

SDI AS A CORRELATE OF FACULTY USE OF LIBRARY IN FEDERAL UNIVERSITIES OF TECHNOLOGY IN NIGERIA

DR. FELICIA E. ETIM

**Department of Educational Technology and Library Science
University Of Uyo, Uyo, Nigeria**

ABSTRACT

This paper investigates quality SDI service provided by the Federal Universities of technology libraries in Nigeria to lecturers. It also sought to establish if there is any relationship between SDI services and lecturers' use of the libraries. Data analysis indicates very low SDI services to lectures which gives rise to underutilization of the library resources, since the tested null hypothesis actually establishes significant relationship between SDI services and lecturers' utilization of libraries.

INTRODUCTION

In Nigeria, Federal Universities of technology were established in 1980 with the mandate to meet the urgent need for skilled, innovative and technologically oriented manpower, (Federal Universities of Technology Owerri 2000). This mandate is reemphasized in Nigeria's Policy on Education (1989) in Section 6A items 50-55. The basic Universal functions of Universities are acknowledged to be the conservation of knowledge, promotion and dissemination of knowledge through research, provision of intellectual leadership, development of human resources and the promotion of social and economic development. Undoubtedly, no single University can satisfactorily perform this function without a library. Federal Universities of Technology libraries in Nigeria were established with the goals of providing information sources and services for utilization in teaching, research and public services. Orr (1968) categorized library services as :-

- (a) Document service (providing specific documents and materials on request)
- (b) Citation service (information retrieval, seeking documents and other materials on specific topics)
- (c) Answer service (providing specific answers, information, or data in response to user requests).
- (d) Workspace service (providing a variety of user accommodation and associated hardware).
- (e) Adjust services (of editing, archiving, translation service and exhibitions).

All of these are essential to the University community and should be available from the library. Melum (1971), Ifidon (1988), Alemna (1990) and zaki (1991) have

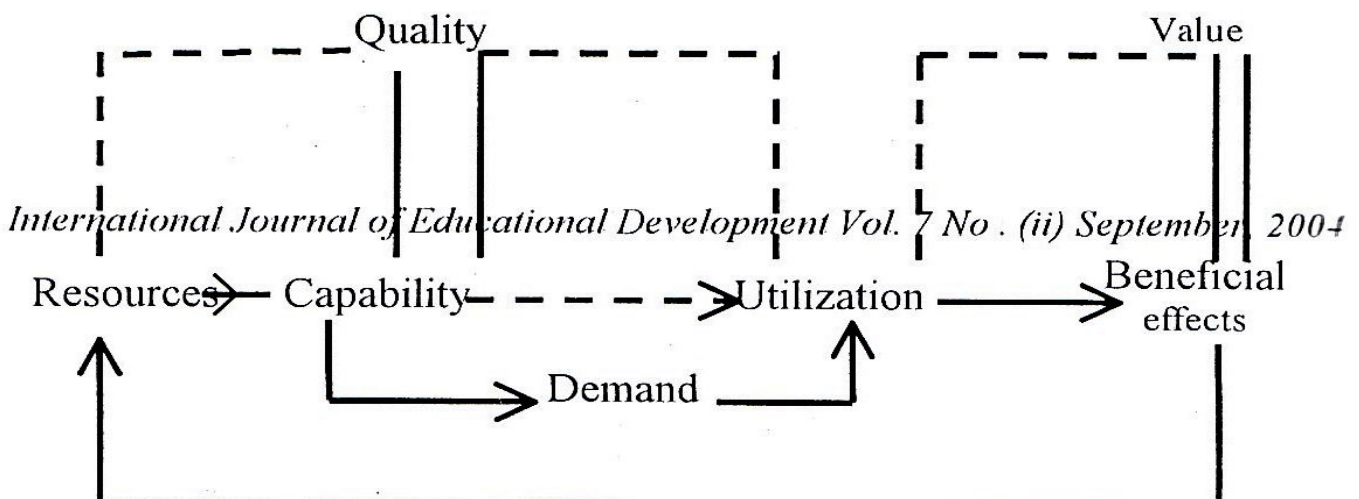
noted the inadequacy of these information services in many African Universities. Neelamephan (1985) observed that the scenario in many libraries in developing countries is underutilization of information sources and services. This is partly due to inadequacy in relation to user needs, lack of poor information marketing and user education. Authors like Flynn (1979), Alemna 1990, Aguolu (1983), Boakye (1999) and Rosch (2003), have conducted studies and examined the relationship between independent variables of size of collection, bibliographic services, users' characteristics, user education and journal collection against users' library utilization. None of these studies provided empirical evidence on the relative contribution of information services as an independent variable on users' utilization. This study therefore assesses the extent of quality SDI services provided by Universities of Technology libraries and tries to determine the relationship between quality Selective Dissemination of Information (SDI) and Faculty utilization of Libraries. Specifically, the study tests the null hypothesis that "*There is no significant relationship between quality of SDI Service and Lecturers Utilization of Libraries in Federal Universities of Technology in Nigeria*".

THEORETICAL FRAMEWORK

The investigation is based on the Discrepancy Evaluation model of Provus (1971) and the Evaluation model of Orr's (1973). Provus (1971) proposed that: "Evaluation is primarily a comparison or program performance with expected or designed programmes ... a comparison of client performance with expected client outcomes."

This theory relates to this study on the basis that lecturers' opinion on the quality of SDI services rendered is expected to produce an outcome of utilization. It conceptualizes quality SDI services and optimal library utilization items of the differences between a desired state and an existing state to bring out the missing gap that can be used to reconcile the performance. Orr (1973) presented a very general diagram of evaluation in Figure 1. Orr's propositions predict that the provision of resources to an information system results in its having a capability to provide various services; the utilization of these services takes place when demands are made on the system. In its having a capability to provide various services; the utilization of these services takes place when demands are made on the system; and the recipient may derive benefit from this use

FIGURE 2.1 ORR'S MODEL OF EVALUATION



The arrows in Figure 1 propose that :-

1. Other things being equal, the capability of a system will tend to increase as resources devoted to it increase, but not necessarily proportionately.
2. Other things being equal, the demand on a system will tend to increase as its capability increases, but not necessarily proportionately;
3. Other things being equal, the utilization of a system will tend to increase as the demand on it increases, but not necessarily proportionately;
4. Other things being equal, the utilization of a system will tend to increase as its capability increases, but not necessarily proportionately;
5. Other things being equal, the beneficial effects of a system will tend to increase as its utilization increases, but not necessarily proportionately;
6. Other things being equal, the resources available to a system will tend to increase as its beneficial effects increase, but not necessarily proportionately.

This paper is to examine the relationship between SDI services as independent variable and lecturers' utilization of libraries as dependent variable.

METHODOLOGY

The five Federal Universities of Technology in Nigeria – Abubakar Tafewa Balewa University Bauchi (ATBU); Federal University of technology Akure (FUTA); Federal University of Technology Owerri (FUTO) and Federal University of Technology Yola (FUTY) were used as study area for the research. Population composed of all lecturers (Assistant lecturers to Professors) in these Universities. There are 1,257 lecturers during the academic session 2003/2004.

A simple random sampling technique was used to select the 60% of the lecturers that correspond to the population for each University as shown in Table I. The name of all the lecturers from the staff list in each University were subjected to a blind selection until the required number of subjects were obtained. The instrument for data collection was titled "Questionnaire on Information services and lecturers' library utilization "(QISLLU). The instrument was administered with the assistance of professional colleagues in University libraries. Distribution of questionnaires took twelve weeks and a response rate of 99% (744) was recorded.

Table 1: federal universities of technology population and sample size

	NAME OF UNIVERSITY		DATE ESTABLISHED	POPULATES OF LECTURES.
	Abukbaker Tafewa Balewa		1980	260
	Federal University Technology Akure (FUTA)		1980	288
	Federal University of Technology Minna (FUTO)		1980	270
	Federal University of Technology Owerri (FUTO)		1980	325
	Federal University of Technology Yola (FUTY)		1980	204
	Total			1257

N/B The federal universities of Technology were established in 1980 although they became functional at different dates.

Source: Emovon E. U. (1989).

DISCUSSION OF FINDINGS

1. BACKGROUND OF RESPONDENTS

Table 2,3 and 4 exposes the rank and work experience of lecturers under study. The rank of lecturer I were the highest number 232 (31.1%) followed by Senior Lecturers with 120 (16.5%). The third was Lecturer II with 114 (15.5%). Professors were the list with 82 (11%), Associate professors 106 (14.2%) while Assistant Lecturers were 90 (12%). This distribution was truly representative of faculty rank distributions in Nigeria Universities with majority of faculty in the middle rank.

TABLE 2: DISTRIBUTION OF LECTURERS BY AGE

AGE	TOTAL NUMBER	PERCENTAGE (%)
20 – 30 years	32	4.3
31 – 39 years	286	38.4
40 – 49 years	314	42.2
50 – 59 years	73	9.8
60 and above	39	5.3
Total	744	100

Five age brackets were identified and used for analysis. As shown by the results in Table 2, the highest number of Lecturers fell within the age bracket 40 – 49 years, which were 314 (42.2%). Lecturers within the age bracket of 31 – 39 years follow this, which were 286 (38.4%). Those within the age bracket of 50 – 59 came third; totaling 73(9.8%) while, age brackets 60 and above and 20-30 years were 39(5.3%) and 32 (4.3%) respectively.

TABLE 3: DISTRIBUTION OF LECTURERS BY RANKING

RANK	TOTAL NUMBER	PERCENTAGE (%)
Professors	82	11
Associate Prof.	106	14.2
Senior Lecturers	120	16.1
Lecturer I	232	31.1
Lecturer II	114	15.3
Assistant Lecturer	90	12
Total	744	100

Six ranks were used for analysis for this study as shown in Table 3 The results in the Table shows the rank of Lecturer I with 232 (31.1%) was the highest followed by senior Lecturers with 120 (16.1%) as second, while the third position was Lecturer II with 114 (15.3%).

TABLE 4: DISTRIBUTION OF LECTURERS BY WORKING EXPERIENCE

EXPERIENCE	FREQUENCY	PERCENTAGE %
Above 20 years	160	21.5
16 – 20 years	215	28.9
11 – 15 years	173	23.3
6 – 10 years	113	15.2
1 – 5 years	83	11.
Total	744	100

Five years bracket of working experience of the Lecturers were categorized and examined above in Table 4. The most experienced lecturers constitute 21.5% of the entire population. In other words, there were only 160 of them out of seven hundred and forty four (744) who have lectured above twenty years.

Close to it is the range of (16 – 21 years). They are hundred and fifteen and constitute 28.9% of the entire Lecturers. Those within the range of 11 – 15 years working experience are 173 representing 23.3%. The Lecturers with 6 – 10 years working experience are 113 in number and these represent 15.2%. Finally, the least experienced 5 years above of the Lecturers constitute only 83 in number representing 11% out of the total lecturers sampled.

On the whole, however, majority of the Lecturers in Federal Universities of Technology is highly experienced in teaching and research activities.

TABLE 5: DISTRIBUTION OF LECTURERS BY EDUCATIONAL QUALIFICATIONS

HIGHEST EDUCATIONAL QUALIFICATION	FREQUENCY	PERCENTAGE (%)
First Degree (B.A/B.Sc./HND only)	0	0
Second Degree and above (M.A/M.Sc. etc.)	445	59.8
Third Degree (Ph.D)	299	40.2
Total	744	100

Third degree constitutes a minority of 299 (40.2%) of the Lecturers' qualifications. The result reveals that majority of the lecturers are yet to obtain their third degree. Three educational qualifications were identified and used for this

study. The results obtained are as shown in Table 5 below. Where there were 445 (59.8%) with second degrees. These constitute the majority of the Lecturers.

TABLE 6 : LECTURERS' RESPONSES TO SDI SERVICE QUALITY IN EACH LIBRARY OF FUT IN NIGERIA

Information service variable	Names of FUT in Nigeria	Sampled population	Lecturers' Responses to quality SDI by FUT libraries in Nigeria				Total
			SA	A	D	SD	
			Frequency	Frequency	Frequency	Frequency	
SDI service quality	ATBU	151	45	70	20	16	151
	FUTA	168	60	68	20	20	168
	FUTM	162	52	71	16	23	162
	FUTO	141	53	54	28	6	141
	FUTY	122	47	46	5	24	122
Total		744	257	309	89	89	744

Table 6 Present Lecturers' responses on the strength of SDI service quality as follows:

At ATBU, out of 151 respondents, 45 and 70 strongly agreed and agreed respectively; that, the strength of the SDI service quality is low. At the same time, 20 and 16 respondents disagreed and strongly disagreed respectively; that, the strength of SDI service quality is high.

At FUTA, out of 168 respondents, 60 and 68 strongly agreed and agreed respectively; that the strength of SDI service quality is low. At the same time, 20 respondents both for disagreed and strongly disagreed that, the strength of SDI service quality is high.

In. FUTM, out of 162 respondents, 52 and 71 strongly agreed and agreed respectively; that, the strength of SDI service quality is high. At the same time, 16 and 23 respondents disagreed and strongly disagreed respectively; that, the strength of the SDI service quality is high.

At FUTO, out of 141 respondents, 53 and 54 strongly disagreed and agreed respectively; that, the strength of SDI service quality is low. At the same time, 28 and 6 respondents disagreed and strongly disagreed that the strength of SDI service quality is high.

Finally, at FUTY, out of 122 respondents, 47 and 46 strongly agreed and agreed respectively; that, the strength of SDI service quality is high.

In conclusion, the above analysis revealed; that, there is no peculiar difference in the provision of quality SDI service among the five libraries of FUT in Nigeria. Because, the majority of the respondents rated the strength of information service variable of SDI service quality to be low in all the five libraries of FUT in Nigeria, without any exception in any of the libraries.

TABLE 7. LECTURERS' RESPONSES ON SELECTIVE DISSEMINATION OF INFORMATION (SDI) SERVICE QUALITY IN LIBRARIES OF FUT IN NIGERIA

S/N	Selective Dis-semination of Information (SDI) service constructs	N	Responses on quality of Selective Dissemination of Information (SDI) service											
			Low Strength					High Strength						
			(SA)		(A)		Agreement's total score and percentage	(D)		(SD)		Disagreement's total score and percentage		
Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%			
1.	Photocopying of journals content pages for lecturers current research	744	223	30	373	50.1	596	(80.1%)	74	9.9	74	9.9	148	(19.9%)
2.	Production of weekly or bi-weekly bulletins of new publications		446	59.9	149	20	595	(80%)	149	20	0	0	149	(20%)
3.	Maintenance of interest profile on Lecturers' ongoing research		229	40.1	297	39.9	596	(20%)	74	9.9	74	9.9	148	(19.9%)
4.	Notification of users of content pages of new journals.		223	30	373	50.1	596	(80.1%)	148	19.9	0	0	148	(19.9%)
5.	Retrieving electronic journals (from database) for lecturers research areas.		222	29.8	373	50.1	595	(79.9%)	75	10.1	74	9.9	149	(20%)

The calculated r-value was 0.348. This value was tested for significance by comparing it with the critical r-value at 0.05 significant level with 742 degree of freedom. 130

The calculated r-value of 0.348 was greater than the critical r-value of (0.088). Since, the calculated r – value of 0.348 (is greater than the critical value (0.088), then, the tested null hypothesis which predicted that there is no significant relationship between selective dissemination of information service quality and Lecturers' utilization of libraries in FUT in Nigeria is rejected. Therefore, quality of SDI service (x) has significant relationship with Lecturers' utilization of libraries (y) in Federal Universities of Technology in Nigeria. (i.e. Utilization has coefficient of determination (r^2) of 12.11% dependent on SDI service). This means 12.11 percent of the variation in SDI service quality is statistically accounting for by the relationship between quality SDI service and Lecturers' utilization of libraries.

SELECTIVE DISSEMINATION OF INFORMATION (SDI) SERVICE AND LECTURERS' UTILIZATION OF LIBRARIES IN FUT IN NIGERIA

This study attempted to determine the relationship between Selective Dissemination of information (SDI) service quality and Lecturers' utilization of libraries in FUT in Nigeria. The null hypothesis of the study predicting that there is no significant relationship between SDI service quality and Lecturers' utilization of libraries in FUT in Nigeria.

The finding of this study shows that there is significant relationship as the direction of the correlation is positively related with an obtained Pearson $r = 0.348$. Also, the analysis of the research question revealed that majority of 596 (80%) respondents agreed that the strength of five constructs of SDI service quality of libraries FUT in Nigeria is low as indicated in table 8.

These results are in substantial agreement with those of Rosh (2003) and Rowley (1998). Their ideas of SDI service quality is by supplying traditional full services through tailored individual or group information profiles. Thereby, matching the detailed subject descriptions of the document and when a match occurs, then, the information is notified to the user in either abstract or index format. In their opinions, SDI service can promote users research and other day-to-day activities. And, it allows users to sift through a large number of documents before using. The value is to save the users time and the avoidance of information overflow through a regular supply of current information for scientific research or professional practice. These SDI service users are influenced to use the library frequently. But, when the practice is not adequately provided, then, users may not be motivated in using a library. This may be attributed to the underutilization of these FUT libraries in Nigeria under study; because, the strength of the SDI service is found to be low.

The finding of this study agree with Orr's (1968) preposition which state that: Other things being equal, the demand on a system will tend to increase as its capability increases, but not necessary proportionately. This proposition predict that when quality

As shown in table 7, photocopying of journals content pages for Lecturers' current research, a construct of SDI service quality scored 223 (30%) and 373 (50.1%) with a total score of 596 (80.1%) who agreed that, the strength is low. Meanwhile, 74 (9.9%) and 74 (9.9%) with total of 148 (19.9%) who disagreed that, the strength is high. This reveals that photocopying of journals content pages for Lecturers' current research is rated low, as indicated by a majority of 596 (80%) respondents.

Production of weekly bulletins of new publications, a construct of SDI service quality scored 446 (59.9%) and 149 (20%) with a total score of 595 (80%) who agreed that, the strength is high. Meanwhile, 149 (20%) disagreed that, the strength is high. This result reveals that production of weekly bulletins of new publications is rated low as indicated by a majority of 595 (80%) respondents.

Maintenance of interest profile on Lecturers' on-going research, a construct of SDI service quality scored 299 (40%) and 297 (39.9%), with a total score of 596 (80%) who agreed that, the strength is low. Meanwhile, 74 (9.9%) and 74 (9.9%) with a total score of 148 (19.9%) who disagreed that the strength is high. This result therefore reveals that maintenance of interest profile on Lecturers' on-going research is rated low as indicated by a majority of 596 (80%) respondents.

Notification of Lecturers' with content pages of new journals, a construct of SDI service quality scored 223 (30%) and 373 (50.1%) with a total score of 596 (80.1%) disagreed that the strength is high. Meanwhile, 148 (19.9%) who disagreed that the strength is high. The result reveals that notification of Lecturers with content pages of new journals is rated low as indicated by a majority of 596 (80.1%) respondents.

Finally, retrieving electronic journals article in Lecturers' research areas, a construct of SDI service quality scored 222 (29.8%) and 373 (50.1%) with a total score of 595 (79.9%) who agreed that, the strength is low. Meanwhile, 75 (10.1%) and 74 (9.9%) with a total score of 149 (20%) disagreed that the strength is high. The result thus reveals that retrieving electronic journals' article in Lecturers' research areas is rated low; as indicated by a majority of 595 (80%) respondents.

TABLE 8 PPMC ANALYSIS OF THE RELATIONSHIP BETWEEN SDI SERVICE QUALITY (X) AND LECTURERS' UTILIZATION OF LIBRARIES (Y) IN FUT IN NIGERIA.

N	ΣX	ΣY	ΣX^2	ΣY^2	ΣXY	r-value	P	df	Decision
744	6768	10341	62972	156571	95546	0.348	0.05	742	S

Critical r – value 0.088

SDI service is provided it will in turn increase the stimulation of Lecturers which will create the demand for these libraries services and resources thereafter promote the use of their university libraries.

The implication of this study's finding to determine if there is a relationship between selective dissemination of information service and Lecturers utilization of libraries in FUT libraries in Nigeria. It lends to the assumption that a well informed Lecturer on the resources and services of the FUT libraries may be stimulated to utilize his university library for teaching, research and community service. Consequently, this observation of the Lecturers could be attributed to the low strength, hence, the underutilization of these libraries.

Therefore, there is the need to provide high quality service to enhance Lecturers stimulation to the utilization of FUT libraries in Nigeria for teaching, research and public service towards attaining the mandate of FUT in Nigeria.

The finding of this study can also be inferred to other previous studies such as: Danilowicz (1982), Tell (1970), Tagliacozzo (1973). These studies found that SDI subscribers who marked references to documents, which they want, were either copied on paper or loaned out. And that, subscribers easily had access to sources of documents on their specific subject, which, met their research purposes and professional practice. But these studies suggested that information system needs and practice of gatekeepers (user) need to be stimulated in order to use libraries. But contrary to this practice, it will then result to users' library underutilization.

The implication of this study's finding on the relationship between SDI service quality and Lecturers' utilization of libraries in FUT in Nigeria. It lends to the assumption that the more the libraries in FUT in Nigeria implement the principle of providing information service (through SDI) to all potential Lecturers, the more frequent their libraries may be used. This assumption can be applied to this study which found that the strength of the quality of SDI service is low. This is as a result of the failure of these libraries to implement the practice of information service quality thereby resulting to underutilization of these libraries. It is therefore suggested that the Libraries in FUT in Nigeria should implement the principle of providing quality SDI service that will stimulate their Lecturer's utilization of these libraries for their academic activities.

REFERENCES

- Aguolu, C.C. 1983) The quality and availability of learning material in Nigeria University. *Nigeria Library and Information Science Review (1)*, 1-17
- Alemna, A.A. (1990) Users education in University academic libraries Ghana. *Education Libraries Journal* 33 (1), 40-47.
- Boakye, Joseph (1990). Users awareness and use of science and technology collections at the University of Science and Technology (UST) libraries. *Journal of Librarianship and Information Science* 31 (94), 204 – 211.
- Federal University of Technology Owerri 9200) *The University Calendar 1985-2000*. Owerri: FUTO P18.
- Melum National Universities Commission (NUC) 1996). *Draft Manual on University* Yola: paradete publisher, 42-43.
- Neelamephan, A. (1985). User Orientation in library and information studies curriculum: Some aspects with special reference to developing countries. *African Journal of Library, Archives and Information Science* 10 (1), 53-65
- Orr, R. H. et Al (1968) development of Methodologies tool for planning and managing library sciences. *Bulletin of the medical library association*. 56 (4), 380-403.
- Orr, R. H. (1973): Measuring the goodness of library services: A general framework for considering quantitative measures. *Journal of Documentation* 29 (3), 515-32
- Provus, Malcolm M. (1971). *Discrepancy evaluation*. California: Berkeley 102p.
- Rosch Hermann, (2003). Dissemination of Information. In: J. Feather and Paul Surges (eds) *International encyclopedia of information and library science (Eds)* London: Routledge p. 141-142.
- Zaki, N. (1991). *Users education in Nigeria Universities: The need for new approaches* *International library movement* 13 (1), 27-43.
- Melum, V. V. (1971). Library orientation in the college and university. *Wilson Library Bulletin* 46 (1), 29 – 38.
- Ifidon, S. E. (1988). *Measuring use and none – use of bibliographic resources in libraries*. (Paper Presented at the Annual Seminar of the Academic Research Libraries Section of the Nigerian Library Association University of Jos. 31 Oct – Nov.), p. 38.