

Annals of Library and Information Studies Vol. 68, March 2021, pp. 39-46



Outsourcing of activities and services in academic libraries

Sarika Sawant

Assistant Professor, SHPT School of Library Science, SNDT Women's University, 1, NT Rd, Churchgate, Mumbai 400020, Email: sarikashpt@gmail.com

Received: 25 June 2020; revised: 26 January 2021; accepted: 04 March 2021

This article examines the outsourcing of library activities and services in university libraries in Maharashtra. A survey was employed to collect data using an online questionnaire. The study (covering 27 university libraries) revealed that outsourcing is common in academic libraries. The paper identifies the activities that have been outsourced and draws a strategy that can be followed while outsourcing library functions. It concludes that outsourcing non-core activities can save the time of library professionals which can be invested by them in providing other services like literacy skills, quality research support services etc. Concludes that there should be a proper balance of outsourcing activities and duties of the library professionals.

Keywords: Outsourcing; Academic libraries; Library services; Library professional activities; University Libraries; India

Introduction

The term outsourcing (outside resourcing), which originated during 1981¹ relates to contracting activities to external agencies or organizations. Another term "crowdsourcing" was coined around 2005, in which business activities are performed using the Internet to "outsource work to the crowd"².

Libraries have been outsourcing a few activities, especially for reducing costs. Outsourcing is the new name for the old practices of "contracting out" services that organizations chose not to provide internally with their own staff. Now, outsourcing is adopted in both the corporate and not-for-profit worlds. Over the years, libraries have contracted a few services and functions, like development of automated systems and acquisition of materials. These practices were initially called contracts and were not labelled as outsourcing, but now it is common practice to outsource certain functions³.

Library activities and functions are generally grouped under professional or core and non - professional or non-core activities. Professional or core activities include the traditional activities such as cataloguing, classification, technical processing, preservation, library automation, indexing and abstracting etc. Further, data entry, bar coding, providing members' identity cards, database management, network management, web site designing. hosting and maintenance, hardware maintenance, digitization, RFID tagging, cloud solutions, are equally important in libraries now-a-days in the ICT era. The current practices such as crowd sourcing, data recovery, data curation, AMC for ICT infrastructure management can also be included among core activities.

Non-professional activities like photocopying, binding, labelling and pasting, dusting cleaning, building cleaning, security, surveillance cameras management, maintenance of safety devices like smoke detectors, fire alarm system, etc. are treated as non-core activities.

There are many advantages of outsourcing activities by libraries, so that the time of professionals can be better utilized for qualitative output. The main reason to consider outsourcing is to reduce and or control costs. Outsourcing may improve library services⁴. A good contract and relationship with the vendors certainly helps libraries to monitor their performance, quality, and maintain control on the operations⁵. Outsourcing has some disadvantages if not managed properly. Many libraries have initiated outsourcing for delivery of services, and libraries have made successful use of outsourcing. Loss of control over the outsourced operations is the most critical problem faced by the libraries in outsourcing. Hence librarians have to have a good control and supervision over vendors. It is important to ensure that the outsourcing vendor understands and supports the purpose and values of the library⁶.

Steps to be followed while outsourcing any core or noncore library activity are:

- Fixing activities/tasks to be outsourced;
- Fixing the responsibility for management, either library or institutional management

- Preparing the schedule of cost-benefit analysis;
- Selection of the vendor, as per the procedure of the institute
- Negotiating the agreement
- Preparing the Memorandum of Understanding (MoU) stating the details of activities to be performed by the outsourcer, budget, time required, and finalising terms and conditions, covering all details of the contract
- Identification of risk if vendor leaves during the contract period
- Starting the process/ activity with detailed instructions and supervision in the initial period
- Evaluating and monitoring the outsourced activity
- Terminating or renewing the contract.

The present study is an attempt to examine the outsourcing of library activities and services in university libraries in Maharashtra.

Review of literature

According to Barthelemy and Geyer⁷, outsourcing helps in focusing on special activities in which the industry could achieve a unique competitive edge. Hamzah. Maelah, and Amiruddin⁸ defined outsourcing as the replacement of inputs or value added previously created in-house by an external provider within a long-term contractual relationship for the expected mutual benefits. Ugah⁹ stated that there are issues common to traditional library practices that may indicate the need to consider outsourcing, including high cost, low productivity, poor management, and lack of communication (Appleby, 2000; Gupta and Sharma, 2012)^{10,11}.

Tsiang¹² cautions that outsourcing is а controversial issue that could affect the future of the library profession. It is controversial due to redundancy implications for library staff. Outsourcing is a frequently misused and misunderstood term and some disagreement can be traced to different definitions¹¹. Some articles describe the pros and cons of outsourcing^{13,14}. Bénaud and Bordeianu (1999)¹⁵ compiled a bibliography to address the broad issues of outsourcing, especially in academic libraries¹⁶ and cited a number of studies published on outsourcing related aspects in recent years.

Brown¹⁷ identified providers and users of outsourced law library services in the UK and described the ways in which outsourcing was implemented in law libraries. Duchin¹⁸ suggested that there are a number of factors contributing to decisions

to outsource at the City University of New York. Romero¹⁹ suggested that generally in recent years the use of outsourcing has been based on economic factors and to lesser ability to assimilate technological changes and the need for the specialization of the organization.

Mwai, Kiplangat and Gichoya (2014)²⁰ studied the outsourcing of information technology services in four public university libraries in Kenva. They concluded that outsourcing needs to be guided by clear policies that need to be documented and communicated to all the stakeholders. Kakabadse and Kakabadse²¹ discussed the current and future trends of outsourcing in libraries. They examined the reasons outsourcing, the functions and activities for outsourced. the nature of the outsourcing arrangements, and the impact of outsourcing on employees.

Sawant²² in her study of preservation and conservation practices in academic libraries found that about 66% of the librarians felt that preservation activities can be outsourced so that they can be managed efficiently. Berard ²³ noted in his paper that refocusing on the core processes of a library is the internal driver towards outsourcing of functions. It is a boon for solo librarians to hire an outside vendor to handle technical services functions, as an example, to free up time to devote to visible client-centred services.

Elsayed²⁴ reported on a survey on the outsourcing of digitization projects in Saudi libraries. The results indicated that outsourcing is a trend in Saudi Arabia, and five out of nine major digitization projects mentioned by the respondents have been outsourced. There also seems to be a correlation between better quality output, the experience levels of staff and the decision to outsource. Mizunuma and Tsuji²⁵ discussed the scenario in Japan. According to them public libraries have long been managed by local governments. However, in 2003, organizations including private enterprises took over the management and introduced of libraries an called the outsourcing system "designated administrator system." The study showed that library usage, number of opening days, and the number of certified directors tended to increase after an outsourcing system was introduced.

Vinh The Lam²⁶ investigated the quality control (QC) issues in programs of outsourcing cataloguing implemented in U.S. and Canadian academic libraries. A large majority of these libraries were satisfied with

the provided by outsourcing the services vendors. Veer Bala²⁷ in her survey confirmed that outsourcing has become a common practice in the majority of the science and technology libraries in Northern India, however, they do only selective outsourcing. According to her, these libraries have been outsourcing for many years. In contrast to the international scenario, Indian libraries abstain from outsourcing Professional-Manual activities and services and rather prefer to use outsourcing for the Professional-Automated and Non-Professional activities and services.

The available literature encouraged the researcher to investigate the facts involved in the process/ workflow in outsourcing activities in university libraries in Maharashtra.

Objectives of the study

- To find out whether libraries outsource activities or not and to understand the extent and types of outsourcing in libraries;
- To study the reasons of adopting outsourcing in libraries and to identify the challenges involved in implementing outsourcing in libraries; and

• To examine the planning, working and impact of outsourcing on the libraries.

Methodology

The population for the study is university libraries in Maharashtra State of India, including state government universities as well as deemed universities of Maharashtra. It also considered agricultural universities, health science universities etc. Total of 48 universities, i.e., 22 state government universities, 1 central university, 22 deemed to be Universities and 3 institutions of national importance were considered for this study. Private universities of Maharashtra were excluded from the study because of low motivation of librarians in responding to the surveys. No sampling was done, and questionnaires were sent to all 48 university libraries. Out of 48 university libraries, 27 (56.28%) responded to the questionnaire.

Analysis

Table 1 lists the 27 university libraries that responded to the questionnaire. Among the respondents, 53.85% are state government universities and 38.46% are deemed universities. It was observed

Table 1 —	Uuniversity	Libraries	responded	to survey

Sl. No.		
51. INO.	Name of the University	Year
1	Dr. Babasaheb Ambedkar Marathwada University	1958
2	Dr. Babasaheb Ambedkar Technological University	1989
3	Dr. Punjabrao Deshmukh Krishi Vidyapeeth	1969
4	Kavi Kulguru Kalidas Sanskrit Vishwavidyalaya	1997
5	Maharashtra Animal & Fishery Sciences University	2001
6	Mumbai University	1857
7	North Maharashtra University	1989
8	Savitribai Phule Pune University	1949
9	Sant Gadge Baba Amravati University	1983
10	Shivaji University	1962
11	Smt. Nathibai Damodar Thackersey Women's University	1916
12	Solapur University	2004
13	Swami Ramanand Teerth Marathwada University	1994
14	Yashwant Rao Chavan Maharashtra Open University	1989
15	Bharati Vidyapeeth	1996
16	Deccan College Postgraduate & Research Institute	1821
17	Gokhale Institute of Politics & Economics	1993
18	Indira Gandhi Institute of Development Research	1987
19	International Institute for Population Sciences	1956
20	MGM Institute of Health Sciences	2006
21	Narsee Monjee Institute of Management Studies	1981
22	Padmashree Dr. D.Y. Patil Vidyapeeth	2003
23	SYMBIOSIS - International University	2001
24	Tata Institute of Fundamental Research	1945
25	Tata Institute of Social Sciences	1936
26	Institute of Chemical Technology	1932
27	Indian Institute of Technology	1958

that Deccan College Postgraduate and Research Institute is the oldest university (established in 1821) and Solapur University is the most recently established university (in 2004).

It was observed that 70.37% of the universities were funded by State/Central government, whereas 18.52% were self-funded. Under the category of 'Others' 11.11% respondents mentioned the source of funding, viz., internal revenue and MHRD funding, and they receive funds from state and RBI, or may be self-funded.

Outsourcing of professional and non-professional activities

The most frequently outsourced activity is digitization - 50% of the respondents have indicated that their libraries have fully outsourced the digitization (retro conversion) activity. Among partially outsourced activities, software maintenance was most frequent (40%), followed by hardware maintenance (41.67%). The proposed outsourcing activities were RFID tagging (22.73%) and cloud solution (20%). It is also noticed that core library work is not outsourced by any of the respondents (Table 2).

For non-professional activities, the largest number of respondents (85.19%) mentioned that binding is fully outsourced, followed by fumigation (47.62%). The partially outsourced activities are library sweeping and cleaning (37.50%), followed by dusting (33.33%). Labelling and pasting was mostly not outsourced by the respondents (Table 3).

Frequency of outsourcing of professional and non-professional activities

The data collected using Likert scale (Poor=0, Fair results=1, Average results=2, Good results=3, Excellent results=4) was analyzed. It was found that hardware and software maintenance outsourcing is most frequent while outsourcing classification is most infrequent (Table 4).

Similarly, in case of non-professional activities binding ranked first, pest control second, building sweeping and cleaning third, dusting fourth, security fifth, photocopying sixth, fumigation seventh and Labelling and pasting had the lowest frequency i.e eighth position.

One respondent indicated that some of the activities such as security, building sweeping and pest control are not meant to be performed by libraries and can be outsourced.

Advantages and disadvantages of outsourcing

92.31% respondents felt that outsourcing is advantageous to library and information by outsourcing

Table 2 — Outsourchig of professional activities				
	No outsourcing	Proposed outsourcing	Partially outsourced	Fully outsourced
Cataloguing including data entry	19 (79.17%)	0 (0%)	2 (8.33%)	3 (12.5%)
Cataloguing card production	21 (91.3%)	0 (0%)	0 (0%)	2 (8.7%)
Classification	21 (91.3%)	0 (0%)	1 (4.35%)	1 (4.35%)
Indexing & Abstracting	22 (95.65%)	0 (0%)	0 (0%)	1 (4.35%)
Members Identity Cards	16 (69.57%)	0 (0%)	2 (8.7%)	5 (21.74%)
Retrospective conversion of records to MARC format	16 (69.57%)	1 (4.35%)	1 (4.35%)	5 (21.74%)
Preservation/conservation	15 (62.5%)	1 (4.17%)	3 (12.5%)	5 (20.83%)
Technical processing	22 (95.65%)	0 (0%)	0 (0%)	1 (4.35%)
Translation	20 (90.91%)	0 (0%)	0 (0%)	2 (9.09%)
Library Automation	15 (65.22%)	0 (0%)	3 (13.04%)	5 (21.74%)
Setting up Institutional Repository	12 (50%)	4 (16.67%)	5 (20.83%)	3 (12.5%)
Bar Coding	17 (73.91%)	0 (0%)	4 (17.39%)	2 (8.7%)
Database Management	15 (62.5%)	1 (4.17%)	5 (20.83%)	3 (12.5%)
Network Management	13 (54.17%)	0 (0%)	6 (25%)	5 (20.83%)
Website designing and maintenance	13 (52%)	0 (0%)	6 (24%)	6 (24%)
Hardware maintenance	6 (24%)	0 (0%)	10 (40%)	9 (36%)
Software maintenance	5 (20.83%)	0 (0%)	10 (41.67%)	9 (37.5%)
Digitization	7 (29.17%)	1 (4.17%)	4 (16.67%)	12 (50%)
RFID tagging	14 (63.64%)	5 (22.73%)	0 (0%)	3 (13.64%)
Cloud solution	11 (55%)	4 (20%)	0 (0%)	5 (25%)
Library discovery service	13 (61.9%)	1 (4.76%)	1 (4.76%)	6 (28.57%)
Other (please specify)			(0%)	0 (0%)

Table 2 — Outsourcing of professional activities

Table 3 — Outsourcing of Non-professional activities				
	No	Proposed	Partially	Fully
Photocopying	17(65.38%)	0	2(7.69%)	7(26.92%)
Binding	2(7.41%)	0	2(7.41%)	23(85.19%)
Labelling and pasting	21(95.45%)	0	0 0.00%	1(4.55%)
Dusting	8(33.33%)	1(4.17%)	8(33.33%)	7(29.17%)
Library sweeping, cleaning	5(20.83%)	1(4.17%)	9(37.50%)	9(37.50%)
Security	9(36.00%)	0	5(20.00%)	11(44.00%)
Fumigation	8(38.10%)	0	3(14.29%)	10(47.62%)
Pest control	3(12.00%)	0	2(8.00%)	20(80.00%)
Other (please specify)				

Table 4 — Frequency of outsourcing of professional activities

	D 1
Frequency of outsourcing of professional activities	Rank
Hardware maintenance	1
Software maintenance	2
Digitization	3
Library automation	4
Website designing and maintenance	5
Network management	6
Preservation/conservation	7
Database management	8
Members identity cards	9
Library discovery service	9
Cloud solution	10
Cataloguing including data entry	11
Cataloguing card production	12
RFID tagging	13
Bar coding	14
Technical processing	15
Translation	15
Classification	16
Indexing & Abstracting	0

of non-professional activities they can concentrate on their core library activities effectively and provide better services. Some respondents felt that it saves time of librarians (Table 5).

Outsourcing is not free from disadvantages, and the major disadvantages reported were that the library staff needs to monitor ongoing costs and continuously assess the value of outsourcing as costs change (84%); and staff reallocations require managers to identify ways of reassigning and retraining staff as work disappears and new work is identified (52%). Further, 40% of the respondents felt that there is a possibility of miscommunication between the library and the vendor, resulting in unsatisfactory outcome.

Long-term impact of outsourcing of activities on the libraries

The outsourcing of non-core activities can be managed only if additional budget is made available Table 5 — Advantages/benefits of outsourcing

Sl. No.	Services	Response
1	Library and Information Professionals can concentrate on core activities.	24(92.31%)
2	It eliminates backlog	14(53.85%)
3	Operating and training costs can be reduced.	12(46.15%)
4	Efficiency can be improved.	16(61.54%)
5	Value-added services can be provided.	16(61.54%)
6	Productivity can be increased in less time.	17(65.38%)
7	Best quality services can be provided.	12(46.15%)
8	Manpower can be saved.	14(53.85%)
9	User satisfaction can be ensured.	15(57.69%)
10	Skilled manpower can be bought at lower rates.	11(42.31%)
11	To save time	20(76.92%)
12	More efficient than in-house	8(30.77%)
13	To introduce new services	14(53.85%)
14	Other (please specify)	2(8%)

to the library in addition to the regular allocation, or the task is to be managed by the institutional budget. The greatest fear of librarians is about non-availability of budget (76.92%). Further, 69.23% of the respondents felt that by outsourcing, the library must rely on a third party even for routine activities and tasks. There is the concern that staff will get reduced (as stated by 57.69% of respondents). One respondent mentioned under 'Others' that it will help to develop corporate culture in the library.

Management of outsourcing

Budget for outsourcing activities

In an open-ended question, respondents were asked to give suggestions on managing the budget for outsourcing activities. The suggestions received were: have a separate university budget / fund for outsourcing activities, allocate annual budget for outsourcing and review it at regular intervals for updating it based on services used, budget for outsourcing may be managed from unplanned funds, institute's budget provision and management of activities through institute, special provisions for outsourcing are to be planned in advance.

Planning and implementing outsourcing programs

Of the respondents, 74.07% emphasised on 'negotiating costs and reviewing contracts' followed by 'understanding technical functionalities of activities supposed to be outsourced. For example, 70.37% respondents cited retrospective conversion' (Table 6). Under 'Others' two respondents mentioned that there is a need of balance between regular staff and outsourcing staff, and an MoU is also necessary for clarity in the outsourcing program.

Criteria for selecting an outsourcing vendor

The majority, i.e., 96.15 % respondents indicated that while selecting an outsourcing agency / vendor there is a need to assess quality assurance and cost effectiveness, which are the most important criteria for selecting an outsourcing vendor. This was followed by two criteria that the quotation should be reasonable and the vendor should have exposure to advanced skills and technology, which had the same frequency, i.e. 73.08%. Further, the respondents felt that the reputation of the company and contract terms are also equally important, as indicated by 65.38% and 61.54% of the respondents, respectively. Half of the respondents mentioned that privacy and confidentiality is also an important criterion that needs to be considered. One respondent mentioned under 'Others' that need of outsourcing is more important than selection criteria.

Outsourcing of professional activities and non-professional activities

The responses received using the Likert scale were analyzed by assigning points, (Poor=0, Fair results=1, Average results=2, Good results=3, Excellent results=4) calculating the total score for each activity, and ranking the activities (Table 7). While selecting the tasks and functions for outsourcing., priority has been given to hardware maintenance and digitization. Classification is rarely outsourced.

About 71.43% respondents mentioned that they would like to continue outsourcing of selected professional activities, while 42.31% of the respondents agreed for outsourcing of selected non-professional activities.

Suggestions regarding outsourcing

Only 39% of the responded to the open-ended question asking for specific suggestions. The

Table 6 — Planning and implementing outsourcing program			
Sl. No.	Services	Response	
1	Understanding technical functionalities of activity that is supposed to be outsourced for example in case of retrospective conversion	19(70.37%)	
2	Vendor selection	16(59.26%)	
3	Designing outsourcing service	8(29.63%)	
4	Negotiating costs and reviewing contracts	20(74.07%)	
5	Providing detailed written instructions about the work and outputs required	13(48.15%)	
6	Monitoring progress of work on a regular basis	18(66.67%)	
	Monitoring quality of work on a regular basis	21(77.78%)	
	Completion of work in time	17(62.96%)	
7	Other (please specify)	2(7.41%)	

Table 7 — Outsourcing of professional activities

Sr No.	Activities	Rank
1	Hardware maintenance	1
2	Digitization	1
3	Software maintenance	2
4	Library automation	3
5	Website designing and maintenance	4
6	Network management	5
7	Preservation/conservation	6
8	Database management	7
9	Cataloguing including data entry	7
10	Bar coding	8
11	Cloud solution	9
12	Library discovery service	10
13	Members identity cards	10
14	Cataloguing card production	10
15	Translation	11
16	RFID tagging	12
17	Indexing & Abstracting	13
18	Technical processing	14
19	Classification	15

respondents generally agreed that outsourcing is a good option to get non-core library functions performed by outside agencies. A few suggested that outsourcing may be limited to binding and photocopying activities, and repairing work can also be outsourced. Annual maintenance contract for library software and hardware has necessarily to be outsourced to ensure proper functioning of the ICT infrastructure etc. Librarians have suggested that professional work must be done by library professionals only and there is no need to outsource it as these are skilled and professional activities. A few professionals opined that if less important professional activities are outsourced, library staff can render more value added services to the users, like quality research support services etc. Professionals

can sometimes outsource pending workload, hiring professionally qualified staff for a certain period on temporary appointment to clear the task under supervision. Some felt that outsourcing is a good option, but its implementation needs to be done requires properly. which good planning and management. few mentioned that while А implementing outsourcing in professional work, budget provision becomes challenging. Some professionals also indicated that if many activities are outsourced then upcoming LIS professionals may not get jobs.

Discussion

From the study it is deduced that the core library professional work should not be outsourced; however to manage library activities with limited staff, it is possible to adopt outsourcing for non-professional activities. Non-professional activities, that can be fully outsourced include binding activity, and has been outsourced for long by librarians. Similarly outsourcing of cleaning and dusting activity can be outsourced. Less availability of professional staff and burden on existing staff is causing a few librarians to outsource even professional activities. Libraries are transforming due to use of new technologies. there is under-staffing, while users' However. demands are increasing, publication trends are migrating to e-resources, digital library development is in progress, creation of IR, and databases are to be managed. Therefore, there is a need to think of practices in the changing scenario in which professionals have to outsource traditional activities as far as possible and initiate professionals to manage new activities which support education, teaching and research.

Now a days libraries are acquiring more eresources and databases, managing cloud computing, initiating discovery services, etc., which all need different skills including IT skills. Librarians need to depend on external agencies for collection management and IT technical areas. This is also reflected in the present study where it was observed that the frequency of outsourcing is greater in case of hardware and software maintenance, digitisation, resource sharing etc. The librarians can utilise their time in developing the library's website, creating e-content for the website, imparting digital literacy skills to users, acquiring new skills etc.

Overall, librarians should start replanning, restructuring and reengineering the work flow process and existing services including outsourcing, which will reduce the human effort, time and money and enable librarians to introduce new services (Veer Bala, 2013²⁶. The videos about online database searching and its advanced features, use of discovery tools, literature search for paid and free resources, awareness about copyright issues and creative commons licences, open educational resources and their development, etc. can be developed and uploaded on YouTube. These uploaded videos can be integrated in the library's website making the website more enriching for their users. The librarians can become the supportive pillars by supplying relevant documents to the faculty members for their MOOCs. Librarians can also provide services to other organisations where libraries are not available, such as consultation, literature search services, translation services, alert services, readers advisory services, virtual reference services, workshops on reference managers/ copyright issues etc. These services can be counted as resource generation activities which may prove beneficial to the library in the long run.

Conclusion

The study revealed that outsourcing is a good option to carry out non-core library functions but in case of library professional work it can be useful to some extent. Outsourcing non-core activities can save the time of library professionals which can be invested by them in arranging other services for the users like literacy skills, quality research support services etc. There should be a proper balance of outsourcing activities and duties of the library professionals. With scarcity of manpower, limited budgets and to satisfy the users' varied needs, librarians have to be more service oriented and provide quality services using ICT. To face the future and develop sustainability in the profession, there is now a need to outsource non-professional library tasks. Those librarians who have experience in outsourcing non-core and IT specific core professional work can explore/experiment further to how to additionally outsource core activities without compromising the quality.

Acknowledgement: Author is thankful to SNDT Women's University for the award of SUUTI grant to conduct the said research project.

References

- Outsourcing, Wikipedia blog post, Available at https://en.wikipedia.org/wiki/Outsourcing (Accessed on 28 Sept 2020).
- 2 Howe J, The rise of crowd sourcing, *Wired* (2006), Available at https://www.wired.com/2006/06/crowds/ (Accessed on 28 Sept 2020).
- 3 Martin R; Brown, Steven L.; Claes, Jane; Gray, Cynthia A.; ardin, Greg; Judkins, Timothy C.; Kingrey, Kelly Patricia; Latham, Clara; Lindsey, Thomas K.; Rogers, JoAnn; Schenewerk, Roberta; Strauss, Kathleen G.; Sweeney, Suzanne; Watling, Marleen; Worcester, Lea, The impact of outsourcing and privatization on library services and management: a study for the American Library Association, School of Library and Information Studies, 2000, Available at https://alair.ala.org/handle/11213/6995 (Accessed on 28 Sept 2020).
- 4 Ebbinghouse C, Library Outsourcing: A New Look, *Searcher*, 10(4)(2002) 63-70.
- 5 Baker B, Resource sharing: outsourcing and technical services, *Technical Services Quarterly*, 16(9) (1998) 35-45.
- 6 Cubberley M and Partners, Discussion paper on outsourcing in Canadian Heritage Institutions (libraries and/or museums), ASM Advanced Strategic Management Consultants, (1999).
- 7 Barthelemy J and Geyer D, IT outsourcing: evidence from France and Germany, *European Management Journal*, 19(2) (2001) 195–202.
- 8 Hamzah N, Aman A, Maelah R, Auzir S and Amiruddin R, Outsourcing decision processes: A case study of a Malaysian firm, *African Journal of Business Management*, 4(15) (2010) 3307-3314.
- 9 Ugah A D, Outsourcing for Effective Resource Management in Nigerian University Libraries, *Library Philosophy and Practice*, 2010, Available at https://digitalcommon s.unl.edu/cgi/viewcontent.cgi?article=1376&context=libphilp rac (Accessed on 28 Sept 2020).
- 10 Appleby B, Public libraries: Outsourcing technical services, (2002), Available at http://www.unt.edu/ slis/students/project /5320/appleby.htm. F (Accessed on 28 Sept 2020).
- 11 Gupta D K and Sharma V, Evidences of outsourcing in science and technology libraries of Delhi, *Library Management*, 33(4/5) (2012) 241-252.
- 12 Tsiang A, Cataloging outsourcing: practice and thinking, Journal of East Asian Libraries, (139) (2006) 53-56.
- 13 Basak M and Roy S B, Impact of outsourcing on library activities: A bird's eye view, Indian Journal of Library and Information Science, 7(3) (2013) 328-333, Available at https://rfppl.co.in/view_abstract.php?jid=8&art_id=1298 (Accessed on 28 Sept 2020).
- 14 Whitlatch J B, Reference futures: Outsourcing, the Web, or knowledge counselling, *Reference Services Review*, 31(1) (2003) 26-30.

- 15 Benaud CL and Bordeianu S, Outsourcing in academic libraries:
- 16 a selective Bibliography, *Reference Services Review*, 27(1) (1999) 78-89.
- 17 Alsudairi M and Dwivedi Y K, A multi-disciplinary profile of IS/IT outsourcing research, *Journal of Enterprise Information Management*, 23(2) (2010) 215-258.
- 18 Brown F, Outsourcing Law Firm Libraries to Commercial Law Library and Legal Research Services. The UK Experience, Australian Academic & Research Libraries, 45(3) (2014) 176-192.
- 19 Duchin D, Outsourcing: Newman Library, Baruch College/CUNY, *The Bottom Line: Managing Library Finances*,11(3) (1998) 111-115.
- 20 Romero L, Outsourcing as a change management tool in libraries and documentation centers, *The Bottom Line: Managing Library Finances*, 24(1) (2011) 73-79.
- 21 Mwai M W, Kiplangat J and Gichoya D, Application of resource dependency theory and transaction cost theory in analysing outsourcing information communication services decisions: A case of selected public university libraries in Kenya, *The Electronic Library*, 32(6) (2014)786-805.
- 22 Kakabadse A and Kakabadse N, Outsourcing: Current and Future Trends, *Thunderbird International Business Review*, 47(2) (2005)183–204.
- 23 Sawant S, A study on preservation and conservation practices in academic libraries in Mumbai, *Annals of library* and information studies, 61(2) (2014) 153-169.
- 24 Berard G and Lynn, Special thematic issue on Competencies: The Management of SciTech Libraries: Services, Staff, Facilities, and Outsourcing, *Science & Technology Libraries*, 28(1/2) (2008) 1–32.
- 25 Elsayed A M, Outsourcing Digitization Projects in Saudi Arabia: An Overview of Current Practices, *Library Collections, Acquisitions, & Technical Services,* 38(1/2) (2014), Available at https://doi.org/10.1080/14649 055.2014.992000 (Accessed on 28 Sept 2020).
- 26 Mizunuma Y and Keita T, Survey on Public Libraries Managed by Outsourcing, with a Focus on Library Usage, Opening Days, and Directors' Qualifications, *In Proceedings* of the paper presented at the Conference on 7th International Congress on Advanced Applied Informatics, Institute of Electrical and Electronics Engineers Inc., Japan, 8-13 July 2018, p. 55-60, Available at https://doi.org/10.1109/IIAI-AAI.2018.00021(Accessed on 28 Sept 2020).
- 27 Lam V T, Quality control issues in outsourcing cataloging in United States and Canadian academic libraries, *Cataloging* and Classification Quarterly, 40(1) (2005) p. 101–122. Available at https://doi.org/10.1300/J104v40n01_07 (Accessed on 28 Sept 2020).
- 28 Veer Bala, Impact of outsourcing of library activities and services in science and technology libraries in northern India: a critical study, PhD dissertation, Kurukshetra university, 2013, Available at https://shodh ganga.inflibnet.ac.in/ bitstream/10603/9138/1/01_title.pdf (Accessed on 28 Sept 2020).