CHAPTER 2

REVIEW OF LITERATURE

2.1 Introduction

Review of literature gives an account of the current knowledge on the particular subject of research including findings as well as theoretical and methodological contributions to the topic. In this chapter a thorough review of the topics related to different aspects of collection development has been done to get a clear perspective of the study. The reviews are arranged under the following subheadings:

- Collection Development
- Collection Development Policy
- Evaluation in Collection Development
- Collection Development of Electronic Resources

2.2 Collection development

(Andrade & Vergueiro, 1996) discussed a Brazilian library's experience as a case study of collection development in academic libraries. The authors referred to several theoretical models for checking effectiveness of collection development like Edelman's model, Baughman's structural approach, Ferguson's structural-functional systems model, Evans' systems process, Atkinson's model etc. and finally selected Evans model. The study was intended to demonstrate the adequacy of the model and to make an exhaustive analysis of collection development activities in a specific academic library. The authors verified the collection development practices in the selected library to decide how the activities described by the model were being done in the library. They concluded the model was adequate for developing countries and affirmed that impressive progress has been made in collection development in the library.

(Kenselaar, 1996) opined about the necessity of strong support from central library administration for collection development and also the need for communication and collegiality among staff. He pointed out elements like dedicated staff, meticulous collection development policy, detailed budget allocation system, collection assessment etc. for effective collection development. He highlighted
practices followed in selected libraries which are effective in collection development but also warned that a management style that works in one institution may not always work everywhere.

(Rowley & Black, 1996) described the evolution of collection development from sixties to nineties. In 1960s, libraries established large local collections and access to remote collections was not the concern of librarians or users. In the early 1970s, subject specialist and bibliographer positions were created to judge acquisition decisions. In academic libraries acquisition was selection of materials while collection development was utilizing critical judgements to build quality collections. In the 1980s collection development units were created to carry out functions like planning & policy making, collection analysis, selection, fiscal management, user liaison, resource sharing etc. In the 1990s the concept became broader with collection development function being integrated into other library operations. The authors suggested new directions in service, technological reliance and integration of electronic information for shaping the future of collection development.

(Aptagiri, 1997) discussed the constraints and criteria in collection development and the different roles internet has to play in collection development in libraries. According to her the most obvious constraints in building collections included cost of publications, space limitations and manpower limitations. Other factors like information explosion, interdisciplinary nature of studies, increasing rate of obsolescence, data availability in multiple forms and inadequate ways to retrieve nascent information also added to the constraints. She then gave a list of the various kinds of documents viz. primary, secondary, tertiary and other sources available on the net and concluded that internet has tremendous prospects for collection development.

(Branin & Groen, 1999) in their article described the history of collection management in North American research libraries and pointed out the challenges the librarians faced in the transition to a new environment. They described about economic constraints, digital information systems and the conflict between old and new formats as a result of the emerging digital resources. They observed that the teaching, learning and research work of the faculty and students changed dramatically and the librarians have to move from a local print collection perspective to a broader vision of knowledge management. They concluded that librarians must deliver
resources and services online, aggregate digital resources, help create new publications and preserve the knowledge.

(Gessesse, 2000) examined some of the concepts and problems an academic library must consider to align its collection development process with the changing environment of digital librarianship. The author stated the need to strike a balance between collecting and providing access to print and electronic resources. He remarked that keeping pace with changing technology is a necessity and the professional who fails to do so is unable to serve the basic information needs of the patron. He concluded that both print and digital information must be selected, preserved and delivered from physical collections and electronic repositories.

(Kuo, 2000) conducted a survey about faculty book selection in a university library. The survey revealed that faculty with 1-5 years’ experience were the most active in book selection and they ordered books mainly for undergraduate students and teaching. They depended mostly on publishers’ catalogues and journal book reviews for selection and they need to use wider range of selection tools to develop a comprehensive collection. The study provided measurable data and constructive feedback to enhance faculty book selection process.

(Roberts, 2001) identified and examined the major trends and developments in financial management of collections in academic and research libraries. He reviewed various financial models for collection development and remarked that a technology based service model will emerge rather than a traditional collection-based service model. He proposed a 5 Ps model of marketing viz. product, pricing, promotion, platform and positioning in which less is spent on physical collections and more on access charges. He summarised that academic and research libraries in future will be spending on users rather than collections, collection management will be more about intellectual property, licensing agreements, consortia activities, content development and working towards a collaborative model.

(Ameen, 2005) gave a historical review of the developments in the philosophy of building library collections from antiquity to the modern age. While in ancient and classical period collections were considered too sacred to be lost and their preservation became an end in itself, in modern times libraries began to preserve to serve humanity. The size philosophy changed in the last quarter of the twentieth
century with global access to online databases. The philosophy of collection management in the electronic era has to deal with challenges like information superhighway, digital resources, copyright, preservation issues etc. The author ended up with the comment that the philosophy behind collection development has expanded over the ages from mere collection and preservation to dissemination because users are also precious assets of a library as collections.

(Wittenbach, 2005) provided a model for restructuring collection development in her case study of University of California Riverside University Libraries. As a result of the new system, subject specialists were empowered to select for their disciplines and manage budget. Faculty became more aware of the budget amount for purchase in their subject areas and had dedicated individuals who addressed their concerns, purchasing request etc. The author disclosed that the new critical model had created more accountability for materials budget.

(Atkinson, 2006) presented an overview of the challenges facing collection development the primary being material preservation. This included technical issues and the failure of the libraries to have direct access to materials to preserve as they are maintained in vendor databases. The challenges included retrospective conversion, transition to digital publishing, publisher relations, archiving of print and digital materials etc. He remarked that these challenges had to be met collectively and concluded by suggesting cooperative collection development as a solution.

(Ameen & Haider, 2007) examined the challenges of collection management in university libraries of Pakistan. The major challenges according to them were library automation, availability of compatible software/hardware, ICT literacy, availability of human resources etc. They detected cooperative collection development as the most neglected area in university librarianship of Pakistan and pointed out the difficulty in accessing grey literature due to weak bibliographic control, limited number of publications etc. The authors summarise with the findings that the fundamental challenges included handling the hybrid character of collections, library services, training of collection management staff, evaluation, resource sharing and preservation.
(Lenz & Wohl, 2008) conducted two surveys to find out the collection development practices and organizational structures in nineteen academic law libraries. They found that organizational structures have been influenced by factors like size of the collection, budget, experience of the staff, history of the institution etc. They stated that while collection development required centralized control one person cannot be solely responsible. Selection, evaluation and developing collection policy required knowledge of both library’s collection and patron’s needs. They recommended Collection Development Committee should ensure multiple viewpoints are heard, information shared and librarians are aware of library’s policies.

(Munro & Philps, 2008) examined the role of selection in academic libraries. They reviewed the findings of a 1994 study of collection management in Australian University libraries examining current practices and the impact of IT. Two models for selection of monographic materials were identified from the study and these were presented and compared with a generalised model of practice in academic libraries in the United States. The different aspects of collection development discussed included policies, selection and the responsibilities of academics and library staff.

(Smith, 2008) in her case study of Swirbul Library, Adelphi University, New York considered various factors before finalising on a fund allocation process that would help collection development goals. She stated that the budget should be practical reflecting university’s curricula and objectives, should be flexible for meeting contingencies related to purchase, changing curriculum needs etc. She described the steps and process in choosing A Percentage Based Allocation Formula and the results of its implementation. She suggested that when choosing a methodology for fund allocation the entire collection activities of the library must be brought together.

(Jensen, 2009) used online survey tools in his collection development project to get feedback and input from faculty to evaluate current collections and guide future decision making. Analysing the results of these surveys helped librarians to have a better understanding of the research needs of the faculty which in turn guided in making collection decisions. Engaging faculty also helped in knowing latest scholarly communication or alternative publishing issues and how to support undergraduate students through book purchases and information literacy initiatives.
(Joint, 2009) explored about choosing between print and digital collections in times of financial constraint. According to him, librarians should be free from concerns about disposing stock to release library space to be used for better digital communication facilities. He concluded that the money should be spent on digital content and on repurposing libraries as open spaces with digital technologies that facilitate new learning activities.

(Kinner & Crosetto, 2009) in their study addressed how academic library engaged in collection development at the local and consortia levels. The authors described the development of consortia and the benefits and challenges of academic consortia. They recommended certain suggestions to assist individual library member in a consortia to retain local autonomy such as the libraries should have clear information about available funds, should develop collection policies that prioritise local information needs, should have representation in library consortia standing committees etc. They concluded that the benefits of being a member of academic consortium are immeasurable and to maintain the vibrancy of the consortium time, money and effort is necessary.

(Khan, 2010) made a comparative analysis of organizational patterns of four central university libraries viz. Aligarh Muslim University, Banaras Hindu University, Allahabad University and Baba Bhim Rao Ambedkar University. A well-structured questionnaire was given to the librarians and acquisition librarians. He found that the new centralized universities lag behind the old centralized universities in collection development organizational patterns. He suggested that libraries should prepare a Collection development Policy Manual with guidelines for e-resources and IT enabled services.

(Hazen, 2010) is of the view that the academic libraries are facing intense financial pressures and suggested several guiding principles for collection and content. According to him, the information resources in all forms and formats can be put into four categories viz. core resources, the record of scholarship, primary resources and data. He also stressed the importance of ownership and access, cooperative efforts, scholarly communication, developing tools and services for accessing and using digital resources, local accountability etc. for academic libraries.
(Anderson, 2011) in his paper revealed that there was a need to rethink not just the ways libraries builds collections but the very nature of library collections. He pointed out that the library’s monopoly was broken by internet which resulted in drop in unit price of documents, increase in ease of finding documents, free access to ready reference information, growing open access movement etc. which in turn resulted in existential crisis for traditional library. Other deeper problems in the library identified by him include lack of specific individual titles needed by library patrons in spite of good collection, user-hostile and incomplete online library catalogue, lack of scalable traditional reference service to the population etc. He made several predictions for research libraries in the next decade like patron driven acquisition becoming the trend, creating print acquisitions according to need, difficulty in distinguishing library services from other educational services etc.

(Booth & Brien, 2011) in their study explored the logic behind combining demand-driven and cooperative collection development projects. The authors analysed three such projects undertaken at University at Buffalo and described the opportunities and challenges posed by such a combination. They discussed how the combination will lower costs, reduce duplication, increase the range of accessible materials and satisfy patron demand. They observed that all the programs met the expected goals of expanded collections with the sense of aggregate collection as one collection.

(Detmering & Sproles, 2012) in their case study of University of Louisville’s Ekstrom library described weeding and converting a large print reference collection into an electronic oriented collection. They found that the library had a large, neglected, unusable, print-based reference collection which created serious space issues. To address this they developed a new cooperative approach and crafted a new policy. They listed currency, comprehensiveness of the topic, relevancy to support university curriculum as the primary selection criteria and focused on timeliness, satisfying user needs, and preference for electronic resources. The authors acknowledged that all the changes have created a smaller, user-friendly collection that embraces the digital environment.
(Gunasekera, 2013) in his study analysed the citations of Masters theses on sociology at university of Peradeniya to determine the most frequently cited journals and the format and age of materials used. Citations were extracted from title pages and reference lists of the thesis submitted from 1995 to 2012. The study found that 56% of the citations were monographs, 22% journals, 8.5% reports, 45 web resources and 2% theses and dissertations. The study also revealed that average age of materials used was 10-20 years and 9 journals were the most frequently cited. The author expressed that the study would be useful in developing collection development policies and budget planning and data regarding age could be used to develop storage and retention policies of the library.

(Montano, 2014) argued that the basic element of a library is its collection and based on Thomas S Kuhn’s science revolution theories applied the same to collection management. She is of the view that the new model of collection management should redefine the concept of collection and management, library’s principles regarding the needs of user’s, collection and institutes. She also added that cooperation is the backbone of library activities providing sustainability for its progress.

(Sasikala, Nagaratnamani & Dhanraju, 2014) surveyed to investigate the trends in collection development in college and university libraries in Andhra Pradesh. They briefly described the impact of electronic publishing on collection development and examined the status and management of e-resources in academic libraries. They also explored the perceptions of librarians on the role of consortia on e-resources collection development, the different policy issues related to it and the usefulness of library standards and guidelines in collection development.

(Khan & Bhatti, 2015) in their case study of University of Peshawar examined academic law libraries’ use, collections and services among the faculty members. A survey research based on a well-structured questionnaire was conducted among the teaching faculty of the Law College and 18 law colleges affiliated to the university. The study revealed that majority of the users visited libraries for issue and return of books and reading newspapers. Among the law faculty members, low library usage was observed and majority of the faculty used text books and dictionaries for searching legal terminologies as there were inadequate legal information sources in all libraries. However usage, collections and services were rated as satisfactory by the respondents. The authors also provided some suggestions like arranging information
literacy programs to inform users about the resources, provision of computers and ICTs, provision of access to Higher Education Commission digital library and important legal databases, user–centred evaluation, formulation of collection development policy etc.

(Nwosu & Udo-Anyanwu, 2015) studied the performance of collection development functions in five academic libraries in Imo State, Nigeria. The study employed descriptive survey and data were collected from 109 professional and Para-professional staff of five academic libraries using a self-developed questionnaire. Findings revealed the lack of a comprehensive collection development policy in all the studied libraries, absence of a coordinating department to discharge the various collection development functions, low participation of teachers in selection of materials, purchase as the main method of acquiring materials, lack of regular weeding and increased inter-library cooperation. Inadequate book vote was found to be the major problem of collection development in the studied libraries. The authors also suggested recommendations for effective collection development like development of a comprehensive collection development policy, creation of a collection development department to coordinate collection development activities, increased partnership with faculty, re-institution of book vote, periodic weeding and increasing the staff strength.

(Khan & Bhatti, 2016) made an extensive review of the available literature to conduct a study on the collection development in university libraries of Pakistan. They pointed out several factors like low budgets, absence of policies, lack of assessments, resource sharing programs etc which influence collection development and management in university libraries of Pakistan. Neither faculty nor library professionals had a balanced role in selection which affected acquisition process. Collection mostly included books and journals and 90 per cent of books and reading materials were imported from abroad to support learning and research. The study provided an outline of various factors that influenced collection development in academic libraries in Pakistan and gave an insight to selectors of library resources to consider these factors for building collections.
(Pandita & Singh, 2016) studied about the document procurement preferences among the libraries associated with institutions of higher learning across India. He analysed the amount and percentage of budget spent by the libraries for procuring print and electronic resources. Twenty leading institutes were taken for study, each from Universities, Institutes of Management and Institutes of Technology based on the ranking list by Ministry of Human Resource & Development, Govt. of India. He found that the document procurement trend among Institutes of Engineering & Technology and Management was more towards e-resources whereas print was still the preferred source of information among the University libraries.

(Horava & Levine-Clark, 2016) conducted a survey about the current trends in collection development practices and policies in selected libraries in North America. He observed that the policies have not kept up with changing times and sometimes they were very restrictive. They found that libraries spend huge amount for large packages of journals which immensely helped research work. The budget also covered expenditures like metadata, discovery services, institutional memberships, resource sharing etc. in addition to traditional focus. Libraries supported open access through funding of article processing charges & memberships. They concluded that libraries have moved to collective collection with many projects to collaborate on print collections.

2.3 Collection Development Policy

(Parmeswaran, 1997) defined collection development in university libraries and discussed centralised and decentralised patterns. He suggested a policy for collection development and commented that book acquisition should be made a continuous program. He mentioned about developing a special collection such as area studies and that funds should be kept apart every year for developing this collection. The author recommended some inbuilt mechanism for assessing user requirements and evaluating collections in libraries and the need for the involvement of all staff members of the library to develop a balanced collection.

(Vignau & Meneses, 2005) studied about the collection development in Cuban university libraries using an example of 16 centres of higher and technical education with a poll as the technique for gathering data. They proposed a model for collection development policy for university libraries which included elements like general and
specific objectives of the policy, audience, user studies, elements of collection, selection, acquisitions, discarding policy etc. They commented that the quality of collection and the services offered depended on the selection and acquisition of information resources. The authors stressed that policies should facilitate decision making, support the work of professional managers and provide information to all its members.

(Cabonero & Mayrena, 2012) in their study identified the current practices in collection development to determine whether these practices are within or outside the Commission on Higher Education and Philippine Association of Academic and Research Libraries. They also identified the comments and suggestions of the respondents with regards to the collection development policy. They discussed about the users’ perception of the responsibility of the librarian, faculty and students in selection and acquisition of resources, book and e-Resources selection practices, loss and replacement practices, copyright practices etc. The authors also recommended an annual revision of the policy to incorporate new policies.

(Mangrum & Pozzebon, 2012) studied about the use of collection development policies in electronic resource management. They conducted a content analysis of Collection Development policies in a sample of 41 schools. The study revealed that almost all libraries addressed the traditional elements of collection development, but only half of them mentioned electronic licensing issues and they were mostly general statements. An evaluation of the policy indicated that the lowest ranking criteria like assessment, consortia and licensing revealed the failure of libraries to use policies to guide internal functions of the e-Resources lifecycle. However an encouraging fact was that the libraries consider patron’s perspective when they select e-Resources. The authors pointed out the necessity of coordination and cooperation for acquisition, implementation and use of e-Resources along with a well-developed policy which ensures decision making is consistent and collection development efficient.

(Chaputula & Kanyundo, 2014) in their case study described how the absence of a collection development policy affected collection development activities at Mzuzu University Library. The data was collected using a semi-structured questionnaire, tape recorder and coding schedules. The study revealed that collection development activities like selection, acquisition, weeding and preservation greatly
suffered due to the absence of a policy. The staff had no clear idea what materials to procure, how to procure, how to handle worn out items etc. Though academic staff was consulted for selection of information resources, there was no benchmark for assessing the viability of the selection and acquisition decisions. User needs assessment was also not done. The researchers finally decided to ask the library management to formulate a policy as it exposes gaps in the collection and directs the growth of collection based on current and future needs.

(Moore, 2015) gave an overview about the current e-books scenario in academic libraries. She studied about user preferences and user behaviour with e-Books, technological barriers, business models and e-Books collection development policy. Motivations for preferring e-Books included anytime anywhere access, full text search, potential to store numerous e-Books on a single device, anti-theft, anti-shelving features etc. In the case of e-text books it was found that arts and humanities students had less preference for e-Books. Issues included general interface issues, downloading problems, searching etc. The author concluded with items to be considered in an e-Book collection development policy like coverage of policy, criteria for selection, funding, duplication, model preferences, downloading, e-readers and weeding etc.

2.4 Evaluation in collection development

(Shibanda, 1994) in his study of Moi University Library, Kenyastated that performance and mission of university libraries must be reflected in the functions and objectives of the parent institution and the central aspect of the library in achieving its goals is the performance measurement of collection development. He focused on the issue of user-oriented collection and stated that to satisfy the library’s clientele which included students, research, teaching, non-teaching and the general public a comprehensive collection would be appropriate rather than a selective one. He pointed out the inadequacies in collection development, provisions across faculties and departments at all levels and the absence of a collection development policy. He noted that the library collection suffered in sufficiency, scope and size and suggested short term and long term strategies for change.

(Aked et al., 1998) in their study designed a collection evaluation plan to better understand the use patterns of reference collection in the University of Toledo’s
William S Carlson library. Several qualitative and quantitative methods were used including physical counting of every reference item used, in-house patron questionnaire and interview and a questionnaire for the faculty. The questionnaire was intended to determine the usefulness of the library's reference collection for faculty's teaching and research needs. The results revealed that almost 50% of the faculty used the reference collection for their own research. The greatest percentage of use was from members of engineering and pharmacy colleges and lowest from law college and community &technical college. In terms of use by disciplines, the Humanities faculty used the collection the most. It was also found that there was low use of catalogues, indexes and bibliographies and minimal interaction with librarians. As a result of the survey new reference titles were purchased and existing ones updated in the College of Pharmacy. The authors concluded that based on the study, criteria for weeding reference collection could be developed, new collection development policies created or existing ones revised and collection management of reference collection improved.

(Singh, 1999) in her case study of evaluation of collection development and reader's services at IIT Library Bombay discussed the acquisition, use and adequacy of library collection and provided users' and librarian's suggestions about collection and services. Data was collected using the questionnaire method. The users requested for more periodicals of interdisciplinary nature. While some of the collections like books, periodicals, conference proceedings etc. were considered adequate by majority of users others like reports, patents etc. were considered adequate by students but faculty refrained from giving their opinion. Suggestions were made for modernisation of library services and for orientation of professional staff towards latest developments as well as exposure to new technology devices.

(Dennison, 2000) is of the view that the application of statistics to a checklist study increases the value and usability of the study. If the list is divided into groups on the basis of their importance to the collection then statistical analysis can be used to determine if important materials are purchased. Advantage of this type of study is the objective interpretation of the results. But he also concluded that all the other disadvantages of the checklist analysis still remains.

(Gyeszly & Ismail, 2003) described the collection development project undertaken at American University of Sharjah Library in response to institutional needs and on-going accreditation processes. A systematic evaluation of the collection
was done to ensure that the curriculum and research needs of the university were met and the standards set by comparable US universities were achieved. As a result of the project faculty involvement in collection development greatly increased, collection policies for academic departments and programs were developed, periodicals collection was improved, retrospective collection development was implemented and unique materials to the region and gap subjects were identified. The authors claimed that the projects became a model for UAE libraries and a potential example for the Arabian Gulf region.

(Agee, 2005) encouraged librarians to be more informed about the value of collection evaluation as it informs about what already exists, what is needed and whether collection development goals are being achieved. Three evaluation methods were explored by him viz. user-centred evaluation, physical assessment and assessment of specific subject support. He suggested simpler tools like core curriculum guides and standard documents of professional organizations as an indicator of collection’s effectiveness in support of special interest subjects. He is of the view that faculty collaboration and searches focussing on organizational publication as part of evaluation will discover the strengths or weaknesses of specific subject collection.

(Sinha & Tucker, 2005) described the new academic program and its impact on collection assessment at University of Nevada, Las Vegas libraries. The authors focused on the role of collection development department in university’s approval process of new programs and of subject librarians in assessing how well the library collection meets the demands of new programs proposed by faculty. They stated that the library assessment report is an integral part of the new program’s proposal documentation and that one of the specific duties of subject librarians was to create a collection assessment report for every new program at the university. The process used by subject librarians to develop tools and guidelines to assess library collections to support new academic programs is described. The report is a valuable documentation for collection developers and library administrators providing library services and for strategic budget planning.

(Beals & Gilmour, 2007) assessed monographic collections in zoology in three academic libraries using both Brief test method and WorldCat Collection Analysis. The authors found that both methods can be used to assess any type or size of
collection and for narrow and broad subject areas. But interdisciplinary topics without a fixed classification were difficult to assess by both methods and though they could provide a good analysis of existing collection, an accurate assessment of recent acquisitions was not possible. They finally concluded that together both processes can highlight strength and weaknesses in library collection and result in improved collection management.

(Borin & Yi, 2008) identified environmental factors in collection evaluation, established ratios that needed to be addressed, provided a set of indicators for collection evaluation and proposed guidelines for a new model. Ratios like print vs. electronic, book vs. journal, user centred vs. collection centred etc. and indicators like general capacity of the collection and usage were used for evaluating collections. They pointed out the strengths of the proposed model as reactive to change and adaptive to fit in a diverse and changing information environment. They concluded that there was no single way to evaluate collection in the changing complex environment and evaluation needs to encompass both the traditional and electronic.

(Henry, Longstaff, & Kampen, 2008) illustrated the result of a collection analysis done by a small academic library using an online analysis tool combined with a physical inventory of the collection. As a result of the data collected the strengths, weaknesses and imbalances in the collection and the value of the library’s print and electronic book collections could be determined. New collection development policies were instituted to correct disproportions in subject collections which resulted in increased faculty involvement and changes in book selection process. Peer group comparisons revealed that some weaknesses like the age of the collection were widespread. Emphasis was given for developing core collections in key academic programs. The authors declared that evaluation resulted in a new system of collection management, one that integrated faculty involvement with a more focused approach in selection.

(Teel, 2008) discussed about the results of an inventory project conducted in the East Carolina University Teaching Resources Centre that improved the reliability, accuracy, relevancy and circulation of the collection. She pointed out that shelf analysis data was applied for long range planning, and for bringing changes and improvements in the collection development process. The case study showed that the
strategic plan produced significant outcomes in improving and increasing services and resources for users.

(Ciszek & Young, 2010) examined the methods of diversity-related assessment useful for large academic libraries. They explored methods like circulation and use statistics, comparison to standard bibliographies, focus groups, patron interviews, surveys etc. The authors recommended that academic libraries should incorporate diversity-related materials in collection development policies and academic librarians should develop proactive methods for measuring diversity in their collection.

(Hyödynmaa, Ahlholm-Kannisto, & Nurminen, 2010) in their case study described the application of collection mapping method in a multidisciplinary university library and demonstrated how to gather data on subject-based collections and their usage. Collection mapping is a technique to examine the state of information resources both quantitatively and qualitatively in a subject area. The authors commented that it is an excellent way to analyse both print and electronic collections. The results revealed to the faculty the depth and quality of the collection and its strength and weaknesses. They also commented that the process comprising shelf-scanning is a good basis for weeding and acquisition decisions.

(Borin & Yi, 2011) in their study tested a multi-dimensional collection evaluation model to assess an academic library collection through capacity and usage indicators. The study defined the scope of collection-capacity which included locally owned materials, those available through ILL, subscribed e-Resources and free e-Resources. Regarding how to measure capacity of the collection, the authors recommended expenditures on collections as the unit of measurement. To assess usage of the collection gate counts, database/webhits, vendor provided database statistics, circulation statistics, citation analysis etc. were used. The authors stated that examining the usage of the collection together with capacity measurement was a very powerful method of assessment which can provide very valuable data.

(Tucker, 2012) analysed e-book collection in an academic library and usage trends by subject and publisher. Two e-book packages NetLibrary (one-time purchase) and Ebrary (subscription based) over a period of three year usage were analysed. The results revealed a higher usage of Ebrary and decreased usage of
NetLibrary. The author commented that subject analysis was useful to identify subject areas with high usage of e-books and publisher analysis provided a list of publishers that had heavy use. The paper helped to compare two different models of purchasing e-books and helped to select e-books for teaching and learning.

(Hussain & Abalkhail, 2013) in their case study of King Saud university conducted a survey among the engineering students to collect information about the level of usage of library collections, services and the satisfaction of users. Data were collected from faculty, research scholars and students of engineering regarding purpose of library visit, document usage and location, awareness about library services, infrastructure facilities and problems faced by users. Findings of the study revealed that research scholars consulted reference books and current research works and other students used library to issue and return books. While users were satisfied with the facilities they also had problems accessing computer facilities. The percentage of usage of e-Documents and non- book materials was very low and the author recommended systematic training of library staff on the usage of latest technology.

(Adzobu, 2014)in his case study assessed priority setting and user needs assessment in a public university library in Ghana. Official university documents were analysed and interviews conducted with digital library patrons. He identified three user communities’ viz. staffs who are experts in digital library system, scholars and other visitors with domain expertise and knowledge of library systems and users with different levels of domain expertise and low level of library system knowledge. He evaluated the scope and access of e-Collections, effect of service and spaces in the physical library. He observed that users had different perspectives and expectations about their information requirements. He concluded that the success of the digital library system could be managed by offering simple default environment for naïve user and the full power of functionality to the expert user.

(Dzurak, Falloon, & Cope, 2015) examined the interdisciplinary nature of East Asian Studies in College of Staten Island New York, to evaluate collection. OCLCs WorldShare collection evaluation tool was used for evaluating the existing collection. They also conducted a citation analysis study in key Asian studies journals. An analysis of core journal subscriptions was done along with comparing electronic resources holdings with holdings of peer institutions.
Vendor and publisher tools were explored and the authors opted a patron-driven acquisition program to satisfy the immediate needs of patrons. They found that traditional methods of collection development were inadequate and a variety of new tools and methods were to be used.

(Duncan & O’Gara, 2015) explored methods for creating a flexible assessment model using qualitative and quantitative data. They suggested the development of a rubric in which each element of selection, management and assessment may be weighted depending on institutional priorities. Libraries should determine how to communicate the results of evaluation to administrators, academic departments and the campus community. They also recommended to start new partnerships and strengthen existing ones and to monitor the shifting collections environment and adapt accordingly.

(Liu, 2015) analysed the social work collection in Hong Kong Baptist University with circulation statistical data. The scope of study was print books and audio visual materials for a period of four years. The high usage of the collection revealed the adequacy of the social work collection of the library. The study was an attempt to conduct a collection analysis on a cross-disciplinary subject in a cost-effective manner. In addition to revealing the strengths and weaknesses of the collection the study also revealed multiple editions, multiple copies and obsolete titles which helped in the weeding process.

2.5 Collection development of electronic resources

(Seetharama, 1997) discussed the impact of IT on collection development and management. He advised to redefine Collection Development Policy to include acquisition of e-Resources and traditional documents and to cover issues of cooperation and remote access. He described the use of networks for collection development activities, resource sharing and networking, collection evaluation and the role of libraries and librarians. He explained about the six R’s of selecting new technologies namely review the mission of the library or information centre, refocus the direction to keep in step with clients and information environment, redefine client’s needs, relate with staff and suppliers, revamp the activities and services, and recreate by using new technology. He commented about the key issues in collection development viz. ownership vs. access, cooperative efforts and evaluation. He
concluded by mentioning about the challenges to maintain, nurture and optimise the resources of the libraries with the help of new technology.

(Rao, 1997) discussed about the impact of CD-ROM, internet and digital libraries on collection development. He remarked about the inadequacy of traditional methods of evaluation like size, amount of collection used, current growth rate, expenditure on collection etc. to evaluate a library in the context of advances in IT. In the modern context, availability of CD-ROM databases and access to internet success rate is also equally important. He suggested that one aspect of evaluation is keeping track of what is missing and what should be replaced, the other aspect being able to identify less used document which can be stored in a different location. Finally he opined that the policy for collection development should take care of recent advances in information technology and its impact.

(Norman, 1997) investigated the effects of electronic information resources on collection development in 15 academic libraries. He discussed about the types of electronic information resources, budgetary considerations, collection development policies and licenses. His study revealed that nearly 53% academic libraries had collection development policies for electronic information resources. Regarding selection tools, libraries used both traditional criteria and the newly emerging criteria when selecting electronic publications. E-Mail was used to facilitate communication among subject specialists and also by patrons to request new resources. He concluded by commenting about the changing role of collection development librarian as a quality filter and collaborator and the need to keep up with current technology to perform the job effectively.

(Amudhavalli, 1997) discussed problems of collection development in traditional libraries and how it can be tackled in the IT environment. Tele and satellite communication widened the scope of electronic information access which had a profound impact on the information acquisition and customer services. She commented about library collection being inadequate, lacking currency and with space problems. In the electronic environment a publication need not be owned and information is expeditiously delivered but the challenges of integrating electronic resources with traditional forms were immense. She also pointed out problems like the cost factor involved in the acquisition and access of electronic resources, lack of
ownership of resources to claim funds from the authorities, evaluating the sources available and acquiring and servicing the sources required.

(Ashcroft & Langdon, 1999) in their research study investigated the benefits and constraints of purchasing electronic journals in universities in UK and North America. A survey was conducted among the serials librarians and the benefits of e-Journals revealed by the research findings included currency of information, ease of search and browsing, multi-user access, downloading facility, space saving etc. and constraints included insufficient software/hardware support, lack of permanent archiving, cost, poor communication from vendors, site license issues etc. The authors winded up with the librarians' perceptions regarding electronic journals and their concern about the complexities of the systems and lack of standardisation between publishers.

(Alford, 2000) discussed about the selection and acquisition of materials in the digital age and the organisation and management issues associated with it. The selection principles discussed include developing balance of subject areas reflecting community needs, building collection cooperatively and with breadth and depth, serving as quality control agent for print and electronic information, eliminating bias in building collections and organising digital information for easy access. The author also discussed about the negotiation skills needed while acquiring electronic products and the importance of systems staff becoming involved in the selection and acquisition decisions. He enumerated some basic negotiation rules like honesty and mutual respect, balancing the rights of both sides and benefit for both parties, being open to other's point of view, listening to alternative proposals etc. He concluded that in the electronic environment the selectors must be more aware about the technical, legal and acquisition issues and the library must become more flexible.

(Kovacs & Elkordy, 2000) offered a practical discussion of developing and implementing a collection plan for building Web based e-libraries. They recommended four steps to create an e-library collection plan viz. (1) determining the purpose of e-library in which the planning areas included patron population, resources, services and physical, intellectual and technical access (2) develop a collection development plan (3) collect, evaluate and select resources for e-library collection and (4) design, create and maintain Web-based e-library collection web
site. The authors provided guidelines and practical strategies on how to find, identify, evaluate and select Web-based information resources.

(Thornton, 2000) examined how electronic resources have impacted traditional library practices and how they have started changing. She found that with the purchase of audio visual materials, selection became a group activity involving subject specialists, reference librarians and technical staff and licensing became an important factor to be considered before purchase. She added that in consortia products are purchased at a better price but here also the role of the selector is diminished. She described the transformation by a discussion of OhioLINK and its effects on a member library.

(Ashcroft, 2002) in her study discussed issues in developing, managing and marketing electronic journal collections. The financial concerns included subscription costs, archiving costs and the cost of systems to support access to e-Journals. She pointed out the problems of duplication in the case of bundled database packages, the benefits of library consortia and changing user expectations. The survey revealed the academics and students giving prime importance to the issue of accessibility with convenience rating second. She noted that effective promotion could stimulate use of library collections, establish communication, improve awareness of available resources, provide guidance and user education. She also found publisher/supplier statistics as the best means of evaluation of e-journals. She concluded by stating that in addition to library staff requiring IT skills there should be continuous user education and training also.

(Mutula & Makondo, 2003) in their case study of University of Botswana Library discussed collection development practices and the skills needed for librarians to effectively procure electronic resources and the users to effectively use the resources. They pointed out the necessity and relevance of professionals responsible for collection development acquiring skills like web authoring, internet searching and skills to select and manage electronic information. Training for them should include aspects like search engines, universal resource locators, e- Resources, software and hardware trouble shooting etc. The professionals also need business and management skills. The authors ended up by stating skills can be obtained through exchange programmes with other libraries, workshops, seminars and short courses.
(Level & Myers, 2003) were of the view that digitising collection development workflow improves the efficiency and accessibility of libraries. The creation, development and implementation of web accessible collection development tools were discussed. A website for collection development contained online tools, web resources, work flow processes, instructions for selectors and staff and information for patrons. They concluded that online resources provide enhanced organization and seamless access to information.

(Salinas, 2003) discussed how the libraries address the digital divide through collection development. The digital divide according to him is the disparity between individuals and/or communities who can use electronic information and communication tools, such as the internet to better the quality of their lives and those who cannot. Access to technology is a fundamental element of the divide but even providing physical access cannot bridge this divide if the person lacks computer skills and literacy and computer literacy development was the viable solution. The lack of relevant content can have a negative impact and libraries can tackle this by subscribing to diverse content databases. He concluded by stressing the need for partnership among the institutions of society if the digital divide is to be addressed properly.

(Kiondo, 2004) in her case study of University of Dar es Salaam Library discussed issues related to selection and acquisition of e-Resources in the electronic environment. She studied about selection and acquisition of printed academic and research resources, commercial e-Resources and web resources for teaching, learning and research. The study also covered collection development policies, ownership and access issues, IT skills of staff and users, financial issues, infrastructure support etc. She found out a number of challenges to be addressed for maintaining a hybrid collection which included financing and costs, justification for selecting e-Resources, identifying e-Resource usage levels, IT skills of users etc. The library also had to support technology enhanced teaching and learning and distance education programmes of the university. She wrapped up by commenting that to share costs of acquisition of e-Resources and to balance ownership and access issues consortia and networking have to be better exploited.
(White, 2004) described a strategic partnership between the Business Library and College of Business Administration at Penn State University to evaluate and provide funding for e-Resources to meet curricular and research objectives of faculty in business-related academic units and the rationale behind such a partnership. He discovered that the partnership provided a comprehensive view of the research needs, the status of current e-Resources of the university and created a good working relationship between the college and the library. As a result of this alliance library professionals had better awareness of faculty’s current research projects and needs and faculty became more aware of the library resources and services along with the research interests of other faculty in other departments. Collaboratively building electronic resources have reduced the cost of duplication and the shared funding model assured that both parties were active partners in the assessment of resources. The partnership also provided a framework for including e-resources into the planning process.

(Vignau & Quesada, 2006) discussed the topic of collection development in a digital environment. The study is based on the development of a user-oriented concept of digital collections. The authors proposed a cycle to create a digital collection which included stages like gathering, evaluation & organization of information and construction & maintenance of digital collections. The authors concluded by giving the user’s perception where the user has the opportunity to consult several collections in a single digital library and create his own personalized library where only the required information is stored.

(Emojorho & Nwalo, 2009) investigated the availability and use of information and communication technologies and how they affected collection management in University and Special libraries in Niger Delta Region, Nigeria. Questionnaire was used for collecting data which was distributed to users, library staff and heads of libraries. They found that the availability and use of ICTs for collection management was very low and that University libraries have more ICT facilities than special libraries. The study also revealed that the availability of ICTs alone does not guarantee their use in collection management but adequate power supply and an enthusiastic work force is also required.
(Flatley & Prock, 2009) conducted a survey of academic librarians to determine how they were tackling the problem of e-Resource overload. The survey sample included the Pennsylvania Academic Library Consortium, Inc. (PALCI) as it included small private libraries to large research libraries. The results revealed that most libraries do not have a definite procedure for selecting and de-selecting e-Resources and decisions are made in a reactive way to different offers and suggestions. The authors suggested that librarians need to be proactive in e-Collection decisions. They should update on new programs and courses and keep accreditation mandates in mind. They recommended developing a collection development policy for e-Collections, getting inputs from faculty and students, developing specific criteria for adding and cancelling resources and making use of usage statistics to justify decisions. The authors concluded that librarians should use a set of standards to manage e-collections.

(Price, 2009) provided tips for electronic collection development for libraries with meagre budget. He stated that regular evaluation of collection is required especially when cost is considered and evaluation and usage statistics provide justification for weeding or adding to the collection. Usage statistics helped in making collection decisions and resources that have little use may be cancelled. Negotiating the price is also necessary to accommodate e-Resources in the budget. He commented about open access being one of the cheapest routes to e-Resources which provided library's with inadequate budget an opportunity to provide access to their patrons. He concluded that library consortia, free scholarly or academic search engines are also helpful to libraries with small budget.

(Horava, 2010) considered the challenges and possibilities for collection management in a digital age. He proposed that though the standard principles of selection such as authority, originality, impact, breadth and depth of coverage are important they must also include new forms of scholarly communication and publishing. He discussed about acquisition activities, access and delivery issues and innovation. The author suggested some ideas that can redefine collection management in the networked era namely focus on what is sustainable, make strategic decisions about formats, changing current practices, partnerships with publishers and vendors, collection librarians must expand their skills and expertise etc.
(Kichuk, 2010) in her case study of University of Saskatchewan Library reviewed electronic resources growth over a 12 year time series. E-Resources included those listed in the A-Z databases list posted on the library’s website. Net and new electronic resources growth patterns over the time series were analysed. The study found three distinct net growth stages related to bibliographic, full text and reference and a pattern of sustained growth rate. Internal and external factors were linked to growth like market availability, library consortium membership, print migration to online, user expectation etc. She stated that new events like economic decline may contribute to growth decline also.

(Kasalu & Ojambo, 2012) in their study discussed the application of ICTs in collection development in private University libraries in Kenya. They used survey method, three universities and a total of 72 respondents which included librarians, faculty deans and PG students were taken for the study. They collected data based on activities like user needs analysis, collection development policy, budget, selection, acquisition, evaluation and weeding. The study revealed some of the challenges faced in collection development like slowness in selection process and delivery of orders, slow internet connectivity, lack of cooperation by teaching staff, lack of staff, budgetary constraints etc. The authors also discussed about the challenges in the application of ICT in collection development and acquisition of electronic resources. Finally they recommended that ICT needs to be applied in all aspects of collection development.

(Sathyanarayana, 2013) described collection development as one of the most demanding professional functions of a library requiring an understanding of the user’s needs and the information and publishing industry. In the e-content world the controls exercised by content creators and providers and the laws regulating ownership, pricing and usage rights of e-content makes it one of the most challenging functions. He focused on the challenges of e-collection development and discussed various business models for e-content procurement like perpetual access rights, limited period access rights, subscription model, pay-per-view model, etc. He also discussed about managing the rights and licences and the access and ownership issues.
(Kaur & Walia, 2016) examined the current practices related to e-Resources collection development in management libraries of India with special reference to the National Capital Region of Delhi. A well-structured questionnaire was administered to the librarians. Their study revealed that collection development decisions were taken by library committee or purchase committee and no librarian had complete control over e-Resource collection development activities. Also there was a lack of collection development policy for e-Resources. They recommended higher budget allocation, forming consortia of management institutions, standardized pricing models for these libraries and promotional measures like vendor based training, information literacy programs etc.

2.6 Research gap

The survey of literature attempted to present studies related to different areas of collection development such as selection, collection development policy, evaluation of collections, impact of IT on collection development, collection development of electronic resources etc. The reviews reveal that a large amount of literature is available related to different aspects of the topic. Majority of the studies are conducted abroad though a few good studies have been done in India also. The researcher did not come across any studies related to the topic in academic libraries in Kerala. As significant changes are happening in higher education in the state and the role of libraries has to be highlighted there is the need to conduct this study in university libraries in Kerala.

References


