

## Chapter 2

### LITERATURE REVIEW

#### 2.1 Introduction

Serial prices had escalated rapidly for many years and was the largest inflationary element in the budget of higher educational institution libraries. Studies on journal overlaps and duplications have been carried out widely in western countries for the past fifty years. However, in Malaysia such studies are still in the early stages. Studies on the degree of journal overlaps are important in order to promote sharing and access to current information more effectively. In this chapter, different perspectives of overlap and methods of resource sharing will be discussed in order to ascertain a quality journal collection in local higher educational institutions. An understanding of terminology in collection studies is necessary to avoid confusion. In this study, the terms of overlap, duplication and replication are inter-related and the definitions are as follows:

- 1) Overlap means two libraries acquiring the same title.
- 2) Duplication occurs when one library has more than one copy of a title.
- 3) Replication is where more than two libraries own the same title.

(Hooper, 1990, p. 1)

According to Potter (1982), there are four categories of overlap studies, which proves that libraries do duplicate the holdings of other libraries:

- 1) Studies undertaken in connection with union catalogues. The study conducted under this category checked all distinct titles against a union catalogue. One of the earliest study which fall under this category was Merritt's (1942) quantitative

method which investigated the extent of overlaps indicated by resources found in a union catalogue.

- 2) Studies of the feasibility of a centralised technical processing. A centralised processing center is in charge of the acquisitions and cataloguing for a group of libraries. For example, libraries within one geographical region could buy the same titles required simultaneously by other libraries. The rationale behind this centralised operation is to save processing costs by handling every single title centrally. Nugent's (1968) study described an attempt to develop a centralised processing unit for six New England's state university libraries.
- 3) Studies of cooperative collection development. These studies investigated the degree of duplication among a group of libraries. A high percentage of duplication indicated the need to have a cooperative collection programme. This could ensure library patrons would have full access to other library collections besides having the greatest number of distinct titles.
- 4) Research studies. The last group of overlap studies are concerned with achieving a better understanding as well as observing the phenomenon of collection overlap.

In this chapter, further discussion of previous studies based on these four categories are expounded in order to ascertain the extent of journal duplication of library holdings.

## **2.2 Overlap Studies**

Overlap studies have been carried out for many years and were sought to describe quantitatively the ways in which library collections were alike as well as how they

were different. Overlaps between collections can reveal aspects and patterns of institutional information collection, storage and access and more practically, focus on a variety of methods for providing improved access to collections. Many libraries have sensed the alarming situation of economic conditions and its inflation impact on serials pricing. Thus, overlap studies are needed to study the degree of overlaps in library collections between local network libraries, regional state libraries and research university libraries. Most overlap studies were comparisons of monograph collections. Nevertheless their findings are still relevant and can be compared with studies of serials overlap.

An early overlap study which was the first quantitative comparison of library resources was carried out by Merritt (1942). This study was based on research made from union catalogues. It was carried out by counting the number of distinct titles represented in regional union catalogues and measuring the degree of duplication among major research libraries. Merritt's study had motivated other studies on collection overlaps. The existence of the Library of Congress Union Catalogue was started due to a collection overlap study. As Potter (1982) pointed out:

The mention of the Library of Congress Union Catalogue, later the National Union Catalogue, is important for it demonstrates Merritt's essential understanding of the role of collection overlap studies in planning and organizing union catalogues.

Based on Merritt's study on collection overlap, it was possible to estimate the degree of overlaps that could guide those who manage union catalogues to decide which library should be included or excluded in the union catalogues. Merritt drew his

sample from catalogue cards from the Library of Congress Union Catalogue and checked against 129 other libraries. In addition, he also analysed the amount of duplication among the 46 members of the Association of Research Libraries, all of which were included in the 129 catalogues that were checked. (Potter, 1982, p.6) Merritt's unmatched major quantitative study on collection overlap, indicated that there was unnecessary duplication and the saving of funds could be used for the acquisition of other materials that were not available among the participating libraries.

Altman (1972) studied the collection overlap and diversity among secondary school libraries in New Jersey. The study also used union catalogues. Altman's research was slightly different from Merritt because it also studied on the entire collection of an interlibrary loan network. However, the purpose of the study was the same as its intentions was to investigate ways to assemble libraries to form union catalogues. The results showed that 52 percent title overlaps among thirty-one school libraries. Altman sampled collection was from New Jersey secondary schools and found that 48.1 percent of unique titles were available among the thirty-one schools. Altman encouraged more studies to be carried out in order to help school librarians establish cooperation and possible inter-library lending network among schools. Cooperation ventures can help achieve the goals of school library to provide access to a wide variety of materials that support and enrich the curriculum as well as stimulate and satisfy the individual learning interests of the students. Altman's findings proved that schools owned a high number of unique titles which represented, at minimum, 10 percent of their collection. This had implications on the establishment of regional and multi-district centers, such as having a clearinghouse to send requests and



allowing the schools to exchange resources freely.

The study of overlap in serials collection was fairly recent. German, Kidd and Pratt (1997) studied serials overlap in higher educational institution libraries in Glasgow. Although the findings of their studies in the degree of overlap were less than anticipated, it was still consistent with earlier monograph studies. The project was carried out with the knowledge that collection overlap can help provide a stronger rationale for inter-library loan and resource sharing. Information was gathered through data collected on serial holdings. The data obtained from each library in electronic format were matched by ISSN or title. These current subscribed serial titles were examined rather than the entire collection. Out of the 12,903 individual serial titles in this research, 78.43 percent represented unique titles, 21.57 percent were held by more than one library, and only 8.21 percent were held by three or more libraries. The situation for non-university libraries in this study was found to be similar. The figure for unique title holdings remains very high at 80.53 percent. This result revealed that overlap studies on serials was consistent with the findings for monograph collections.

The second category of overlap studies consist of those ascertaining the feasibility of setting a centralised technical processing center. Nugent (1968) conducted an overlap study based on current acquisitions and the total holdings of six state universities in New England. This study was carried out as Nugent was interested in developing specifications for a regional processing center for these six university libraries. His findings indicated that there was about 39.7 percent title overlap of holdings between pairs of libraries among the six universities and this had increased

to 47 percent when the research was only conducted on current imprints. Nugent's results revealed a high commonality and overlap of titles and this data was needed to predict the degree of joint use of cataloguing information.

In the same year, Parker (1968) studied five university libraries in Washington DC to investigate the plausibility of setting a jointly owned computerized processing center. Parker presented his data in the same manner as Nugent (1968) in ordered pairs to show overlap between each pair of libraries. The percentage of overlap was close to Nugent with an average of 48 percentage. Both studies showed a high degree of commonality among the sampled titles.

Another study by Knightly (1975) also found similar results with that of Nugent and Parker in terms of showing a high degree of overlap or commonality between pairs of libraries with an average of 52.2 percentage overlap. Knightly studied the relationship between subject collections and curricula among a group of libraries in Texas. He selected 845 titles from the 1968 annual volume of *Book Publishing Record* and divided the titles into 19 subject areas. All selected titles were checked against the public catalogues of 22 state supported senior colleges and university libraries. The results showed there was a certain degree of overlap among institutions that offered advanced degree in a particular subject.

Studies on the feasibility of having a centralised processing operation was not totally successful, but the underlying concepts of cutting costs by preventing duplication of efforts were understood by many future librarians. For example, OCLC (Ohio Cooperation Library Catalogue) and other bibliographic utilities centralised their

processing through a computer-based networks (Potter, 1982, p13). Based on two categories of collection overlap studies, it is indicated that duplication occurred in all types of libraries and at different decades too.

The third category of overlap studies focused on cooperative collection development where libraries agree to cooperate in the acquisition of materials so as to avoid duplication. This also helped to reinforce existing ideas of cooperative collection development when libraries faced tight acquisition budgets. Cooper, Thompson and Weeks (1975) examined the degree of title overlap among nine University of California campuses. The results of this study revealed that 25 percent of the titles held at Berkeley were duplicated by at least one of the three other northern campuses, and 44.9 percent of the University of California at Los Angeles titles were duplicated by at least one of the four other southern campuses. Besides the high degree of overlap among the different campuses of University of California, the outcomes also revealed that duplicated items are heavily used and there was high percentage of unique titles too.

Moore, Miller and Tolliver (1980) studied collection overlap in the University of Wisconsin (UW) libraries. They investigated in detail the information about the current overlap in the acquisitions of the UW System libraries. They sampled data obtained from archival tapes from OCLC (Ohio Cooperation Library Catalogue) for two years. More than 392,000 monograph records created by all eleven libraries were compared to determine overlap rates. This study was carried out with the intention to support the development of a cooperative library activity and the possibility of a coordinated acquisition and resource sharing. Their findings

indicated that the overlap percentage was still substantial. The study revealed that 18.16 percent of titles sampled had two or more location codes and 1.05 percent had six or more location codes. However, the percentage of titles overlapped increased to 31.99 percent for two or more location codes and to 2.24 percent for six or more locations when only current imprints were compared. Comparatively, this Wisconsin data showed that the extent of unique titles was higher than duplication with an average of 54.04 percentage. Therefore, collection overlap studies must not underestimate the extent of collection diversity.

The results of the above studies showed that overlap rates between smaller and non-doctoral university were higher than the larger university libraries. This was due to the offerings of similar basic courses for undergraduate level as well as the great diversity of academic programmes at the doctoral institutions. Comparisons were made on four basic academic subject areas including General Literature, Science, Social Science and History. According to Moore, Miller and Tolliver (1980), although there were no clear trends in any of these basic subjects, they suggested that a cooperative acquisitions programme built on existing subject emphasis would produce a larger collection of unique titles or materials. They also emphasized more on the need to identify the core material in each library. Their findings helped to identify some level of required duplication or title overlaps that can help to highlight those collection areas in which duplication can be reduced.

Altman's (1972) findings on libraries having unique titles in a homogenous collection among secondary schools was similar to a serials study in Glasgow carried out for groups of four nursing college libraries. The serials subscriptions in

these four libraries showed that the degree of unique holdings was between 11.4 percent and 40.8 percent, even though the four colleges offer similar courses. Therefore, the findings on monograph studies can be applied to serials studies too.

German, Kidd and Pratt (1997) found that the larger the library, the higher the percentage of unique titles. This was consistent with Potter's findings in the monograph overlap studies. Of the 10,120 unique serial subscriptions taken by the twelve participating libraries, slightly over half (50.1%) were taken at the largest library at Glasgow University, with a further 25.9% was taken by Strathclyde University. This finding was also applicable to duplicate serial titles where these two large libraries had the highest percentage, that is, 56.5%. This study therefore indicated that those libraries with the most specialised collections tend to have higher percentage of unique serial subscriptions. This is similar to Potter's findings that specialist libraries have a higher proportion of unique titles than one might expect from their size. All the findings from German, Kidd and Pratt's study indicated the need to increase co-ordination and consultation of librarians regarding decisions about making changes to serials subscriptions in any particular library.

### **2.3 Duplication**

Generally, duplication exists to meet user needs at the physically distant branch and divisional libraries. Studies on duplication of library collections were usually carried out to minimize duplication due to budget constraints.

Strubbe (1989) analysed the data of an internal collection overlap study at the University of Michigan libraries at Ann Arbor campus between 1986 and 1987. Data

were collected from different branches and divisional libraries. The study found that pricing was not the main factor in the decision to duplicate serial subscriptions. This finding was similar to the study by Rutledge and Swindler (1987) who found that price was irrelevant when making a selection decision as distinct from a purchase decision. Fjallbrant's (1984) studies on periodical use in a Swedish university library indicated that duplication was not the only factor for any cancellation of serial collection. In fact, duplicated titles were more used compared to unique titles. Strubbe (1989) also found that serial duplications occupied about 17 percent of the total serials budget as some titles were in use for general reference or in use for more than one subject disciplines. Strubbe (1989) also found that nearly 98 percent of duplicated titles were written in the English Language. Moore, Miller and Tolliver (1980) also made a similar discovery. The main reason behind this may be because English is widely used as a medium of communication for the dissemination of information in academic environment.

The subject coverage which showed the largest area of duplication according to Library Congress subject heading were those in the field of science, technology and medicine (STM). This was indicated for both monograph and serial duplication studies. Reinke's (1994) studied duplication at the University of Michigan indicated that the majority of titles purchased between departmental and main libraries were concentrated on the subject of STM. The heavily duplicated titles were in STM fields as scientists preferred their materials to be close at hand (Venn, 1929) and their faculty library had to be decentralised. Due to this situation, collection duplication occurred between departmental and university libraries. Reinke (1994) also found that the majority of titles purchased for departmental libraries were held

in the main library of the University of Michigan. According to the study, the existence of such departmental collection presented a continuous threat to the central library effectiveness since the dissatisfied may be able to stay away from the central library permanently.

Strubbe (1989) stated the important role of citation frequency or impact factor reading in evaluating a journal. Generally, all duplicated titles were higher in demand and have higher impact factor compared to those belonging to the unique title group. The ability to recognize the important characteristics of serial duplication can be a basic platform for serial management decision making. It helps future serial managers on the selection criterion for duplication order or managing new subscription in different libraries.

The trend of duplicate serials subscriptions as the basis for a collection cancellation in library was also studied by Chrzastowski and Stern (1994) by using the method of cost per use. The definition of "duplicate" in this study is a paid subscription for journal titles held by more than one departmental library within the same university campus. The research was carried out at two departmental science libraries in the University of Illinois at Urbana-Campaign by using a three month journal use study. Fourteen titles were used for the study at the Chemistry and the Physics/Astronomy Libraries. Thirteen out of the fourteen duplicate serial titles had performed well within acceptable range based on cost per use method, citation frequency, percent of budget usage and simple use of titles. The results of this study supported Strubbe's hypothesis that the average prices for duplicate titles were nearly twice the average price for non-duplicate titles. Besides that, the results showed the percentage of

duplicate titles usage far outweighed the percentage of the budget spent on these titles. For example, the Chemistry Library spent 6.26 % of its journal budget on duplicates while these titles generated 11.5 % of total journal use (Chzastowski and Stern, 1994, p. 194) The findings indicated that there is a correlation between duplicate titles in departmental science libraries that were heavily used and measures of high citation frequency. Sixty percent of these duplicate titles met the criteria of being in the top 50 cited journals. The conclusion from the Chzastowski and Stern's finding was that cost per use method should be a tool for evaluating journal usage. Overall, this study showed that it is more cost effective to maintain duplicate copies than to rely on traditional inter-library loan. Therefore, access versus ownership needs to be considered and revised especially with new data dissemination tools and techniques which are available to upgrade the collections.

## **2.4 Prices and Journal Cancellations**

Another important aspect to investigate is the relationship between the soaring prices of journals and its effect on journal cancellation projects in libraries. The soaring prices of journals pressured library budgets and university allocation decisions. Budget constraints, in a way, target duplicated journals for cancellation or in the deselection list. According to Webster (1990) starting from the 1980s, serial prices had increased rapidly due to differential pricing, decline of the US dollar in the international market, increased profit taking and continued proliferation of publications. Another factor that caused serial prices to soar high was scholarly publications from commercial publishers which were more expensive and rising at a faster rate than scholarly publication from not-for-profit publishers.



In the 1990s, serials inflation made major impact on materials budget in most U.S. academic libraries. Most studies on journal cancellations showed the impact of soaring and spiralling cost of serials on library acquisition budget. From the several cancellation projects (Walter 1990, Barstow 1993), the most used criteria in selecting titles to be cancelled were based on cost and usage. This proved that a serial title cost and inflation rate did play a role in determining its survival in a library collection.

University of Arizona (UA) Library in 1987 till 1989 had one journal cancellation project based on duplication in the collection. This three year project resulted in the cancellation of 3,000 titles that cost about \$200,000 in UA library budget (Tallman and Leach, 1989). Through this project UA Library was left with a core collection of quality titles after reducing the level of duplication. However, because of increasing journal prices, the UA Library embarked upon another journal cancellation project two years later. The criteria used in this project were based on serials inflation rate. The appointed Collection Development Committee in this project assumed no increase in materials budget through 1994-95 and used the serials inflation rate for the years 1989-92. The consequence of this study was the cancellation of US\$700,980 worth in journal titles to avoid losing control of the materials budget to serial inflation by the 1994-95 fiscal year (Bosch and Simons, 1996, p. 56). In this project, high inflation rate serials were reviewed in order to allow the library to regain fiscal control of its materials budget. The second cancellation project had chosen the methodology of using short lists based on high inflation rates as the "population" to be reviewed in order to allow the library to exercise control over the inflation rate of serials subscriptions.

One of the purpose of Fedunok's (1998) study on serials cooperation was to determine whether there were any journal titles that were held by more than one of the university libraries in the State University of New York. All these titles were also in "low use" category and were retained as one copy in the university Center while other centers could gain access via inter-library loan and document delivery services. One of the methods used was the union list of unique titles so as to reduce unnecessary duplication. The second method used was considered low usage titles to be candidates for sharing. Therefore, overlapping and duplicate journal titles are always one of the targets aimed for cancellation when a journal cancellation project is being conducted.

Chrzastowski and Schmidt (1996) indicated that academic libraries made journal cancellations decisions based on economic factors. This was in line with studies conducted by Stubbs (1993) regarding serial cancellations in American Research Library (ARL). Chrzastowski and Schmidt conducted a study on domestic serial cancellation and serial holding records for three years (1992-94) of 10 U.S. academic research libraries in order to analyse the national trend of serial collections. The study found that approximately two thirds of the domestic serial holdings were duplicated by more than one library. It was anticipated that the number of duplicated titles would rise as libraries have been forced to cancel low-used and potentially unique titles to concentrate on core titles. The study also found that there was a correlation between cancellations and marketplace situations (serial budgets continued to decline). In studying this national trend of serials cancellation,

Chrzastowski and Schmidt concluded that regardless of the discipline, libraries were losing strengths in their serials collections as all disciplines have been and continue to be subjected to cancellations in facing the dilemma of serial cost increase.

## **2.5 Journal Citation Reports / Impact Factor**

Many university libraries were concerned with the responsibility of deciding which factors to consider for journal cancellation projects. One of the evaluative tool commonly used was titles listed in *Journal Citation Reports (JCR)*, available on CD-ROM since 1994. *JCR* citation data, published by the Institute for Scientific Information (ISI) covers citation data for thousands of journals based on five criteria. Two significant data from *JCR* which were useful for collection management research were total citations received and impact factor. Impact factor represented a ratio of citations received to citable items, based on citations made in the current year (by all journals in the ISI database) to articles published during the previous two years. In essence, it indicated the mean number of times a so-called average journal has been cited (Nisonger, 1994, 449p.) Eventhough, this evaluative tool (*JCR*) was a global citation data, it could be used in local situations to evaluate journals holdings. Kreider's (1999) evaluation on journal studies in the University of British Columbia had strongly supported large research-oriented university libraries to substitute global citation data for local citation data in the evaluation of journals for selection or deselection process. Kreider stressed that *JCR* global data was only useful for evaluating journal titles mainly for research purposes.

Many researchers and publishers have relied and used Impact Factor data to make decisions with regard to serial selection and deselection, such as Nisonger (1994),

Kreider (1999) and Swigger and Wikes (1991). Publishers used impact factor's concept to promote their titles focussing on the fact that their journals have higher impact factor than those of their competitors. This is used to suggest to serial librarians to consider subscribing the titles on this basis. This marketing approach which is based on 'Impact Factor' was enclosed in publicity letters from marketing manager, such as, journal publications from The Endocrine Society and Cold Spring Harbor Laboratory Press (Altmann and Gorman, 1998). Impact Factor was defined as the worth of a serial to be measured by using the average citation frequency of articles published in the serial. A serial or journal with high ranking in impact factor reading should be considered for retention. The high ranking impact factor of a journal showed it contained quality articles which are highly cited in their own field. Therefore, library cooperative ventures should consider keeping at least one copy of high ranking journals in their cooperative collection even though it is expensive, in order to keep abreast of new development in a particular field.

Altmann and Gorman (1998) investigated the degree of volatility of the impact factor on a group of serials in the field of Ecology. The purpose of research was to determine the possibility of using a single set of impact factor to be the main factor when making reliable selection decisions. In this study, decisions to define a journal's worth was mentioned. It included findings on how variability in impact factor could influence collection development decisions. Altmann and Gorman's study recommended that a factor of at least 3.0 for the cost per impact factor should be adopted to differentiate meaningfully between titles. This should be followed as publication of impact factor at the time above at least two years behind the placement of a new subscription. Altmann and Gorman's study agreed that impact

factor could provide a guide for the retention or for discarding a serial title. Besides this, local studies of serials usage should take into account the final decision on selection or deselection process.

## **2.6 Cooperation**

In response to unfavourable exchange rates and inflationary cost of serials, many libraries are forced to cancel serial subscriptions as a way to cut library budget. This results in the deterioration of bibliographic services that support research and university teaching. Many co-operative ventures have been tried out in both public and university libraries so as to avoid further deterioration of the situation.

Cooperative ventures include cooperative acquisitions, cooperative inter-library loans and document delivery services and cooperative bibliographic cataloguing. The benefits of cooperative ventures among libraries include access to all relevant resources and wider choices of collections among different libraries. With strong emphasis on information technology, current libraries should build their cooperation ventures to become more forceful agents of information dissemination compared to the past.

Serial cooperation should be the focus of library acquisition because they account for the largest part of most libraries' materials expenditure and are subjected to the highest price increase. A number of studies were conducted on the necessities and problems of serial cooperation. Fedunok's (1998) studied four State University of New York (SUNY) serials cooperation ventures in terms of sharing unique titles and reducing unnecessary duplication. The four universities, which carried out journal

use study, were the SUNY University Centers at Albany, Binghamton, Buffalo and Stony Brook. The study was designed "to determine whether there were any journal titles held by more than one of the University Center libraries which received sufficiently low use to justify retention of only one copy, which the other SUNY centers could access via inter-library loan and document delivery services" (Fedunok, 1998). Through this study, SUNY University Center Libraries drafted a plan called "SUNY University Center Cooperative Journals Program". This plan envisage a yearly exchange of information and decision making among the four library systems including a procedure for notification, review and appeal of journal cancellations, acquisition plans and the implementation of agreements and procedures for rapid document delivery from the collection centers. This study produced four lists on the level of usage and the cost of title usage. This list was later refined into a cost or benefit decision rule on journal cancellation or collaborative serials acquisition.

The solution proposed by the SUNY libraries study was the need to establish a comprehensive document delivery strategy which focused on delivering information directly to the end user whenever possible. An American model by Fedunok and Bond (1993) for serial cooperation was made up of the following steps:

- a) Create a union list of serials;
- b) Assure the availability of reliable, user-initiated document delivery service;
- c) Link catalogues and share other bibliographic databases electronically; and
- d) Change the shape of the collections involved, assisted by journal use studies and collection assessment projects (Fedunok, 1998, p. 75).

Duplication that exist in serials collection in academic university libraries was not a new issue as libraries have difficulties balancing their budget in order to keep all titles in times of economic inflation. The spiraling cost of library collections had tremendously lowered the purchasing power of many libraries. Thus, the quest for updated information becomes part of the reasons to propose for a cooperative acquisition programme.

Cooperative acquisition is the coordination of institutions to negotiate collectively with the serial vendor. In a study done by Sol, Arenas, and Garcia (1991) on four universities in Chile showed the benefits of having a center for the acquisition and cooperative use of serials. This study proposed for a center to be responsible for increasing the wide spectrum of titles purchased and the substitution of duplicated with new titles. This has enabled the expansion of collections among university libraries in Chile. In this study, the proposed system emphasized on the latest telecommunications technology to deliver or fulfilled requests for journal articles in a simple and rapid manner. This proposal of cooperative acquisition, however, was plausible as the proposed center will improve the services provided for university faculties especially in highly effective current awareness system and increasing number of titles availability. Most importantly, the project illustrated a net benefit of US \$1.4 million per year with an approximately US \$128.000 investment. This net benefit has supported the notion of cooperative ventures to give more access of titles to users and to save expenses on the duplication of serials among higher education institutions in a country.

One of the current active cooperative acquisitions in South East Asia is found in the Philippines. The Department of Science and Technology Engineering and Science Education project (DOST-ESEP) is one such example. This project enables library members of both groups to have access to each others' collection through the use of card catalogue via the PHNET (Flores, 1996). Hence, this cooperation benefits all Filipino researchers in technological fields. Another example of cooperative ventures on serials among higher learning institutions is conducted in Pacific Northwest region in the United States. The study proposed a cooperative venture on scientific serials in order to increase the number of collection of these serials. In addition, it encouraged cooperation in acquisition and accurate timely delivery of requested articles. The research was conducted on 5 common land grant mission which are geographically separated, namely University of Alaska Fairbanks, University of Idaho, Montana State University (MSU), University of Oregon and Washington State University with the latter as the lead institution (Price and Carey, 1993). Collection of data for the research was in the range of three years. The cooperation was done not only on acquisition but also in deselection of science serials.

Price and Carey's (1993) study revealed that the principal objective of the cooperation grant was achieved as more serials were available throughout the region. According to the study, participating libraries in this grant also looked to cooperation and sharing as a way to offset the adverse effects of limited monetary resources (Price and Carey, 1993) This situation revealed that when serials prices increased it encouraged libraries to cooperate in providing better access to their



users. Cooperation efforts among libraries in the Pacific Northwest were commendable as they aimed to provide extended access to information for all users in the region. Besides promoting cooperative ownership of serials, it also stressed on the investment on document delivery services. Article delivery service, for example, UnCover 2 by Colorado Association of Research Libraries (CARL) is more cost effective especially for cooperation libraries that are separated by vast distances.

Another example of a successful cooperative venture was the San Francisco Bay Area Serials Cooperative project, which brought together the libraries of California State University at Hayward, San Francisco State University and San Jose State University. This was one of the efforts to come to terms with the serial dilemma brought by spiraling cost of periodicals. According to Ritter (1991), their immediate project's goals were to ensure local availability of serials to each university programme, to maintain core collections of essential materials in each library, to assure prompt access to shared materials through augmented document-delivery systems, to free resources to meet demands for new materials and to increase the range of unique serial titles held among the three libraries.

The few examples above indicates that increasing serial prices would affect cancellation of serial acquisition in many libraries. Copies will be checked in inter institution or department libraries in order to avoid duplication. Logically, each library should maintain a core collection and invest or participate in an inter institutional arrangement to access less basic or less frequently used serials. It is important to promote cooperative collection as a solution to the dilemma of rising inflation and declining serial budgets. In a way, it allows researchers or users to have

more access to many serial choices of serials. Through cooperative systems, duplicate serials subscription can be reduced to save on cost without losing access to information.

## **2.7 Consortium / Consortial licences**

A consortium is a group of people or firms who have agreed to work together. As libraries cancell journal subscriptions due to price increase or titles duplicated, research libraries need to form consortia coordination. Consortium of libraries is formed in order to continue to provide access to information materials for their patrons. One of the benefits of having a consortium is the ability to access expensive items which are infrequently used. Six universities libraries in Washington which have a shared – purchased contract for the purchased of *The Eighteen Century Collection* in microfilm is an excellent example of consortium benefits (Ritter, 1991). In Malaysia, there are consortiums of local university libraries coordinated by National Library of Malaysia in collecting Malaysiana materials especially pre-1966 materials (Flores, 1996). The union list of medical serials of UM and UKM medical libraries is also a consortium effort to save cost, thus, enabling both medical libraries to have a richer collection in the medical field.

An example of big academic libraries consortium is OCLC (Online Computer Library Center) which went online in 1971. Currently, this consortium has grown larger and served all types of patrons even outside the United States. In OCLC, sharing of acquisition programs was the starting point for access to electronic resources. With the growing phases of computing networks, more consortiums will be set up. For example, New York public libraries consortium was formed to serve

multitype cooperation efforts in library works.

National Digital Library Federation (NDLF) is the good example of the popular consortium that emphasized on digital library. NDLF comprises 24 partners and four allies, which is a consortium of research libraries that transform themselves and their institutional roles by exploiting network and digital technologies. NDLF is a closed group of self selected participants with a mission to cooperate on designing what must be done to bring together digitized materials that will be made accessible to students, scholars and citizens everywhere.

Inter-library networking between libraries are good examples of cooperation and consortium as it can avoid unnecessary duplication, maximize expenses for library collection and the usage of all available materials among participating libraries. This can provide patrons with more choices of getting resources. Besides that, library collections can be developed into databases and interlinked into a network that facilitates more access to information with faster speed. With the digital library concepts and advances in networking in each participating library does help solve spacing problem in the library.

## **2.8 Summary**

From the studies reviewed, there are certain degrees of collection overlaps among all libraries either in the same geographical region or distinctly apart. However, most studies on collection overlaps were based on monographs, especially books. This preference for comparing the use of journals or serials subscriptions was due to the fact that a serial bibliographic description changes easily over the years such as the title, different volume and issue. Therefore, the sampling based on books will be

easier to monitor. Nevertheless, the findings from book collection overlap is applicable to studies on serials.

The review of the literature clearly showed the many types of studies on collection overlap in order to explain the existence and characteristics of collection overlap or also known as duplicates in libraries. Although collection overlap research was conducted to provide a basis for inter-library loan and cooperation and consortium between libraries in resources sharing, its' findings also helped to formulate policies for maintaining collections in tight acquisition budget situations. The spiraling costs of journals had strained library budgets in the past years. In order to maintain a strong collection of primary resources like journals among local university libraries, a study on journal overlap is needed to minimize unnecessary duplications.

Numerous suggestions have been discussed in this chapter to overcome the pitfalls of collection overlap either within the same geographical region or worldwide. With little information known about journal situations in Malaysia and the prospect of cooperation measures in maintaining good and quality scholarly journal collection, a study that addresses this issue will benefit Malaysian university libraries. The following chapter will present the methodology used to conduct the study of Computer Science journal collections overlap among five selected local university libraries.