%) of students prefer to use e-resources 2-4 hours, daily (Table-93 & Table-94).

5.2.10 As regards to budget provision, the study reveals that, majority of libraries (67%) do not have any budget provision for the procurement and maintenance of e-resources. However, 10(33%) librarians have clearly expressed that they have got specific budget with an exclusive provision for investing on e-resources and services which is no doubt a positive sign. Further analysis indicates that, only three libraries (10%) invest 1-2 lakhs, and one library upto 5 lakhs for the provision of e-resources and services while, six libraries (20%) more than 5 lakhs of their respective budgets on the provision of e-resources and services(Table-59 ).

5.2.11 In regard to the procurement of specific class of e-resources, the study reveals that, 10 libraries invest their e-budget mostly on procurement of e-resources and participation in different consortiums which appear to be a healthy trend for the maximization of e-resources and services. Concurrently, 27% of the libraries extend
their e-budget on Database contacts, and increase of support staffing, while digitization of conventional documents and Maintenance of e-resources are given less priority (*Table-60*).  

**5.2.12** Interestingly, vast majority (87%) of respondents opine that their respective libraries are equipped with computers. Moreover, it is found that majority of libraries (50%) have 1 to 5 computers and 6(20%) libraries have more than 5 computers and 5 libraries (17%) have more than 10 computers(*Table-62*). However, B-School Libraries should ensure 1:1 computer facilities to their respective users to keep the emerging competitive edge of the corporate sectors.  

**5.2.13** Fascinatingly, space required for the use of computers is not at all a problem with the B-school librarians as evident from the views of 93% of respondents. At the same time, a vast majority of respondents opine that they have the provision of photocopiers (87%), and printers (83%) with their respective libraries. However, the most essential requirements for the effective use of e-resources like, provision of LAN connection, and OPAC/Web OPAC are just marked by 47% and 40% of the librarians respectively. Furthermore, scanners are just found in 6 (20%) B-school libraries. Thus, it is very clear that, B-school libraries of Orissa are lagging behind the right kind of infrastructure required for facilitation of effective e-information services(*Table-63*).  

**5.2.14** In regard to user orientation as an instrument for optimal use of library resources, it is found that, 43% of the respondents view that they undertake periodic orientation programs to instruct the users how to avail electronic information services. Additionally, 37% of librarians opine that they provide links from different library home pages so that users can identify and access from different sources other than their respective libraries. However, some of the librarians (30%) prefer to acquaint their users the arrivals of recent e-literatures through e-mail/intra-mail services. On the contrary, instruction to the users through posters, guides and tutorials are noticed less in practice in the libraries of Business Schools in Orissa (*Table-64*).
5.2.15 In regard to use of PCs and Laptops by the respondents the study reveals that, students pay almost equal importance towards the use of personal computers (54.7%) and laptops (53.1%). Concurrently, only 14.1% respondents opine that they do not use any ICT Devices. The use of other ICT Devices that might include Palm tops, O/S based mobile sets, e-book readers etc. is found quite negligible (8.3%)(Table-65). However, a majority of faculty members in B-Schools under survey use personal computers (74.5%) while, the use of laptop comes to a moderate response of just 35.7% (Table-66).

5.2.16 In regard to the use of ICT Devices by students, the use of said devices in Internet Lab(44.8%) is found more, followed by ‘Any where on campus’(42.2%), and Library(35.9%) while, use of ICT Devices in other different places is found minimum (7.3%). Thus, it is presumed that, students could be using laptops anywhere on campus via wi-fi internet network (Table 4.28). However, faculty members use various ICT Devices primarily in their respective departmental offices (80.6%), followed by Internet Lab (57.1%), and Library(51%) while, the use of ICT Devices anywhere on campus (18.4%) by faculty members is found quite negligible(Table-67).

5.2.17 In regard to the use preference of e-resources, the study clearly depicts that, students opt their high preference for the use of e-journals (63.5%); followed by e-books (65.1%); e-news papers (53.6%); and e-reports (53.1%) while, least importance is given towards the use of ETDs (32.8%)(Table-71). However, faculty members pay high preference to the use of e-articles (72.4%), followed by CD/DVDs (71.4%), and e-journals (67.3%) and least preference towards the use of ETDs (28.6%) (Table-72) which is quite surprising.

5.2.18 As regards to the specific form or class of e-resources the faculty members prefer, the study reveals that, electronic information services in the form of e-articles (72.4%) and e-journals (67.3%) are most popular among faculty members. However, there is a very poor opinion about the use of ETDs (Table-72).
5.3 Testing of Hypotheses

As hypotheses are considered as the primary instruments in research for suggesting new experiments and observations, the testing of formulated hypotheses for this study became imperative. The results are given as follows:

Hypothesis 1

The hypothesis that, "Even though, e-resources cannot be considered as a viable substitute for their printed equivalents, there might be a growing need for electronic resources par with their printed counter parts owing to their easy and quick accessibility nature." has come true, as evident from the responses of the users that, the use of e-resources (65.1%) by the faculty is found more compared to their print equivalents (44.9%). In contrast, the use of printed materials (56.3%) is yet found to be a viable option among the students in comparison to e-resources (43.7%) (Table-91 & Table-92) which implies that, the use of e-resources among the users is no less demanding than that of their print equivalents.

Hypothesis 2

The next hypothesis that, "The users of B-Schools must be spending at least 1-2 hours on an average, in the institute's internet Lab for browsing different e-resources available online pertaining to their respective area of research/study" comes true, as it is found that maximum number of faculty members (64.3%) and students (47.4%) use e-resources about 2-4 hours on an average daily (Table-93 & Table-94).

Hypothesis 3

The hypothesis that, "The users of B-Schools must have been well-acquainted with the use of popular search engines like, Google, Yahoo, etc. since internet becomes the medium and the main gateway to access to e-resources" has also come true, as it is found that, premier search engines like, Google (95.9%), and Yahoo (83.7%) are frequently used by the faculty members. Concomitantly, students too use Google (88.5 %), and Yahoo (79.7 %) frequently in conjunction with MSN (66.1%) (Table-87 & Table-88).
Hypothesis 4

The hypothesis that, “Majority of the students might be seeking the help of e-books, e-journals, and e-articles, compared to other e-resources/form of documents, for supplementing their academic assignments so as to fulfill the needs of their course curriculums” comes true, as it is found that students opt their high preference for the use of e-journals (63.5%) followed by e-books (65.1%), e-news papers (53.6%), e-reports (53.1%), and e-articles (46.4%) while, less importance is given towards the use of other e-resources (Table-71).

Hypothesis 5

The hypothesis that, “Majority of the libraries of B-Schools in Orissa must be subscribing to online e-journals and databases in the field of management and business studies compared to other e-form of documents as well as other disciplines”, however proved hollow, as it is evident that, CD/DVDs are available in 57% of the B-school libraries of the state, followed by e-newspapers (37%), online journals, e-books, and ETDs (33% each) while, online databases and other e-resources are available only in 9 B-school libraries constituting of 30% each. This indicates that subscriptions of e-journals and online databases are not up to the mark (Table-42).

Hypothesis 6

The hypothesis that, “Most of the B-Schools must be having ideal infrastructure, well furnished computer labs with LAN connection to the library server to provide effective electronic information services to their users” appears false, as it is found that, the most essential requirements for the effective use of e-resources like, provision of LAN Connection, and OPAC/Web OPAC are just marked by 47% and 40% of the librarians respectively. Furthermore, scanners are just found in 6 (20%) B-school libraries. Thus, it is very clear that B-school libraries of Orissa are lagging behind the right kind of infrastructure required for facilitation of effective e-information services (Table-63) to their clientele.

Hypothesis 7

The hypothesis that, “The knowledge centers of B-Schools who are avoiding using electronic resources could be, either due to lack of computer facilities or adequate budget rather than their ability to handle and utilize the e-resources and
has come true as it is evident that majority of libraries (67%) do not have any budget provision exclusively for the procurement and maintenance of e-resources yet (Table-59) which possibly hinders the development of e-resources and services in Business Schools of Orissa.

5.4 Problems and Constraints Encountered By The Respondents

The Librarians of Business Schools of Orissa were asked to comment on the problems and constraints encountered by them in their professional practice through an open ended questionnaire. One librarian reported that, when he sought permission from his Center Head for starting an electronic dissertation project for his library, his proposal was turned down. Another respondent wrote, “I took an initiative to convince my Director to participate in some e-journal consortium, but I was jibed that it would happen in future. A few respondents reported that they do not have a defined annual budget for e-resources and services in their respective Library budget. Some other respondents reported that their users do not express much interest in reading e-resources, therefore, their respective managements take less interest in e-subscriptions.

5.5 Constraints Encountered in the Process of Investigation

During the course of research, the investigator encountered a lot of constraints, out of which four major constraints faced by the investigator that need to be reflected for the guidance of future researchers are given below:

First, once the topic/area of research was selected, the investigator undertook an exhaustive literature search. Surprisingly, none of the studies were found to have been undertaken exclusively on adhibition (use) of electronic resources in B-School libraries of any part of the world. Non-availability of similar studies, therefore, posed certain problems for the research scholar while preparing the text.

Second, For assessing users’ awareness and use habits of e-resources, use of search engines, use of online databases, and their opinions on availability of e-resources, e-equipments and infrastructure, etc. two questionnaires were structured (one for the librarian, and the other for the users) by the research scholar with the active and able guidance of the supervisor. However, till to bring the final get-up of the questionnaire, it took a lot of time. The task underwent for criticism, correction, addition, deletion, and revision in consultation with some of the experienced practicing librarians of B-School libraries of the country through e-mail so as to make the questionnaires free from errors.
Third, it took a fair amount of time to deliver the questionnaires personally to the respondents at their respective B-Schools geographically scattered all over the state. A few respondents left some questions unanswered and some other denied to respond to the questionnaire which posed a little bit problems to the progress of work. However, the investigator could overcome the problem once the respondents were convinced about the mission of the research endeavor.

Fourth, Time and Money are two big factors for any kind of research. Due to paucity of time, even the research scholar though had an initial aspiration for undertaking a comparative study of use of e-resources of B-Schools of Orissa with one of its neighboring states, it could not be materialized. Moreover, financial constraints dragged the high ambition of the research scholar to limit the scope of the study.

However, inspire of the afore-mentioned constraints, the research scholar has tried his best to overcome the problems to the extent possible so as to reflect better result through the process of research.

5.6 Suggestions and Recommendations Made by the Respondents

The vast experience of library personnel in handling the varied users, from simple to complex and from light to serious on, has been evaluated and their constructive suggestions for promoting effective electronic information services are expressed as under:

- Library planners, administrators, policy makers, and information professionals should come forward to invest a larger chunk of their respective budget for procurement of e-journals and online databases so as to enhance and optimize the use of e-resources and services;
- Budgeting provision for subscription of online journals on sharing basis through e-consortiums should be looked into;
- Increasing the scope for online resources with vast infrastructure for the successful implementation of all ICT related services in the libraries of Business Schools;
• Extending hands for more co-operation among Library and Information Centers of the State for information sharing including large academic libraries;

• Digitization of holdings of journals (back volumes) with html/ pdf file, of course, with necessary copyrights permission from publishers;

• Formation of appropriate consortiums of Business School libraries in Orissa for subscription of foreign journals, exclusively in the field of Management and allied disciplines to facilitate resource sharing;

• Creating scope for offering Digital Inter Library Loan (DILL) facilities to the users on demand;

• Need for formulating new strategies for searching literature easily and most conveniently in digital format on web;

• In the exclusive field of Management, a powerful search engine, if at all possible, needs to be developed; and

• Electronic gateways managed by Libraries should evolve methods for sharing of information amongst themselves;

5.7 Additional Suggestions Offered by the Investigator

The investigator feels to provide the following suggestions for the improvement of e-resources and services of B-School libraries of the state:

(1) All the Business School libraries of Orissa should be encouraged and provided adequate support by their respective managements to develop websites, including links to internet resources to meet the e-information needs of the users;

(2) There must be a balance of funding between electronic, and hardcopy resources;

(3) Budget provision of each Business School of Orissa should be augmented with a view to increase the procurement of several electronic databases useful and pertinent to the scholastic needs of the students, and faculty members of respective Business schools;

(4) Libraries should impose time, place or manner restrictions to the use of electronic equipments; and

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(5) Librarians should conduct periodic orientation programmes for the users providing criteria, process, and procedures for retrieving electronic documents smoothly and successfully.

5.8 Schema for Business School Libraries of Orissa Network (BSLONET)

Fig 5.1 Schema for BSLONET

BSLONET Server  Business School
• BSLONET will monitor all the financial matters, annual subscription and organization of e-resources, database security, users access and authentication.

• BSLONET server will be centrally located and hosted in a webserver.

• Membership will be restricted initially only among the Business School libraries of Orissa.

• Only the registered members will have the access to their choice e-databases/journals depending upon the agreement with BSLONET.

5.9 Area for Further Study

Due to paucity of time and some other constraints, the investigator could not make the study more elaborative and comprehensive which could have yielded some exhaustive and effective results for generalization. Therefore, the investigator feels that the scope of research could be further expanded and elaborated in future in the following areas:

5.9.1 In addition to selected e-resources, some more resources may be taken into the purview of research;

5.9.2 The study could include all the Business Schools of the country in its scope; and

5.9.3 A comparative study of use of electronic resources by the users of management studies with the users of some other branch of knowledge may be carried out to elicit some tangible comparative output for effective generalization.

After having all-encompassing concluding discussions, the investigator now feels to provide further authentic links to different parts of the work with adequate supports of Bibliographies, appendices and indexes that are appended at the end. The entire thesis is supported by a total of 337 bibliographical references (that include 254 periodical articles, abstracts of 9 doctoral theses, 47 books, 27 conference/seminar papers, and 140 websites and 2 questionnaires along with list of B-Schools and Respondents included in the survey.)