RPTTFL MODEL IN COLLECTION DEVELOPMENT IN DIGITAL ENVIRONMENT: A SURVEY ON UNIVERSITIES IN TAMIL NADU

ABSTRACT

The digital age and the new information economy have brought radical changes to the library collection. There exist different collection development models. Recent developments have challenged traditional ideas of "collection" and contributed to new conceptual models, such as the concentric circle; layered conceptions, and a demand-driven collection development approach. A new model, the RPTTFL model, research outcome of the author has been attempted to the changing environment of the digital collection. In this study, the impact of Routine Practices among Library and Information Professionals working in university libraries was analyzed. A structured questionnaire was administrated among the LIS professionals working in 22 State Universities, 28 Deemed Universities, and 2 Central Universities in Tamil Nadu. A total of 520 questionnaires were distributed of which 389 responded and the response rate is 74.80%.The data collected from the questionnaire has been analyzed to fulfill the stated objectives.

Keywords: *Collection Development, Digital Environment, Collection Development models, RPTTFL Model for collection development, Routine Practices*

Introduction

Recent developments have challenged traditional ideas of "collection" and contributed to new conceptual models, such as the concentric-circle and layered conceptions suggested by Gorman (2003) and Lee (2003). Alternative terms for collection-related activities in the digital age have been suggested, including "information resource management" (Savic, 1992) and "content management" (Budd & Harlow, 1997). However, the increasingly dynamic, user-generated nature of much digital content, combined with the convergence and diversification of the roles of information publishers, suppliers, consumers, and libraries, suggests a renewed significance for the traditional collection development roles of selection and evaluation, thus shifting the function of collection Development to Information Resource Management.

Collection development models

. There exist different collection development models. Among the models, a few of them are listed in Table 1.

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Table 1
Collection Development Models

S.No.	Author	Model Name	Description
1	Ferguson (1986)	Structural function systems model	focused on environmental factors within which libraries operate, demands made upon libraries, and support factors that influence library behavior and decision-making process
2	Thomas's (1987)	Thomas's model	centered on the influence of cultural traditions producing organizations in which two modes one for faculty and one for services operate side by side
3	Warwick (1987)	Behaviour model	based on user utility
4	VasilChenko -1988	Two complimentary methods	Balance method — combining various economic and financial considerations with library and educational needs and normative method involving future planning in accordance with norms.
5	Britten and Webster (1992)	Demand driven model	A demand driven collection development approach
6	Schwartz (1989)	Schwartz model	Based on bounded rationality, tacit knowledge, and symbolic content
7	Harloe's (1989)	Harloe's model	Client centered collection development
8	Gorman (2003)	Gorman's model's	Four dimensions include tangible materials owned by a library; intangible materials owned by a library; tangible materials owned by other libraries; and intangible materials not owned by – but accessible through – the local library.

Rpttfl Model

Information resource management in a digital environment has certain attributes such as Routine Practices, Tools and Techniques, Functionality, and Limitations shortly indicated as RPTTFL. The RPTTFL model, the research outcome of the authors, has been shown in Figure 1.

Figure 1: RPTTFL Model - Attributes

Attributes and Factors

Each attribute has factors. The attribute and factors have been shown in Table 2

Table 2 : Attributes and Factors

Routine Practices	Tools & Techniques	Functionality	Limitations
Source Identification	Impact	E-learning	Barrier
Inspiration to use	Infrastructure - Generic	Purpose	Challenges
Usage of electronic resources	Infrastructure - Technology	Mindset	
		Utility	
		Opinion	

Methodology

Among the different attributes of RPTTFL model, the first attribute seems to be Routine Practices. The routine practices comprise three concepts such as "Source Identification", "Inspiration to use" and "Usage of electronic resources". The study was carried out with the objective to find the routine practices in collection development in a digital electronic environment among university libraries.

Out of 389 respondents to the study, 209 (53.7%) belong to deemed universities followed by State universities 164 (42.2%) and Central University 16 (4.1%). The majority of the respondents 139 (35.7%) are from the Arts domain. 90.5% of the respondents are on the status of subordinates and 254 (65.3%) are male. The age of the respondents was grouped and 82.5% of the respondents are in the age group of 41-50 years. Almost 82% are working as Assistant Librarians and 77.1% of the respondents having experience between 6 and 20 years.96% of the respondents have PG qualifications. Out of 389 respondents, 116 (30%) are having Ph.D. qualifications.

Data Analysis and Interpretation

Source Identification

The respondents' views on source identification of electronic information were obtained using six variables. The respondents were asked to rank their preferences. The opinions are shown in Table 3.

Table 3 : Source Identification

S. No.	Description	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6
1	Through Personal Communication	0	126	41	83	126	13
		0	32.4	10.5	21.3	32.4	3.3
2	Seminars and Conferences	24	115	26	117	63	44
		6.2	29.6	6.7	30.1	16.2	11.3
3	Bibliographical Sources in Printed Materials	39	45	61	152	65	27
		10	11.6	15.7	39.1	16.7	6.9
4	Citation in e-Resources	192	38	82	25	52	0
		49.4	9.8	21.1	6.4	13.4	0
5	Use of Internet Search	57	65	179	12	26	50
		14.7	16.7	46	3.1	6.7	12.9
6	All the above	77	0	0	0	57	255
		19.8	0	0	0	14.7	65.6

Percentage given within parenthesis

"Citation in e-Resources" (49.4%)was given highest order i.e. first preference. The variable "All the Variables" (19.8%) and "Use of Internet Search" (14.7%) were also ranked first. Nearly 32.4% of respondents indicated "Through Personal Communication" as their second and fifth preference. Similarly, 29.6% of respondents indicated "Seminars and Conferences" as their second preference, as well as 30.1%, has a fourth preference. The cluster analysis has been carried out to identify the preferred source by the respondents using a dendrogram. At the 20% level, there exist three clusters. The first cluster comprises three variables such as "Through Personal Communication"; "Bibliographical Sources in Printed Materials" and "Use of Internet Search". The same can be named as highly preferred identifiers. The second cluster comprises two variables such as "Seminars and Conferences" and "Citation in e-Resources". The same can be named secondary source identifiers. There exists one isolated cluster with "All the Variable" that can be named a conventional indicator of identifier.
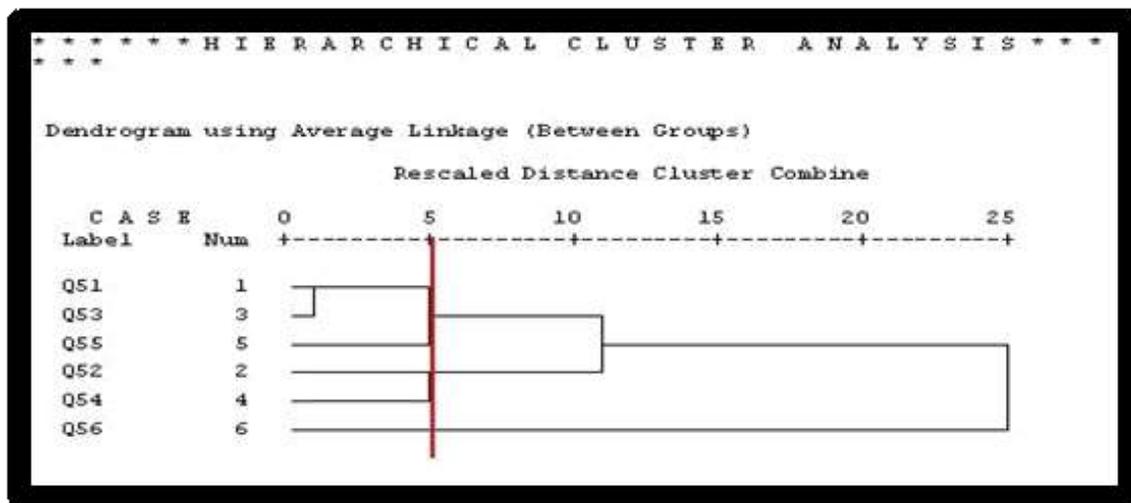

Figure 2: Dendrogram for source identification of electronic information

Source for identification digital information Vs Type of university and their preferences

Table 4 : Source identification of Digital Information Vs. Type of University

Rank	State University	Deemed University	Central University
1	Citation in e-Resources	Citation in e-Resources	Citation in e-Resources
2	Use of Internet Search	All the Variables	All the Variables
3	All the Variables	Use of Internet Search	Seminars and Conferences; Bibliographical Sources in Printed Materials; Use of Internet search

The state university order of ranking was "Citation in e-Resources", "Use of Internet Search" and the other variables stated in Tables 4. The deemed university order of ranking was "Citation in e-Resources", the other variables, and "Use of Internet Search". Similarly, the central university has the same order of preference.

Source for identification digital information Vs Subject domain of university & their preferences

Table 5 : Source of Digital Information Vs. Subject Domain

Rank	Arts	Engineering	Medical	Multi	Others
1	Citation in e-Resources	Citation in e-Resources	Citation in e-Resources	Citation in e-Resources	Citation in e-Resources
2	Use of Internet	All the variables	All the Variables	All the Variables	All the Variables
3	All the Variables	Use of Internet	Bibliographical sources in printed	Bibliographical sources in printed	Use of Internet

It is observed that identical opinions were expressed by the respondents of "Medical", "Multi" and "Others" domain whereas the "Arts and Science"; "Engineering" respondents' opinion differs in the preference order.

Inspiration to Use Digital Resources

The respondents' views on inspiration to use digital resources were obtained using eight variables. The respondents were asked to rank their preferences. The opinions are shown in Table 6.

Table 6 : Inspiration to Use Electronic Information

S. No.	Description	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Rank 8
1	Through Course	38	91	36	79	12	26	39	68
		9.77	23.39	9.25	20.31	3.08	6.68	10.03	17.48
2	Instruction by Library Staff	13	12	51	40	101	81	65	26
		3.34	3.08	13.11	10.28	25.96	20.82	16.71	6.68
3	Information Literacy programme	39	13	26	93	118	51	49	0
		10.03	3.34	6.68	23.91	30.33	13.11	12.6	0
4	Friends	51	68	62	37	13	117	41	0
		13.11	17.48	15.94	9.51	3.34	30.08	10.54	0
5	Self-Learning	38	90	40	39	38	38	93	13
		9.77	23.14	10.28	10.03	9.77	9.77	23.91	3.34
6	Online Instructions	92	25	24	50	81	52	65	0
		23.65	6.43	6.17	12.85	20.82	13.37	16.71	0
7	From Literature	13	77	150	51	26	24	37	11
		3.34	19.79	38.56	13.11	6.68	6.17	9.51	2.83
8	All the above	105	13	0	0	0	0	0	271
		26.99	3.34	0	0	0	0	0	69.67

Percentage given within parenthesis

"All the above" taken up for the study (26.99%) was given highest order i.e. First. The other first-rank preferences were "Online Instructions" (23.65%); "Friends" (13.11%); "Information Literacy Programme" (10.03%) and "Through Courses" (9.77%). Highest preferences in second rank were given for "Through Courses" (23.39%); "Self-Learning" (23.14%); "From Literature" (19.79%) and "Friends" (17.48%). In the case of the third rank, the highest preferences were given for "From Literature" (38.56%); "Friends" (15.94%); "Instruction by Library Staff" (13.11%); "Self-Learning" (10.28%) and "Through Courses" (9.25%).

The cluster analysis has been carried out to identify the preferred source by the respondents' using a dendrogram and the same has been shown in Figure 3.
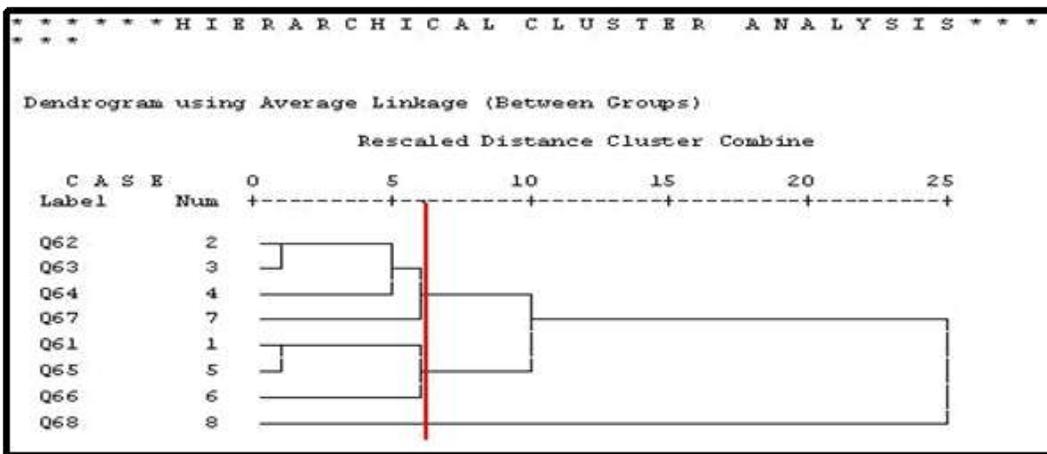
Figure3:Dendrogram for Inspiration to Use Digital Information

At 25% level there exist three clusters. The first cluster comprises four variables such as "Instruction by Library Staff"; "Information Literacy Programme"; "Friends" and "From Literature". The same can be named as a highly preferred inspirer. The second cluster comprises three variables such as "Through Course"; "Self-Learning" and "Online Instructions". The same can be named secondary inspirer. There exists one isolated cluster with an "Others" variable which can be named an unknown inspirer.

Inspiration to use digital information Vs Type of university

Table 7: Inspiration to Use Digital Information Vs. Type of University

Rank	State University	Deemed University	Central University
1	All the Variables	All the Variables	Online Instructions
2	Online Instructions	Online Instructions	Friends
3	Information Literacy Programme	Friends	Through Course; Self-Learning; All the Variables

The state university order of ranking was "All the Variables", "Online Instructions" and "Information Literacy Programme". The "Deemed University" order of first two similar to state university third rank was "Friends". "Central University" first two preferences were "Online Instructions" and "Friends". Third indicated for three variables such as "Through Course", "Self-Learning" and "All the Variables"

Inspiration to use digital information Vs Subject domain of university

Table 8: Inspiration to Use Electronic Information Vs.Subject Domain of University

Rank	Arts and Science	Engineering	Medical	Mutli	Others
1	Online Instructions	Online Instructions	All the Variables	All the Variables	All the Variables
2	All the Variables	All the Variables	Information Literacy Programme	Online Instructions	Online Instructions
3	Friends	Friends; Information Literacy Programme	Online Instructions	Friends	Friends Self -Learning

"Friends", "Information Literacy Programme" and "Self-Learning" were indicated as third preference by "Engineering" and "Other" domain respondents.

Usage of Digital Resources

The respondents' views on the usage of Digital resources, the mean and standard deviation calculated based on responses, and the ranks thus assigned were shown in Table 8

Table 9 : Usage of Electronic Resources

S.No.	Description	Frequently	Sometimes	Till Task Completes	Mean	SD	Rank
1	e-books	326(83.8)	49(12.6)	14(3.6)	1.2	0.481	1
2	Newsgroups / Discussion list	298(76.6)	79(20.3)	12(3.1)	1.26	0.507	2
3	Web Resources	63(16.2)	273(70.2)	53(13.6)	1.97	0.546	6
4	e-Journals	138(35.5)	66(17.0)	185(47.6)	2.12	0.904	7
5	e- Database	141(36.2)	184(47.3)	64(16.5)	1.8	0.699	3
6	e-Thesis	102(26.2)	112(28.8)	175(45.0)	2.19	0.824	8
7	e-directories	126(32.4)	201(51.7)	62(15.9)	1.84	0.676	4
8	Online services	103(26.5)	234(60.2)	52(13.4)	1.87	0.618	5

Percentage given within parenthesis

The higher order of usage of electronic resources was indicated towards "e-books". It is followed by "Newsgroups/ Discussion List", "e-database" and "e-thesis".

Usage of Electronic Resources Vs.Type of University

Table 10 : Usage of Electronic Resources Vs.Type of University

Usage Type	State University	Deemed University	Central University
Frequently	☐ e-books	☐ e-books	☐ e-books
	☐ Newsgroup/discussion list	☐ Newsgroup/discussion list	☐ Newsgroup/discussion list
			☐ e-journal
Sometimes	☐ Web Resources	☐ Web Resources	☐ Web Resources
	☐ e- Database	☐ e- Database	☐ e- Database
	☐ e-directories	☐ e-directories	☐ e-directories
	☐ online services	☐ online services	☐ online services
Till task completes	☐ e-journal	☐ e-journal	☐ e-thesis
	☐ e-thesis	☐ e-thesis	☐

Usage of Electronic Resources Vs. Subject Domain

Table 11: Usage of Electronic Resources

Usage Type		Arts	Engineering	Medical	Multi	Others
Frequently		☐ e-books	☐ e-books	☐ e-books	☐ e-books	☐ e-books
		☐ Newsgroup/ ☐ discussion list	☐ Newsgroup/ discussion list	☐ Newsgroup/ discussion list	☐ Newsgroup/ discussion list	☐ Newsgroup/ discussion list
				☐ e-journal	☐ e-journal	☐ e-journal
Sometimes		☐ Web Resources	☐ Web Resources	☐ Web Resources	☐Web Resources	☐ Web Resources
		☐ e- Database	☐ e- Database	☐ e- Database	☐ e- Database	☐ e-Database
		☐ e-directories	☐ e-directories	☐ e-directories	☐ e-directories	☐ e-directories
		☐ online services	☐ online services	☐ online services	☐ online services	☐ online services
Till task completes		☐ e-journal	☐ e-journal	☐ e-thesis	☐ e-thesis	☐ e-thesis
		☐ e-thesis	☐ e-thesis			

"e-books", "Newsgroup/discussion list" were "Frequently" used by all irrespective of the type and domain of the university whereas "e-journal" was also "Frequently" used by "Medical", "Multi" and "Other" subject domain of the university. "Web Resources", "e- Database", "e-directories" and "Online services" were used sometimes by all domains of universities. "e-journal" and "e-thesis" were used till the task completes by "Arts and Science" and "Engineering" universities whereas"Medical", "Multi" and "Other" subject domain University uses "e-thesis" till task completes.

Conclusion

The collection development has dimensional changes over the period of time and become a challenging task. Technological development has also created a tremendous impact on Collection development. A new model, the RPTTFL model, has certain attributes such as Routine Practices, Tools and Techniques, Functionality, and Limitations. The routine practices attribute comprises three concepts such as "Source Identification", "Inspiration to use" and "Usage of electronic resources". It is inferred from the study that Universities have to continue to subscribe to "e-books", "e-journals", "e-databases", "e-directories" and "e-thesis". Further, it is necessary to make use of "Online Services, "Web Resources" and "Newsgroup/ Discussion lists" effectively. Similarly, it is essential to promote the use of "e-resources". The study suggests giving priority to the factors such as "Collection as Thing, Access and Process"; Developments in Digital Technology; Criteria for Selection; Utilize Online Resources; Challenges towards Collection Development and Updating Knowledge.

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