# Research Activities of Library and Information Science Professionals in Indian Higher Educational Institutions: Competencies, Support and Engagements

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**ABSTRACT**

The present study is an attempt to understand the research attitude, engagement and competencies of LIS professionals in higher educational institutions in India. It was found that out of 170 respondents, 145 (85.3%) respondents read research literature regularly and 75 (44.1) expressed that reading research based articles is their regular activity. But 95 (55.9) do not read journal articles. 155 (91.2) respondents revealed that they have conducted research after obtaining the formal degree. Majority of respondents 47 (27.6) revealed that their preferred mode of dissemination of research has been publishing paper in conference proceedings, followed by publishing a paper in refereed journals 35 (20.6). Maximum respondents 72 (40.0) followed a theoretical approach in conducting research, followed by survey method 55 (30.6). 'E-resources' (160) and 'Bibliometric Study' (120) has been the most preferred areas of research publishing. 'Lack of funding support' (160), 'time constraints' (155) and 'Problems in data collection' (150), have been identified as major constraints in carrying out research. The main purpose for conducting research is to find the academic performance indicators (APIs) 150, followed by personal growth (102). The study suggests that funding agencies and universities need to come forward to encourage LIS professionals to pursue research and publishing. This will add value in delivering the best library services to academic community and also improve research activities in academic institutions.

*Keywords:* Research competencies, research involvements, librarians, research activities, universities, India

## 1. INTRODUCTION

Professionals have been arguing for long whether library professionals should pursue publication despite heavy professional and administrative responsibilities. Some people believe that librarians are ill-prepared for conducting research and enormous work pressure does not allow them to conduct research. Undoubtedly, conducting research by library professionals is crucial and utmost needed to enhance day to day problem solving and better decision making in libraries. In addition, it makes librarians critical consumers of research publications and equips them to provide efficient information services to research scholars and faculty members. Therefore, hindrances faced by academic librarians need to be identified to overcome their problems. It is essential for academic librarians to read and apply the findings of the study in daily library operations. It is also imperative to know whether exiting research literature impacts their own area of study. Academic librarians consider and ponder upon their own work and the research questions that arise. Librarians must strive to bridge the gap between research and practice so that library resources can be utilised optimally and users can get the best services. Library and information science research is equally important for the education system and the growth of LIS research. Majority of research conducted in the field are published in National journals. For global visibility, research in the subject should be published in International journals as

well[4]. We need to enhance the engagement of practioner librarians in contributing to research publication. It will help us minimise the gap between research and practice. Supporting the research of academic librarians is important and strongly recommended by professionals. Studies reveal that research helps librarians in career development. The present study is an attempt to understand the attitude and engagement towards research among library professionals in academic libraries in India.

## 2. LITERATURE REVIEW

Several studies related to library and information science research, research skills and attitude of librarians were reviewed. Berg, Jacobs Cornwall[1] discussed about viewpoint of library administrators in Canadian Association of Research Libraries (CARL) regarding research in library functioning particularly in academic librarianship. The study found that university librarians' expectations from research are inconsistent and only a few institutions provide documentation outline in a formal way. Furthermore, the study found lack of understanding among library professional about the recent research practices occurring across Canadian academic libraries. Bolin[2] found in her study that some librarians consider demands of research writing irrational and tedious. Furthermore, it states, 'a contingent of authors and librarians feel librarians are ill-prepared to take on research due to lack of education in research skills'. The major reason of lack of research

is heavy workload at workplace. Powell, Lynda & Joseph[3] identified that lack of time, lack of training in research methods, lack of institutional support and research funding are identified the major inhibits library professionals confront in conducting research. The study suggested overcoming these barriers so that librarians can be motivated to conduct research. Tumbleson & Burke[4] opined that there is lack of formal collaboration and communication among LIS teachers and practicing librarians. Hence, the study suggested that the collaboration must be enhanced so that research in the field of LIS may be accelerated with major contribution from practicing librarians. Mittal[5] conducted a study to know the research trends in the field of LIS during 1990 to 2010. The study analysed the co-occurrence of 4735 descriptors in 1408 journals and found that a topic of high activity has significant implication in planning library services.

Sarah[6] conducted a study in public universities in Nigeria and found that librarians publish maximum research in International journals rather than local. The major motivating force behind research publishing of librarians is career promotion. Further, the study found several hindrances faced by librarians in publishing such as, (i) lack of interpretation skills, (ii) exorbitant publication fees by journal outfits and (iii) indiscriminate rejection of manuscripts by journals. The study suggested organising data analysis training programme for librarians from time to time. Koufogiannakis & Crumley[7] postulated that certain areas in the LIS have evidence based research publications but more work needs to be done so that practioners can take decisions based on evidence. Furthermore, the study identified lack of time as one of the major problems faced by librarians in conducting research. It further suggested that every library professional has a part to play in building an evidence base. Research outcome in the field is directly relevant to their decision-making needs.

Ogbomo[8] revealed that heavy demands of daily work routine, journal rating, lack of research orientation, academic freedom and lack of interest are major difficulties limiting publication output of librarians. Wilkinson[9] supported the research outcome of Ogbomo's study which found that librarians often do not research, major inhibiting factors being lack of time and lack of research skills. The study suggests that time management and collaboration can help to overcome these barriers. Verzosa[10] expressed that it is vital for librarians to engage in research because it adds value to librarianship. The author further stated that the quantum of research in librarianship is disappointing and there is a shortage of research-oriented librarians. Ocholla, Ocholla & Onyancha[11] revealed that visibility of the research outcomes of academic librarians is poor. Publications of librarians and directors of libraries in universities are few. Majority of librarians prefer to publish research individually rather than conducting research in groups. Bresnahan & Johnson[12] suggested

training in research data topics on priority basis, addressing hands-on methods for librarians. It can help librarians to develop tangible skills which help them in individual outreach activities.

## 3. OBJECTIVES

The objectives of the present study are to:

(i) Gauge the level of their research competencies

(ii) Understand the problems faced by them in conducting research

(iii) Understand their attitude to conduct research

(iv) Identify the major intentions of conducting research

(v) Understand the research support available to them

(vi) Suggest ways to overcome barriers in conducting research.

## 4. METHODOLOGY

An online survey was conducted using a structured online questionnaire circulated among LIS professional in academic institutions in India. The questionnaire was distributed during July 2014 to April 2015 among the selected group and completed by the end of May 2015. Questionnaires were distributed through all the major forums and Facebook groups. Total 170 filled-in questionnaires were received back by the investigator. The online questionnaire was designed using Google. Doc platform. Two questionnaires used in the studies of Kennedy & Brancolini[13] and Berg, Jacobs & Cornwall[15] were referred to prepare the final questionnaire. Majority of questions in the questionnaire have been taken from these two studies. Simple Percentage method was used to analyse the data collected. Questionnaire used dichotomous, multiple choice and open-ended questions.

## 5. LIMITATIONS OF THE STUDY

The study covers library professionals working at various levels in higher educational institutions. It does not categorise the perceptions of different levels of librarians. There could be differences in the perceptions of different levels of librarians such as, Chief Librarians of the University, Deputy Librarians, Assistant Librarians, College Librarians, etc., The survey was conducted using an online questionnaire designed using Google -Doc spreadsheet. The survey could collect only 170 responses from library professionals working in higher educational institutions. (It may be noted that there are more than 35,000 colleges and 750 universities in India). The questionnaire used in data collection does not facilitate respondents to explain anomalies in obtaining research assistance such as, funds, study leave, etc., The responses of the questionnaire do not represent all states of India. In addition, the study used a simple percentage method in data analysis. Other statistical tools have not been

used to correlate the results.

## 6. ANALYSIS AND INTERPRETATIONS

All the 170 questionnaires received from the respondents were selected for analysis and interpretation of data. Responses to 15 questions were analysed and are presented in the form of Tables and Figures using different simple percentage methods.

### 6.1 Reading Research Literature

Reading research literature is crucial for librarians. Literature reading helps the librarians to understand recent trends. In addition, it also helps to understand the latest technology implemented in various libraries. Therefore, a question was posed about reading research literature by librarians. The dataset was analysed and is presented in Fig. 1. 145 (85.3%) respondents stated that they read the literature and 15 (8.8%) revealed that they do not read research literature. Besides this, 10 (5.9%)
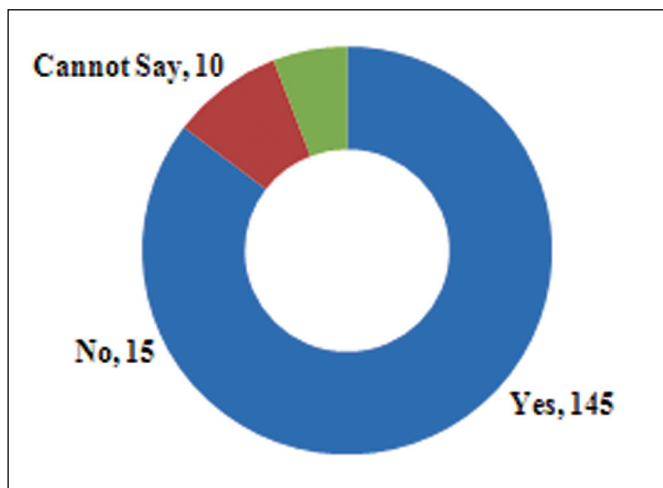


Figure 1. Reading research literature.

respondents did not note their response about reading literature.

New academic librarians are not aware of publications of great importance that can help them to be good academic librarians. In fact, professionals are not prepared for the queries and hurdles they may face after joining the library in higher educational intuitions. Therefore, library professionals must read the relevant research literature so that they can help users and handle challenging situations.

### 6.2 Preference in Spending Time Reading Research Literature

A question was asked to know the respondents' preferences in spending time to read research literature in the field of LIS. Analysis of responses revealed that 155 (91.2%) respondents preferred spending time in reading research literature while 10 (5.9%) stated that they do not read research literature. 5 (2.9%) respondents gave no comments about this (fig. 2).
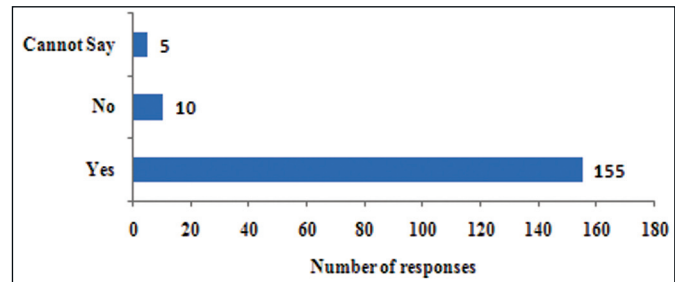


Figure 2. Preference in spending time reading research literature.

### 6.3 Reading the Table of Contents

Another question was asked to respondents on whether they read the Table of Contents (TOC) page. Table of Contents helps to understand the coverage of journals and books. Reading the same can assist librarians to answer queries of users. It was found that 120 (70.6%) respondents read the Table of Contents and 44 (25.9%) do not read TOC. One of the respondent answered, 'do not know'. (Fig.3)

### 6.4 Reading Journal Articles on Regular Basis

Reading journal articles regularly helps library professionals to keep abreast of recent developments. Therefore, it was asked whether the respondents read the journals articles on a regular basis or not. It is shows that 75 (44.1%) respondents read research based articles on a regular basis while 95 (55.9%) do not read journal articles. It is surprising that more than 50% of the respondents do not read journal articles on a regular basis. However, it is very crucial for any professional to
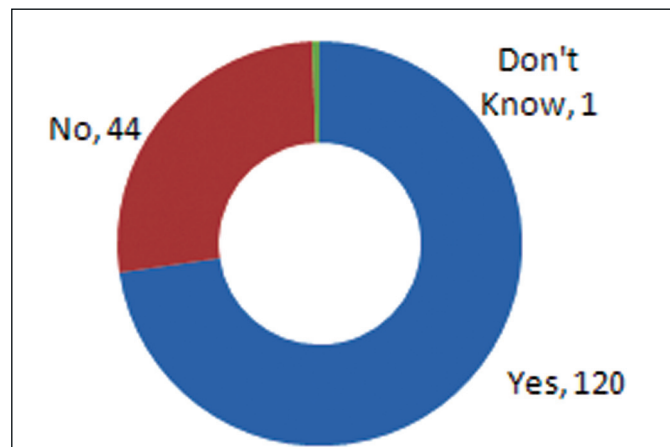


Figure 3. Scanning of 'tables of contents'.

keep up to date about recent developments in the field. It can be generalised from the dataset that a major reason of not being up to date in the field themselves is that they do not read journal articles.

### 6.5 Major Reasons of not Reading Research Articles

Respondents were asked about the major reasons of not reading research based articles. The responses

received were analysed and are shown in Fig. 4. Majority of respondents (36) stated that they do not have time to read research based articles, followed by other reasons (18), LIS users these that prefer to read essays, opinions, etc., In addition, (12) respondents revealed that they do not consider reading research based articles, followed by do not have expertise in research methods (8). Further, 6 respondents revealed that librarians are not expected

than 5% respondents revealed that they have conducted research through research projects funded by some agency. Therefore, it is clear from the study that only a few professionals have research projects.

Further, respondents were asked to specify the preferred mode of research dissemination. The responses were analysed and are shown in Fig. 5. Majority of
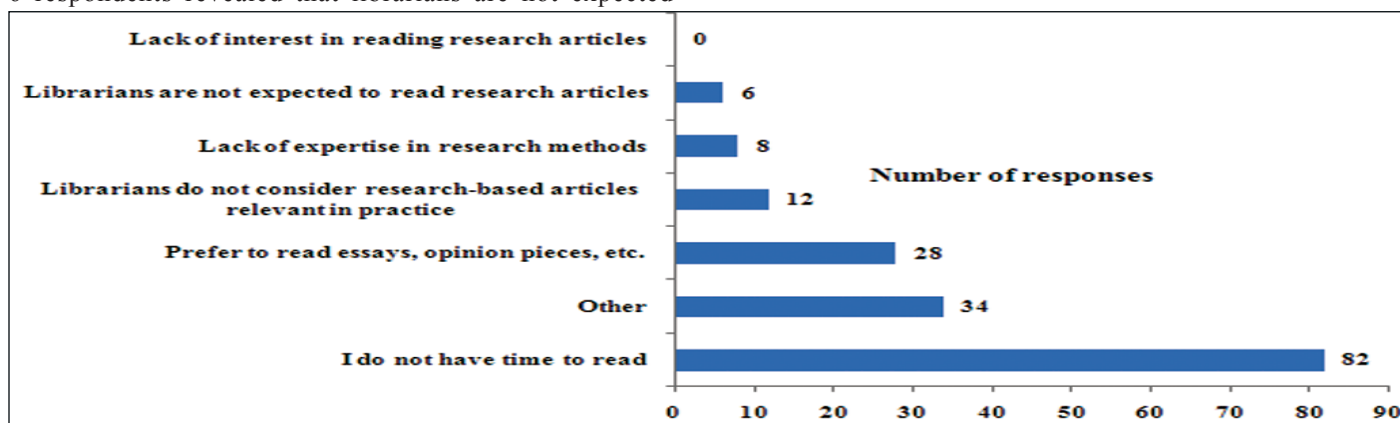


**Figure 4. Major reasons of not reading research articles.**

to read research based articles.

## 6.6 Conducting Research After Obtaining Master Degree

Continuous lifelong learning is essential for advancement. Conducting research after obtaining a formal degree helps fellow librarians to follow progress in the field. Research publications of librarians assist LIS professional working in other libraries to counter and solve problems in efficient ways. Therefore, it was asked from respondents whether they have conducted research after obtaining the formal degree. It was found that 155 (91.2%) respondents revealed that they have conducted research after obtaining the formal degree while 15 (35.3%) stated they have not conducted any research after obtaining the formal degree. Majority of respondents (95%) stated that they perused M.Phil and PhD and have written research articles in conference proceedings and journals. However, less

respondents 47 (27.6%) stated that they have conducted surveys and published in conference proceedings, followed by published paper in refereed journal 35 (20.6%), presented at a national conference 30 (17.6%), published in non-refereed journal 15 (8.8%), published a book solely or co-authored 9 (5.3%), published a book chapter 8 (4.7%), presented at a regional conference 8 (4.7%), presented at home institution in a formal forum 8 (4.7%). Besides this, 10 respondents mentioned other modes of dissemination of research but did not reveal which in the questionnaire.

## 6.7 Methodology Used in Conducting Research

Over the years library science has evolved dramatically. Several types of research methods have been used by library professionals. Data, indicators and types of methodology being followed do not always render potential solutions to the identified problems. Hence, LIS needs methodological developments so that the
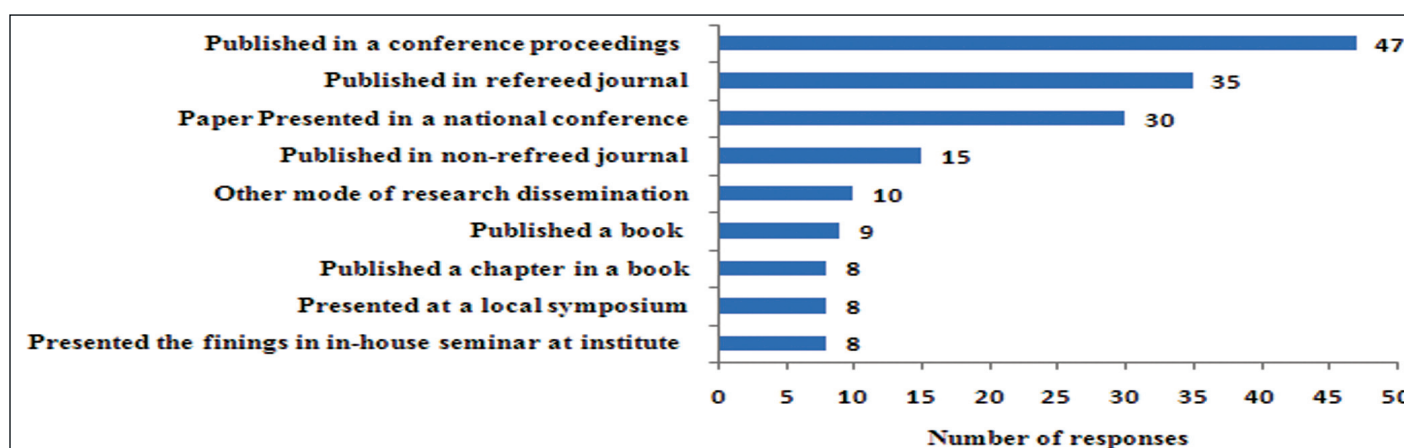


**Figure 5. Mode of dissemination of research.**

nature and characteristics of the Science in different parts of world can be understood. The subject has been linked to descriptive methodologies, channeled to meet the confronts of professional practice.[14]. A question was asked in the questionnaire about which methodologies they followed most in conducting research. It was found that majority of respondents 72 (40.0%) followed the theoretical approach in conducting research, followed by survey method 55 (30.6%), content analysis 33 (18.3%), interview18(10.0%) and experiment 2 (1.1%). The findings are supported by the study of Chu[15] wherein the author reported that content analysis, experiment and theoretical approach have become the top choices in LIS research compared to questionnaire survey and historical method, which dominated literature in the field. Respondents were asked preferred areas of research. Table 1 below shows that 'E-resources' (160) is the most preferred area of research in publishing, followed by 'Bibliometric Study' (120), 'Information seeking behaviour' (110), 'User studies' (100), 'Information system' (99), 'Social networking sites' (90), 'ICT in libraries' (89), 'Academic libraries' (80) and 'LIS education' (80).

## 6.8 Intention Behind Research and Publishing

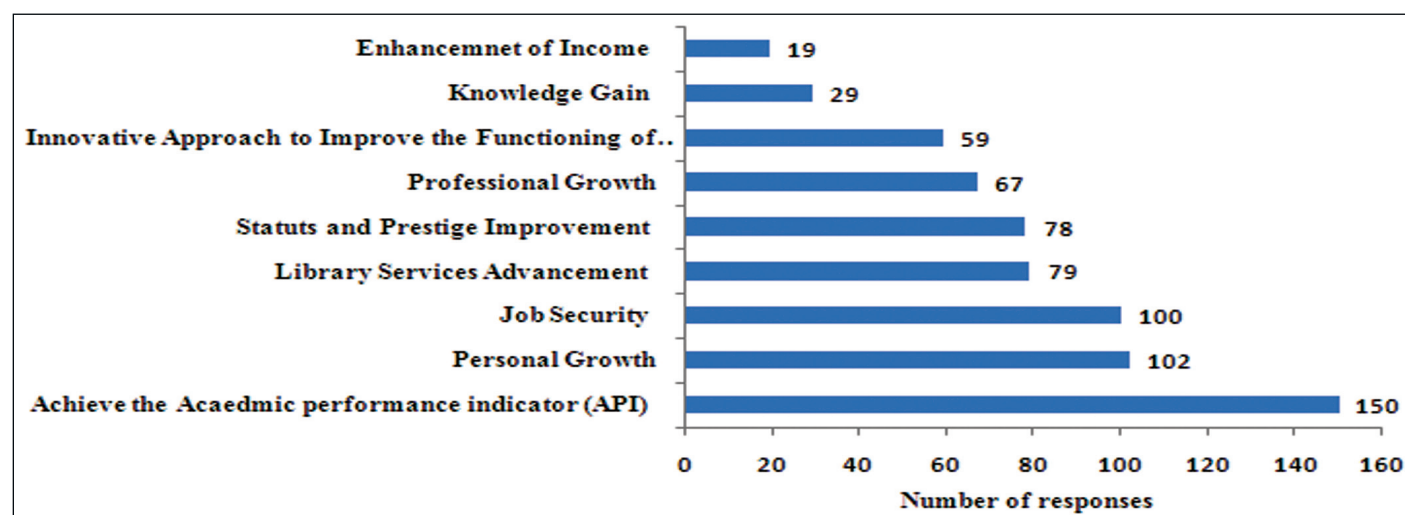In the questionnaire, respondents were asked to reveal the purpose of publishing research. In Fig. 6. multiple

**Table 1. Preferred research area in publishing**

| S.No | Most popular area of research | Number of responses |
|------|-------------------------------|---------------------|
| 1.   | E-resources                   | 160 |
| 2.   | Bibliometric study            | 120 |
| 3.   | Information seeking behaviour | 110 |
| 4.   | User studies                  | 100 |
| 5.   | Information system            | 99  |
| 7.   | Social networking sites       | 90  |
| 8.   | ICT in libraries              | 89  |
| 9.   | Academic libraries            | 80  |
| 10.  | LIS education                 | 80  |

answers were allowed. The intension of research and publication helps us to understand the level of motivation. The respondents were allowed to tick multiple options provided in the questionnaire. It was found that for majority of respondents, the intension in conducting and publishing research was to achieve academic performance indicator (API) 150, followed by Personal growth (102), Job security (100), Library services and advancement (79), Status and prestige improvement (78), Professional growth (67), Innovative approach to improve the functioning of library (59). Besides this, Knowledge gain (29) and Enhancement of income (19) are the lowest intension and motivation force to conduct research and publishing. Fox[16] also asked this question in their study to ascertain the major motivation force behind research and publishing of librarians. The outcome of this study revealed that promotion or tenure is the major factor in conducting research and publishing. In the present study, the main factor identified is to achieve API to get promotion. Therefore, the outcome of the two studies supports the results.

## 6.9 Problems Faced in Conducting and Publishing LIS Research

Library professionals face several problems in conducting research. They have been complaining that the facilities provided to them in research are limited. Therefore, a question was posed in the questionnaire to know the constraints being faced by librarians in doing research and publishing it. Ten options were given to the respondents in the questionnaire to reveal the major hindrances they encounter in conducting and publishing research. Respondents were allowed multiple answers. Fig.7 below shows that Lack of funding support (160) is the major constraints followed by Time constraints (155), Problems in data collection to do the research (150), Data analysis using statistical tools (120). A considerable number of respondents reported problem in writing the research outcome (100) and Research experience constraints (79). In addition, other problems revealed by respondents were



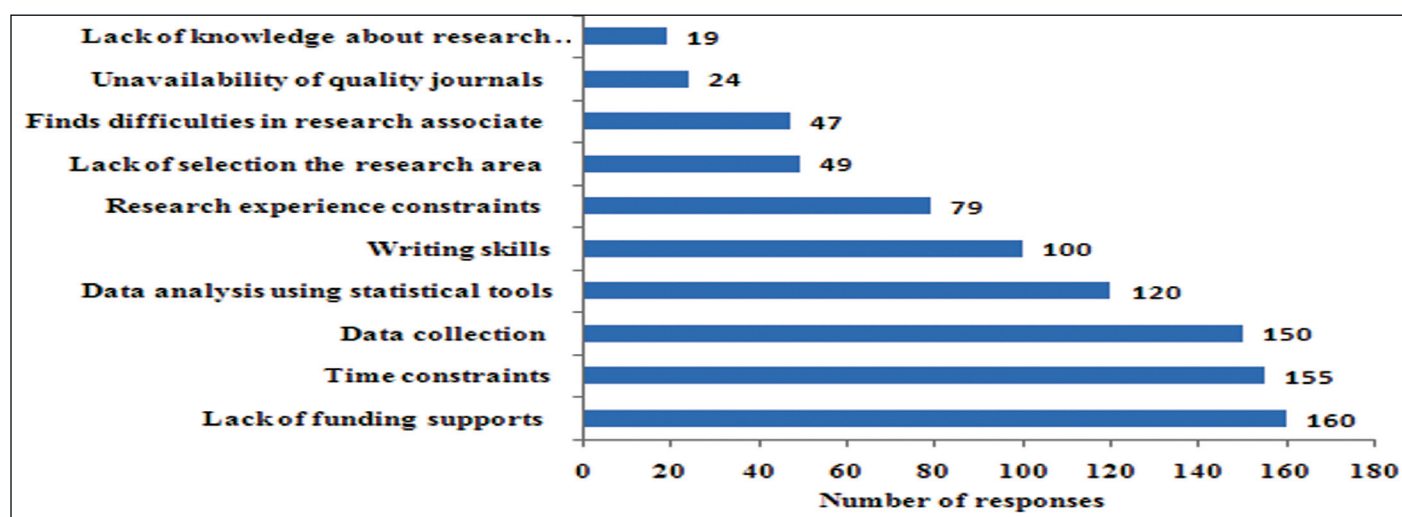**Figure 6. Major intentions in research and publishing.**

**Figure 7. Problems in conducting and publishing research.**

lack of selection in research area (49), Difficulties in research associate (47), Unavailability of quality journals (24). The lowest number of respondents said that they face difficulty in conducting and publishing research because of lack of knowledge about research (19).

Limited financial support is available to Indian librarians. Ministry of Human Resources Development must consider this and provide financial support to librarians in research projects.

### 6.10 Support Available to Academic Librarians

The study also identifies the support available to librarians working in higher educational institutions as shows in Fig. 8. Fennewald[17] described that librarians without formal research training learn and do research with the help of colleagues. Therefore, a question was added in the questionnaire to know support available to academic librarians. It was found that Funding to present the research paper (139) was the support available to majority of respondents, followed by provision of sabbatical leave (120), Provision of study leave (119), Provision of travel grant (110), Training of research methodology (67), Time to do research (39), Support of peer group (29), Research funding by other universities (19), Research funding by university (9). Interestingly,
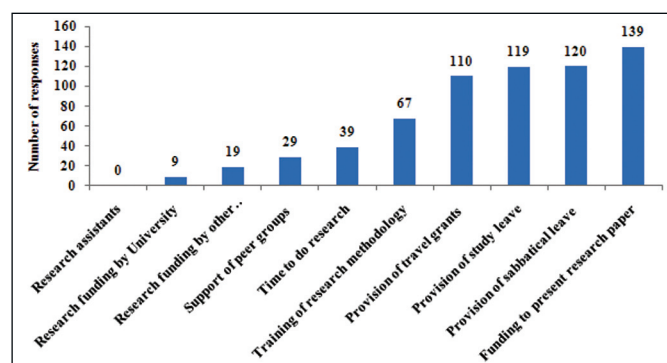


**Figure 8. Supports available to librarians in higher educational institutes.**

none of the respondent stated that they have research assistants to conduct research.

### 6.11 Level of Research Collaboration

Collaboration with other professionals for conducting research is essential to foster growth of literature. It also helps to develop innovative approach in research and blend different ideas of researchers. In order to understand the level of collaboration, several authorship patterns studies have been conducted around the world. A question was asked to know the level of collaboration among LIS professionals to do research and publish it. Respondents were allowed to tick multiple answers. It was asked first whether they carried out any research project (Yes/No). Secondly, it was asked whether they published papers in collaboration. It was found that majority of respondents conducted research projects individually 39 (22.9%). However, 131 (77.1%) revealed that they have not carried out any research project so far. Further, the study also sought responses about authorship pattern. The responses received through the questionnaire were analysed and are presented in Table 2 shows that maximum number of respondents stated that they conducted the research individually as sole researcher 130, followed by double authored 115, three authors 50, four authors 5. Surprisingly, none of the respondents revealed about their association in publishing paper having five or more authors.

**Table 2. Authorship pattern in research publishing**

| S. No | Authorship in published research | Number of responses |
|-------|----------------------------------|---------------------|
| 1.    | Single author                    | 130                 |
| 2.    | Double authors                   | 115                 |
| 3.    | Three authors                    | 50                  |
| 4..   | Four authors                     | 5                   |
| 5.    | Five authors or more             | 0                   |

*Note: Number of the responses shown are higher than the total number of respondents because respondents were allowed to tick multiple options.*

The outcome of the study is supported Thavamani[19] wherein it is found that majority of research published by librarians are single authored 144 (41.9%), followed by two authors 102 (29.7%), three authors 60 (17.5%).

## 6.12 Popular Journals Among the Professionals

Respondents were asked which journals they read the most and used in publishing. Dataset was analysed using number of responses received. Study identified the top 14 journals popular among LIS professionals. This is listed in Table 3. It was found that *Annals of Library & Information Studies* (145) is the most popular journal used in reading and publishing research articles, followed by *DESIDOC Journal of library and information technology* (138), *Library Hi-Tech News* (120), *Library Hi-Tech* (109). Respondents also revealed that these journals published innovative and application oriented research which motivates them to refer such journals. It

in the study and the major one is been found to be lack of funding to the librarians by Government agencies and parent institutions, time constructs and problems in data collection and its analysis using statistical tools. It is also ascertained that majority of librarians do research on theoretical aspects and follow survey method in their study. The areas of research approach are very limited. This is also the major reason for research approaches in the area being not innovative.

Therefore, librarians should come forward to adopt new approaches and select new areas of research. The most favorite areas of research in library sciences have been identified as E-resources and bibliometric studies. Library professionals should collaborate with each other forming research groups so that libraries can be benefited in the application of new tools and techniques. And the five laws of library science can be fulfilled in the real sense in the digital age.

**Table 3. Popular journals among LIS professionals**

| Rank | Journal(s) | Country of origin | Number of responses by users |
|---|---|---|---|
| 1. | *Annals of Library and Information Studies* | India | 145 |
| 2. | *DESIDOC Journal of Library and Information Technology* | India | 138 |
| 3. | *Library Hi-Tech News* | United Kingdom | 120 |
| 4. | *Library Hi-Tech* | United Kingdom | 109 |
| 5. | *SRELS Journal of Information Management* | India | 102 |
| 6. | *Electronic Library* | United Kingdom | 98 |
| 7. | *University News* | India | 98 |
| 8. | *Journal of Indian Library Association* | India | 97 |
| 9. | *D-Lib Magazine* | United States | 95 |
| 10. | *PEARL Asia Pacific Journal of Library & Information Science* | India | 75 |
| 11. | *Library Management* | United Kingdom | 72 |
| 12. | *Library Hearld* | India | 72 |
| 13. | *Scientometrics* | Netherlands | 71 |
| 14. | *Reference Services Review* | United Kingdom | 71 |

can be concluded from the dataset that Indian journals are most popular among the LIS fraternity in higher educational institutes. Out of the 14 most popular journals, 8 originate from India (Table 3).

## 7. DISCUSSIONS

The findings of the study demonstrate that LIS professionals are in conducting research. It was found during the study that 60% of the respondents possess MA, MSc or PhD degree in addition to the degree in Library and Information Science. However, the major motivation factor in conducting research has been to achieve API score to get promotion in the job, followed by personal growth and job security. Only a few have been involved in research for self-satisfaction. It was also ascertained that only 64% of the respondents felt that Masters in Library and Information Science has prepared them adequately to do research.

A large number of responses 55 (91.2%) show that library professionals prefer spending time in reading research literature. However, large number of respondents 95 (55.9%) do not read journal articles on a regular basis. Hence, it may be concluded that research article readings are not done regularly. There are several reasons identified

## 8. CONCLUSIONS

Librarians in academic libraries in India are competent to pursue research and development activities. However, resources and research support available to these professionals are limited. The rankings of Indian universities are far lower compared to universities in western countries and other developed nations. The major reasons for lower ranking identified by various studies have been inferior quality and less volume of research. Therefore, funding agencies and universities should come forward to encourage LIS professionals to pursue research and publishing. This will not only add value in delivering the best services to students, research scholars and faculty members, but also improve the level of research in academic institutions. Group based and collaborative research ought to be encouraged so that concrete research outcomes can be expected from these professionals. This will also help in developing the culture of research in academic institutions. In addition, research oriented training programmes ought to be conducted on a periodic basis so that new entrants in the profession can also learn the nuances of conducting pure, applied and action research. Course curriculum of the Master programme of library and information science must incorporate case

studies on conducting applied research to resolve day to day problems.

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