
“APPLICATION OF TOTAL QUALITY MANAGEMENT IN UNIVERSITY LIBRARIES WITH RESPECT TO USERS”

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Abstract

This paper discusses about the application of TQM with respect to users in a University Library. The Total Quality Management is a management approach centered on quality, based on the participation of an organization and aiming at long term success. This is achieved through customer satisfaction and benefits of all members of the organization and society. To analyse the applications of TQM in current study Rajasthan University and MNIT Jaipur Library users (N=200) were analyzed for hypothesis H₁: TQM is implemented effectively in libraries of State Universities of Rajasthan and H₂: Users are satisfied with the quality of collection and services of libraries of State Universities of Rajasthan was accepted by various statistical analytical tests and overall it can be stated that The requirements and expectations of the user's are changing day by day and their requirements are very high but TQM if implemented in library tries to make academic library of University more beneficial for user as studied in case of Rajasthan university and MNIT Jaipur. Thus it is an approach adopted by Libraries and is anxious to reduce the operating expenses by following this TQM principle.

KEYWORDS :

TQM, Users, Library, Organization, Quality, Implementation.

1.INTRODUCTION:

Libraries have always been committed to provide a high quality of services to its users. In the past, consuming more resources, buying more books, and moving to large premises are considered as improving quality. But that approach is not valid today. One of the good solutions to improve quality is to provide right information to a right user at right time. This requires a through change in the approach – an approach based on user requirements and user satisfaction. It is believed that this can be achieved by implementing TQM. Thus, TQM approach is slowly getting popular in today's libraries.

TQM is the art of managing the whole to achieve excellence. The golden rule is a simple but effective way to explain it. ***TQM is defined as both a philosophy and a set of guiding principles that represent the foundations of a continuously improving organization.*** It is the application of qualitative methods and human resources to improve all the processes within an organization and exceed customer needs now and in the future. TQM integrates fundamental management techniques, existing improvements, and technical tools under a disciplined approach (*Talukder and Ghosh, 2004*).

TQM PRINCIPLES

TQM is the application of a number of activities with perfect synergy. The various important elements of TQM are:

Customer-driven quality;

Top management leadership and commitment;
 Continuous improvement;
 Fast response;
 Actions based on facts;
 Employee participation; and
 A TQM culture (Crosby, 1979; Deming, 1986; Juran and Gryna, 1995).

Relationship between library science and TQM

Quality, with regard to the products of industries, depends on raw materials, vendor components, and different skills of performance of employees and production processes, and equipment that shows different degrees of performance. Similarly, quality with regard to library and information science or with respect to the processing of information services in the library depends on:

The collection of documents and their technical processing by applying certain techniques and methods;
 The skills of employees;
 Equipment and processing;
 The span of time of service to be rendered; and
 The attributes of services which are to be rendered.

From the above, it is clear that while quality in respect of industries fulfills the ultimate goal of user satisfaction, the same may be adopted in library and information centers.

Quality in library services is most effective in user-oriented services (Talukder and Ghosh, 2004). Talukder and Ghosh (2004) also made a comparison between TQM and library sciences in respect of different attributes as summarized in Table 1

Table 1 Relationships Between Library Science And TQM

Attribute	TQM	Library Sciences
Definition	Customer oriented	User oriented
Priorities	First among equals of service and cost.	User and Service
Decisions	Long Term	Long Term
Emphasis	Prevention	Prevention like anticipation of demand
Errors	System	System/techniques
Responsibility	Everyone	Library personnel

Problem	Solving Teams	Professionals’ teams
Procurement	Life cycle costs, partnership	User centric (cost is implicit)
Manager’s Role	Delegate, Coach, Facilitate	Delegate Assistance Facilitate and mentor

The concept of total quality management (TQM) is now a management technique used in most disciplines and libraries and information centers are no exception. Its application in service sectors like library and information services (LISs) started in the late 1980s and is an American response aiming at customer satisfaction by way of meeting the requirements and expectations of customers. This concept has become more relevant in the current technological era, especially due to the emergence of application of information technology in libraries and changes in information consciousness among users (*Raina, 1995*).

Pillars Of TQM

Creech (1994) listed five pillars of TQM that provide a strong foundation for TQM managed organizations. This can become the focus of improvement in technical and vocational education for their transformation.

The five pillars of TQM are: 1) Product (Service) 2) Process 3) Organization 4) Leadership 5) Commitment.

Keeping the above facts in view, present research study was aimed to “*Application of Total Quality Management in University Libraries with Respect to Users*” is designed to accomplish the following objectives.

To study the awareness level of users about TQM in libraries of state in Rajasthan

To review the quality assurance system in providing Quality Information services to the users of state in Rajasthan.

To study the infrastructural facilities available for implementing TQM in libraries of state in Rajasthan.

2. RESEARCH METHODOLOGY:-

Hypothesis:-

H₁: TQM is implemented effectively in libraries of State Universities of Rajasthan

H₂: Users are satisfied with the quality of collection and services of libraries of State Universities of Rajasthan

The research methodology used for the present study is descriptive research which includes questionnaires and fact-finding enquiries of different kinds of users of State Library of Rajasthan University, and MNIT (Malviya National Institute of Technoogy) Jaipur. Total No of Respondents was 100 each of Rajasthan University and MNIT Jaipur (N = 200). The questions are closed ended and attached as Annexure to research paper.

3. RESULTS & ANALYSIS:-

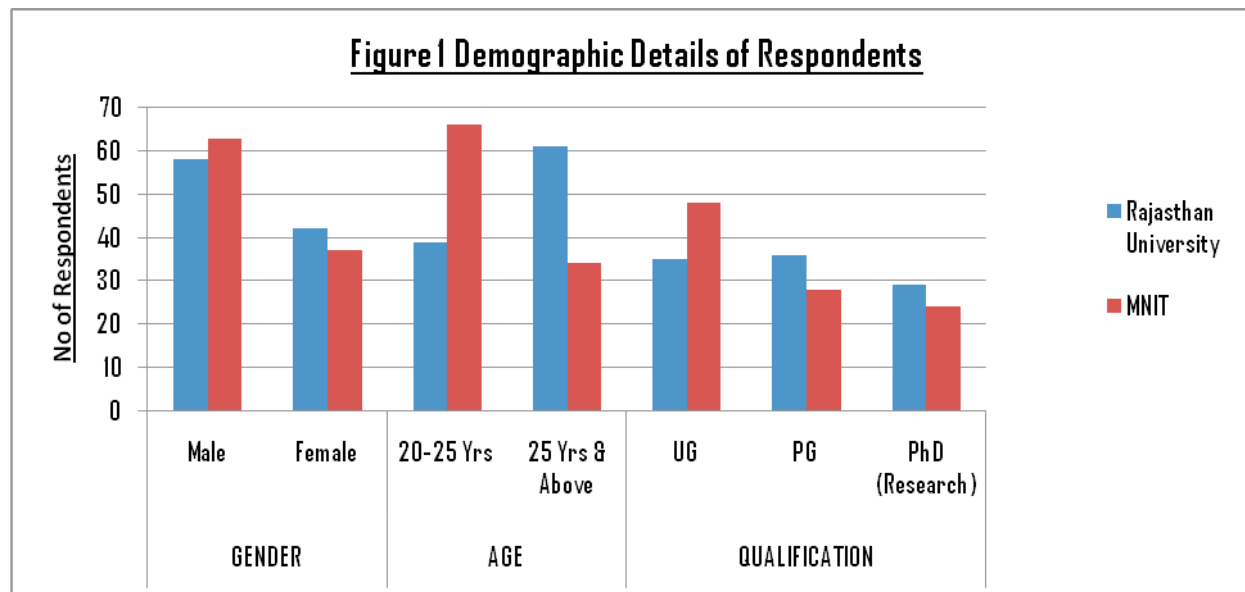
3.1 Demographic Details of Respondents: -

To make the study more relevant and enhance the reliability both gender of respondents users of state Library were analyzed in the current study. The demographic details of respondents are shown in Table 2 below:-

Table 2 Demographic Details of Respondents

DEMOGRAPHIC PARAMETER	GENDER		AGE		QUALIFICATION (Course Pursuing in University)		
	Male	Female	20-25 Yrs	25 Yrs & Above	UG	PG	PhD (Research)
Rajasthan University	58	42	39	61	35	36	29
MNIT	63	37	66	34	48	28	24
TOTAL	121	79	105	95	83	64	53
TOTAL (N)	200		200		200		

Figure 1. Demographic Details of Respondents



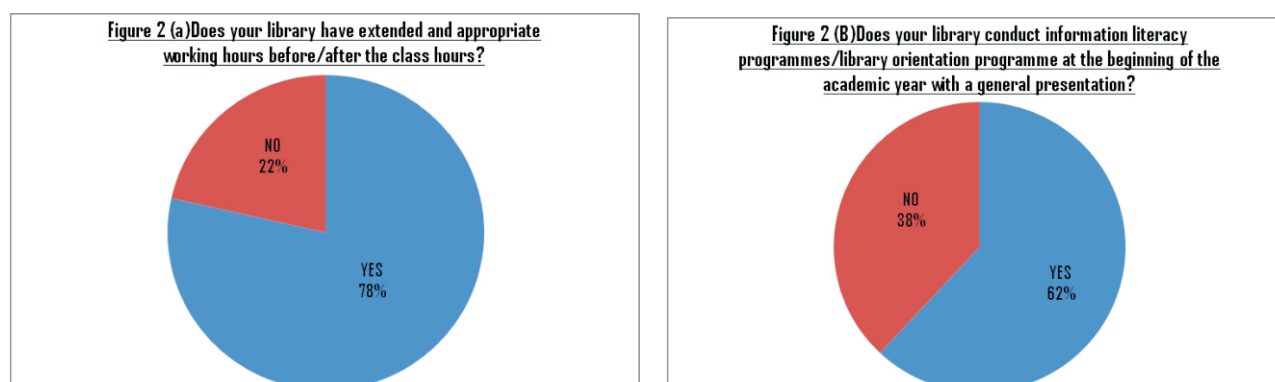
3.2 Analysis of Application of Total Quality Management in University Libraries with Respect to Users:-

To prove the hypothesis H₁: TQM is implemented effectively in libraries of State Universities various questions were analyzed and discussed below

Table 3 Respondents opinion for Q1 and Q2

S.No	QUESTION	RESPONDENTS OPINION	
		YES	NO
Q1	Does your library have extended and appropriate working hours before/after the class hours?	157	43
Q2	Does your library conduct information literacy programmes/library orientation programme at the beginning of the academic year with a general presentation?	124	76

Figure 2 Respondents opinion for Q1 and Q2



Interpretation- It is observed from above opinion of users of Library that 78% respondents agree with the working hours of library and similarly 62% agree with the library orientation programme adopted by their University library.

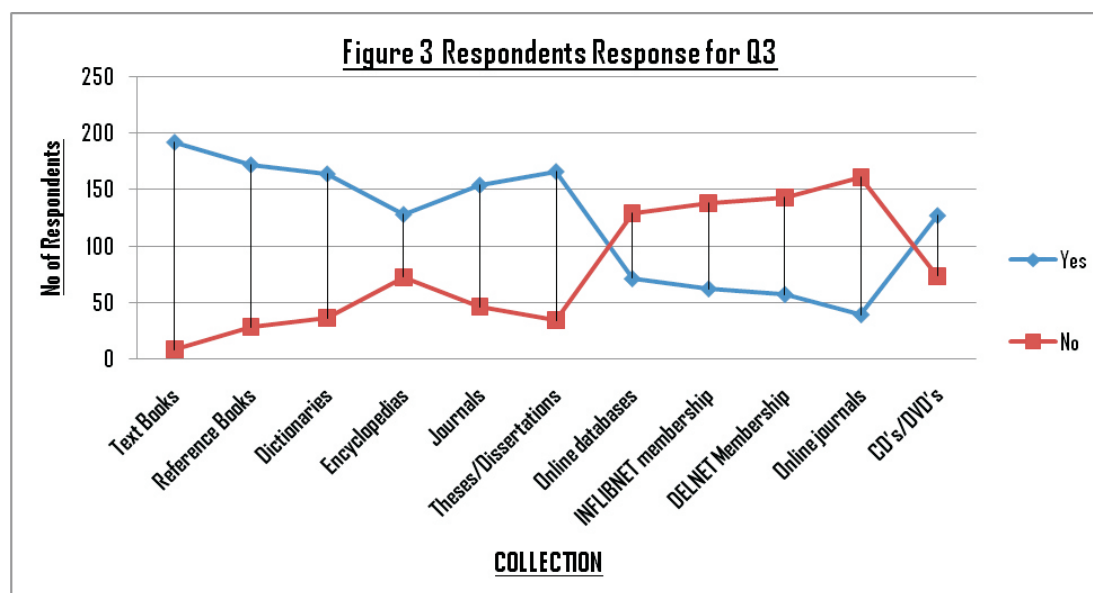
Statistical Analysis: On table 3 above Chi Square test was applied and it was found that Chi Square Value was 12.249 and P value was 0.0005 at 95% Confidence Interval and considered significant. The results state that the sample respondent's opinion accepts the hypothesis H1.

Table 4 Respondents opinion for Q3

Q3 Does your library have adequate resources and does it meet your requirements?

S.No.	COLLECTION	RESPONDENTS OPINION				
		Meet requirements				
		Yes	No	Always	Sometimes	Never
1	Text Books	192	08	118	64	10
2	Reference Books	172	28	154	15	03
3	Dictionaries	164	36	51	101	12
4	Encyclopedias	128	72	84	40	04
5	Journals	154	46	53	90	11
6	Theses/Dissertations	166	34	42	77	47
7	Online databases	71	129	24	27	20
8	INFLIBNET membership	62	138	12	32	18
9	DELNET Membership	57	143	16	12	29
10	Online journals	39	161	14	13	12
11	CD's/DVD's	127	73	84	39	04

Figure 3 Respondents response for Q3



Interpretation – When analyzed about the resources available in state university library it was observed that 192 respondents were satisfied with the no of Text Books available and 172 were satisfied with the reference books in their library. Similarly around more than 150 respondents were satisfied with the availability of Journals and Dictionaries.

But on the contrary respondent's student users of library were less satisfied with the requirements of online databases, INFLIBNET and DELNET facilities in University Library.

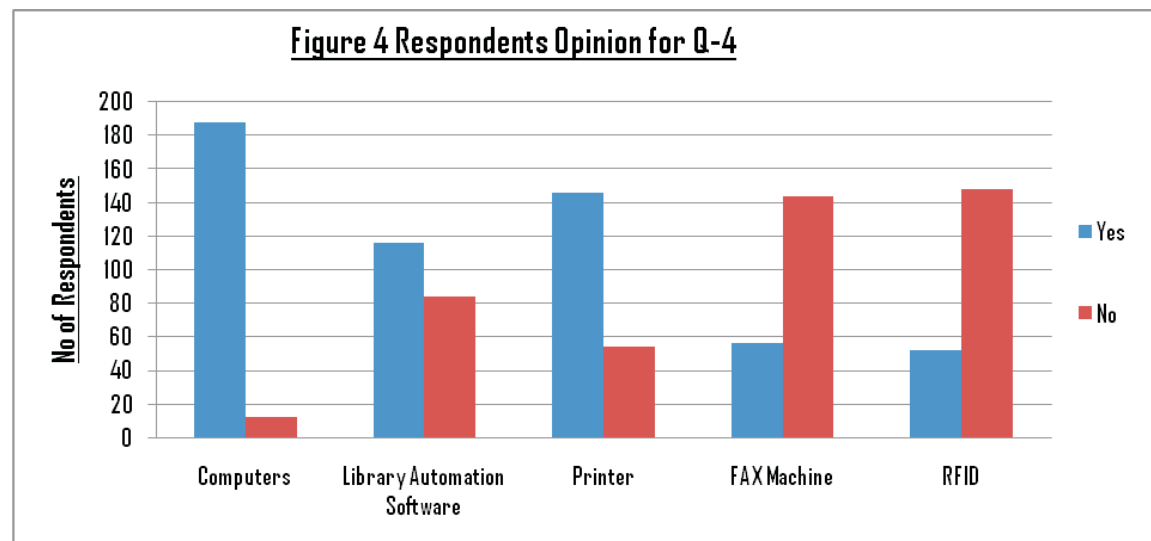
Statistical Analysis:-At 10 degree of Freedom Chi square test (Goodness of Fit) was conducted and results the Chi Square value to 617.28 and P value is < 0.0001 which makes it significant. The results state that the sample respondent's opinion accepts the hypothesis H1.

Table 5 Respondents opinion for Q4

Q4 Please mention whether your library possesses the following hardware / software's / equipments?

S. No.	ITEMS	RESPONDENTS OPINION	
		Yes	No
1	Computers	188	12
2	Library Automation Software	116	84
3	Printer	146	54
4	FAX Machine	56	144
5	RFID	52	148
6	Photocopier	185	15

Figure 4 Respondents opinion for Q4



Interpretation- To analyze the minimum software requirements as per ISO for implementing TQM in Library various hardware/ software requirements was analyzed in state university library. It was obtained that 188 out of 200 respondents were agree and satisfied with Computer facilities.116 with Library Automation Software , 146 are satisfied with printer facilities and similarly 185 i.e92.5% were satisfied with photocopier facilities in university library, the findings make the results significant.

But on the other hand only 25% respondents were satisfied with FAX and RFID facilities in University library. i.e to implement TQM more effectively in Library theses facilities should be enhanced for users.

Statistical Analysis:-At 5 degree of Freedom Chi square test (Goodness of Fit) was conducted and results the Chi Square value to 385.35 and P value is < 0.0001 which makes it significant. The results state that the sample respondent's opinion accepts the hypothesis H₁.

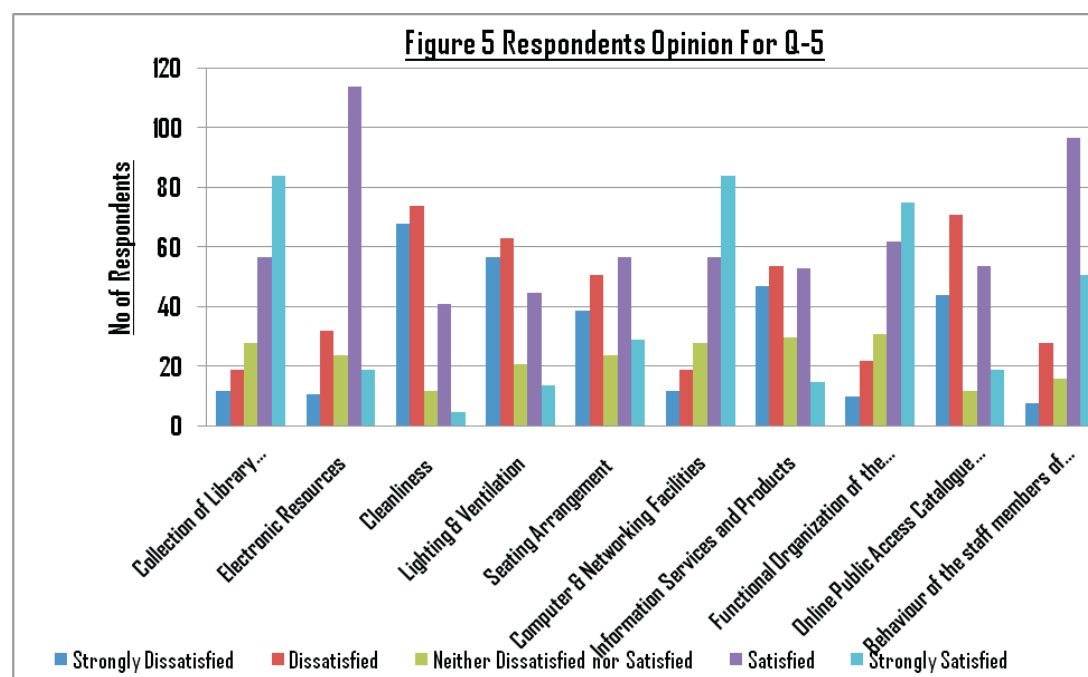
To prove the hypothesis H₂: Users are satisfied with the quality of collection and services of libraries of State Universities various questions were analyzed and discussed below

Table 6 Respondents opinion for Q5
Q5 Are you satisfied with the functioning of and resources available in the library?

S.No.	Library Services & Resources	Strongly Dissatisfied	Dissatisfied	Neither Dissatisfied nor Satisfied	Satisfied	Strongly Satisfied
	Statistical Scale- Likert's Scale rank (1 is Highest and 5 is lowest)	5	4	3	2	1
1.	Collection of Library (Books, Journals etc.)	12	19	28	57	84
2.	Electronic Resources	11	32	24	114	19
3.	Cleanliness	68	74	12	41	05
4.	Lighting & Ventilation	57	63	21	45	14
5.	Seating Arrangement	39	51	24	57	29

6	Computer & Networking Facilities	12	19	28	57	84
7	Information Services and Products	47	54	30	53	15
8	Functional Organization of the library	10	22	31	62	75
9	Online Public Access Catalogue System (OPAC) for identification of books	44	71	12	54	19
10	Behaviour of the staff members of the library	08	28	16	97	51

Graph 5 Respondents opinion for Q5



Statistical Analysis:-

One way ANOVA on Likert's Scale data

On the above table Likert scale rank was analyzed and on Likert's scale data, One way Analysis was variance was calculated to find the significance level. The P value is 0.0002, considered extremely significant. The significance level of P indicates the acceptance of Hypothesis H2. Thus overall it can be said that Users are satisfied with the quality of collection and services of libraries of State Universities in Rajsthan particularly in Rajasthan university and MNIT, Jaipur.

4. CONCLUSION:-

Many libraries have embarked on plans for implementing quality-related philosophies such as TQM. It is well known that TQM is a management method, which libraries can benefit from it in several ways. The main purpose of libraries activities is the continual focusing on users servicing, and the satisfaction of their demand. As an Academic Library, it serves the teaching staff, the students and others. The library's collection includes Monographs, Pamphlets, newspapers, CD-ROM, Microfiches, etc. Libraries are the suitable to implement TQM. Libraries are the service oriented centers dedicated to their users (customers). By formulating a strategic plan, and following it with a commitment to continuous quality improvement, library managers can transform and improve their organizations. We have discussed the Total Quality Management and its applications in Library Services Section. The image of the library has also transformed. The growth of the Academic library is measured by adopting the TQM principles. This study Objects to check the application of TQM to the Library services is in state University of Rajasthan and it was analyzed that the framed hypothesis H1: TQM is implemented effectively in libraries of State Universities of Rajasthan and H2: Users are satisfied with the quality of

collection and services of libraries of State Universities of Rajasthan was accepted by various statistical analytical tests and overall it can be stated that The requirements and expectations of the user's are changing day by day and their requirements are very high but TQM if implemented in library tries to make academic library of University more beneficial for user as studied in case of Rajasthan University and MNIT Jaipur.

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