

ICT Services effect on Students' Satisfaction for Library Services: A Study on Students of Technical Degree Colleges of Udaipur

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Abstract

ICT enabled library services incorporates all those library services which were traditionally offered by library through the electronic means either online or offline. So, either the ICT enabled library services are matching the multi-dimensional need of students or not needs to be assessed through its users' satisfaction. The research work was carried out to assess the satisfaction of technical degree college students of Udaipur city of Rajasthan for the Information and Communication Technology enabled services offered to them by their college libraries or any other library they used to visit. Integrating the different applications and platforms of ICT with conventional library facilities leads to several benefits to the students particularly increased accessibility to the digital resources, visiting to the library for particular hours, multimedia enabled teaching and learning application, collaborative learning, ease in retrieving the data assets and many more. So, to assess satisfaction of students for ICT enabled applications and services offered by libraries, structured questionnaire was administered presenting the emphasis over recording the students' opinion for utilization of library, availability of ICT enabled services in libraries, importance of ICT services and usability for students, and satisfaction for ICT services of libraries. Statistical analysis is performed over the factors, innovations and development in library services that drive students for utilizing the library resources, relative importance of ICT services of libraries and its importance for student satisfaction. This research paper is carried out to evaluate the positive side of integrating the ICT serviced and library, and how this integration can be beneficiary to the students for their studies and academic purposes. Final sample size of the student respondents of the study is 150 students of 10 different technical degree colleges of Udaipur. Statistical assessment helped to determine that application of ICT enabled library services by students of technical courses helps in attaining the professional and holistic development with enriched subject knowledge. It is also revealed that greater students' satisfaction can be ensured through the better quality and cross platform integration of all the available resources and services.

Keywords: ICT, Library, Applications, Services, Student, Satisfaction, Integration

Introduction

Today application and integration of information and communication technology in every field of education system is governed by

government and the administration of the universities also to cater the knowledge based services to the students when and where ever they required. This integration is directly linked with the quality of education because information collected and disseminated by libraries defines the quality of teaching and learning process in a college. A library is current scenario should be equipped with electronic means of information management and library automation system to manage the affairs of the library like book issuing, book collection etc. According to Vijeyaluxmy (2015) libraries are not mere store houses; they are rich springs from which knowledge flows out to irrigate the side field of education and culture without the help and cooperation of a library no formal educational programme can successfully fructify.

With fast pace information and technology is replacing all kind of conventional services and methods of offering the institutional benefits to its stakeholders around the globe in all the sectors. Education sector is also not affected with it, particularly for the library services traditional means of library services are now been replaced with digital applications. Advent of ICT is rigorously transforming the practices of possessing and retrieving the information from Library. Integrating the digital application or service platforms in library services is also equivalently costly affair and need to be assessed through satisfaction determination of the stakeholders. Among the different stakeholders student is one prime user of the library services and application need to be evaluated on different parameters for their opinion and satisfaction for the library services (Egharevba, 2018). Advanced technology enabled library services incorporate library services enabled with computer, internet and other electronic accessories related to the sector such as online public access catalogue, e-maps, hardware (fax machines, scanners, bar code readers etc.). Kumar (2012) mentioned that all kind of electronic journals, digital media storage (CDs), books and literary work databases, electronic books, e-notes, and other varieties media are swiftly replacing the conventional resources of libraries.

The status or the level of the satisfaction of users particularly students with all the services offered to them under the scope of ICT enabled library services is of utmost significance for the administration who is investing a good amount over it, and the librarians and academicians who are the other pillars ensuring the successful implementation and execution of ICT enabled library services. Omosekejimi et al. (2015) emphasized over the extent and degree of satisfaction identified due to matching the need of their sundry academic and research based information requirement followed with the continuous use of ICT based services and resources of library. This

research work studies the technical degree college student's satisfaction for the ICT services offered by their college libraries. A library of the technical degree courses is like a practice ground for the students to learn and acquire the necessary skills and abilities that their future employer may ask in them, so a library should be very well equipped with the several services which could help a student to develop his knowledge, intellectual abilities, interpersonal skills, communication skills etc. in totality can actualize the sundry requirement of information of them (Haneefa, 2007). Mainly, library plays a vital role in promoting the open learning practices among the students and other stakeholders through specialized services such as digital repository of question papers, study material and course related scholarly materials, audio-visual learning support materials, virtual library, remote library facilities and other technology enabled facilities. Kaushamalika and Weerakoon (2020) recommended that it is to be anticipated from the library to offer wider and richer information asset to their users to match with their sundry information needs for all kind of present academic requirements in which information outburst and user care are the major challenges. So, evaluating the users' needs from the digitally advanced library platforms and how well the existing services are matching the needs of its users need to be assessed.

It was recognized during the study that many students do not have proper place for reading at their home and hostel, so that it is essential that the libraries of the colleges should be able to deliver the comfortable reading, selective information dissemination, current awareness services, employment information, indexing, internet facilities, digital library services, electronic book facilities, online journal and e-libraries subscription etc. Vijeyaluxmy (2016) also emphasized over the need of training for students which can improve the students ICT skills. So, modernization through ICT is very essential and will definitely deliver the satisfaction among the students also for the colleges and universities.

Aims and Objectives of the Study:

The study is carried out to examine the satisfaction of students towards ICT services of libraries of technical degree colleges of Udaipur, Rajasthan. So, the research work is aimed to assess the following issues associated with the library and students:

To study the impact of ICT on student satisfaction for the library services of technical degree colleges of Udaipur, Rajasthan.

To observe the students opinion for the ICT application in library services.

Literature on Student Satisfaction for Library Services:

Despite the fact that overall advancement of the students' life is driven through his scholarly achievements where the role of mentors, infrastructure of institutions, facilities, library, course curriculum, industry orientation, laboratories, etc is inevitable, but among all the aforementioned factors role of library is very crucial. Library is the place where student, teachers and other users actualize their academic needs through the available information sources or repositories. Despite the several advantages offered by the library to its user still few of the studies are done in the area of user satisfaction from the services offered by library particularly ICT enabled library services.

Kaushamalika and Weerakoon (2020) mentioned that library and its administrator put sincere efforts to match the sundry information need of its users. The characterization and scope of the services offered may vary according the functional type of library and the type of stakeholders associated with it. The effectiveness of the library services can be accessed through the extent by which it matches the information need of its users. Study by the authors was carried out in Sri Lanka to determine the satisfaction of its user for the facilities, services and resources of center libraries. It was revealed that continuous evolution of the library services is mandatory as per the user concerns, and corrective measures should be followed to gain the user satisfaction. Through a proper method of assessment of user satisfaction and perception for the library service, one can better recognize the core area of improvement and conceptual strength of the library. So, user perception and satisfaction are the inevitable area of doing research particularly when the research in the area of ICT application in library are limited (Kaushamalika et al, 2018).

Palczyńska & Rynko (2020) revealed that desirability for accepting the ICT enabled platforms particularly in education is facing challenge due to the users' information processing skills, so the satisfaction towards the ICT enabled library services platforms depends on the level of awareness for them among its users. Particularly Covid outbreak has given a shift in the educational stakeholders' perception and opinion for the online learning platforms and had driven them for all those institutions having good established library configuration enabled with ICT which can offer them all kind of library services in any remote area. Ahmed et al. (2020) mentioned that ICT enabled library services keep one very promising advantage with it of offering the fast and accurate library services to the patrons. In one study of Oyedokun et al. (2018) major

emphasis was given over the allocation of proper funds for improving the information infrastructure, training programmes and enabling the knowledge sharing platforms for all of its patrons as these variables are associated with their overall perception and satisfaction for the library services and ICT enabled platforms.

Need of electronic library resources and services are not as contemporary but still evolving in libraries throughout the nation particularly for the developing their own conventional as well as digitally enabled information repository. Parallel library administrators should work on users' satisfaction because their feedback would be helpful for overall development of the library (Rani, 2018). Effective use of the library services among the students is still very low because of lack of skills and awareness related to information and communication technology lead into lack of technology of enabled library services. So, there is significant need of user orientation and awareness sessions for the students to make them aware about the facilities and services available for them and how the ICT enabled library services can help them to take a leap in their academic career (Veena and Kothari, 2016). For schools, colleges, universities, and institutions library students are the benefactor, hence determining their perception and satisfaction is substantial factor as it contribute in ensuring the survival of the institution in this competitive edge and feedback of the student patrons for the academic institutions is valuable in all the terms (Ng & Priyono, 2018).

Mairaj and Naseer (2013) stated that there is mere need of determining student satisfaction for continuous evolution of level and quality of library services offered. A user satisfaction leads into identifying the most common areas need to be improved, strength or the key factors of library services, future advancements required, weak areas, common practices which can improve the existing setup without any technical upgrade and many more.

Statement of Problem:

Scholarly as well as digital libraries both are primarily configured for offering information resources either in physical form (books, print journals, magazines, newspapers, case folios etc.) or digital form (e-books, CD ROMs, Login rights to Digital Resources, Remote accessibility of Contents etc.) for fulfilling all sundry requirement of information in learning, research and other academic activities of students and other patrons. Today, possibly all the libraries of technical institutions have acquired the ICT enabled platforms for enabling the conventional library services delivery through ICT mediated channels to attain the greater satisfaction of

students and mobility of information required in academic activities. However, it is not just about enabling the library with ICT platforms and applications through acquiring the ICT services but also to ensure a greater piece of return in form of satisfaction from all the technically updated library services to justify the investment performed by the management. As an academic institution greater level of satisfaction from the library services and facilities lead into better image in the academia for the institution so, it is crucial to evaluate the satisfaction of its patrons.

Educational Horizon of Udaipur:

Udaipur is known as Venice of Rajasthan and also ranked as Asia's most famous and beautiful visiting destination. The education facilities in Udaipur are very good as education infrastructure is enriched through combination of Private, Government, Deemed Universities (Mohanlal Sukhadia University, JRN Rajasthan Vidyapeeth, PAHER University, Geetanjali Medical University, Pacific Medical university, Singhania University, Sai Tirupati University) operating in the region followed by a good number of standalone colleges affiliated from Central universities or other Universities are also offering different degree programmes to the students. At present 35 different institutes are offering technical degree courses that are diploma programmes, graduate programmes, post graduate programme, Ph.D., and Certifications etc. There has been a substantial quantitative growth of technical degree institutions towards the promotion and development of technical education in the Udaipur region. Each institutions and colleges has its own library and information centre attached to it catering the needs of faculty, students and research scholars.

Scope and Limitations of Study:

The study investigates the satisfaction of students for the ICT enabled library services of libraries of technical degree colleges of Udaipur. The scope of study is kept limited to 150 students of 10 technical degree colleges of Udaipur established before year 2000, and have managed and very well developed libraries infrastructure and related environment. The study also covers the different types of library services, facilities incorporating the computerized library access, digital library facility, internet, e-subscriptions, etc.

Research Methodology:

Descriptive research design has been carried out for the successful accomplishment of the research objectives. In order to get the feedback of 150 diploma, postgraduate, and graduate students of 10 technical degree colleges for the ICT enabled library services of their college libraries

structured questionnaire (Survey) as a tool was used for primary data collection. Questionnaire was administered after extensive review of the related research work and reliability is determined through the cronbach's alpha statistical tool. Questionnaire method is very powerful method to collect the perception, opinion and overall conduct of the respondent, so the questions incorporated in the questionnaire under the scope of present research work were very well classified in three sections and particularly 7 questions were administered to observe the students' satisfaction for different components of ICT enabled library services. Questionnaire was designed for students to obtain the data regarding the Use and availability of library services, opinion of subject directories, library networking and consortia, satisfaction of overall library services, information regarding resources and services of their respective college libraries. As the population of the research work is limited to 150 students of 10 technical degree colleges, but in order to record the duly filled 150 response sets from the questionnaires more than 265 questionnaires were distributed among the students of different academic institution offering technical courses. Questionnaires were distributed personally to some students and some questionnaires were dropped into the student's mail box by E-mail system. So, percentage analysis between the distributed and collected questionnaire, the responses rate of 150 students of 10 selected technical degree colleges of Udaipur was 56.60%.

Hypotheses Under Assessment:

H01: There is no significant variation in student respondent's opinion of different classes of educational qualification for utilization of library services.

H02: There is no significant difference in students' opinion for the relative importance of ICT services of libraries.

H03: There is no significant difference in students' satisfaction for ICT services of libraries.

H04: There is no linear relationship between student respondents' satisfaction for ICT enabled Library Service features and demographic variables.

Statistical Results and Findings:

Various methods of statistics were used to statistically assess the students' opinion for the proper usage of libraries, availability of information and communication services in libraries, importance of ICT services and its usability, relationship between relative importance of ICT services and usability, and satisfaction for the overall ICT services of libraries. MS Excel and IBM SPSS 23.0 were used as statistical software to match the requirement research work.

A. Demographic Distribution - Particularly Gender, Age and Educational Qualification of student respondents were recorded under the demographic section of the questionnaire. Statistically respondents' distribution in the

different classes of aforementioned demographic characteristics is determined through the frequency and percentage based distribution table presented below.

Table 1: Frequency-Percentage Distribution of Personal Information of Students

Gender				
	Frequency	Percent	Valid Percent	Cumulative Percent
Male	93	62.0	62.0	62.0
Female	57	38.0	38.0	100.0
Age				
	Frequency	Percent	Valid Percent	Cumulative Percent
Under 20	56	37.3	37.3	37.3
21-30	59	39.3	39.3	76.6
31-40	33	22.0	22.0	98.6
More Than 41	2	1.3	1.3	100.0
Educational Background				
Degree	44	29.4	29.4	29.4
P. G. Degree	47	31.3	31.3	60.7
M. Phil & Equivalent	36	24.0	24.0	84.7
Ph. D.	23	15.3	15.3	100.0

Source: Statistical Output

The demographic information of the 150 students of 10 different technical degree colleges is presented in Table 1. From the table it could interpret that out of total student respondents 93 (62.0%) are male and remaining 57 (38.0%) are female students. Age category describes that 56 student respondents (37.3%) were under 20 years, 59 student respondents (39.3%) were of 21-30 year age group, 33 student respondents (22.0%) were of 31-40 year age group and only 2 student respondents (1.3%) of the total student were of more than 41 year age group. 44 (29.4%) students were studying in degree courses, 47 (31.3%) were studying in PG degree, 36 (24.0%) were of M. Phil & equivalent and remaining 23 (15.3%) of total student were research scholars. The entire statistics presents a diversified participation and coverage of different

categories of students which significantly affect the quality and reliability of the inference drawn from the responses collected or observed by the respondents.

B. Effect of Education on Students' Opinion for Proper Usage of Libraries – In order to determine the effect of educational qualification on students' opinion for the proper usage of facilities and services offered to patrons administered hypothesis is statistically evaluated through Chi-Square test.

Table 2: Chi-Square Test Statistics-Students' Opinion for Proper Utilization of Library

Results			
	Yes	No	Row Totals
Degree	33 (32.27) [0.02]	11 (11.73) [0.05]	44
P.G. Degree	30 (34.47) [0.58]	17 (12.53) [1.59]	47
M.Phil & Equivalent	28 (26.40) [0.10]	8 (9.60) [0.27]	36
Ph.D.	19 (16.87) [0.27]	4 (6.13) [0.74]	23
Column Totals	110	40	150 (Grand Total)
Chi-square Value is 3.6087. Df = 3. P-Value is .306937. At 5 % Significance $P < .05$.			

Source: Statistical Output

Chi-Square Test Statistics of students' opinion for proper utilization of library lead to interpret that out of 150 student respondents of technical degree colleges 110 (73.33%) students are using or utilizing the library services for their sundry requirement of information for academic purpose or research purpose and the remaining 40 (26.67%) student respondents are not using the library services properly for the their academic requirements. Chi-Square test statistic value is 3.6087 and the p-value is .306937. So, it could interpret that the result is found non-significant at $p < .05$ which leads to conclude that an insignificant variation is noticed among student respondent's opinion of different classes of educational qualification for the utilization of library services. So, null hypothesis H_0 is accepted as a result of statistical evidences present in the table.

C. Students' Opinion for Availability of Information and Communication Services in Libraries – Very common ICT enabled library services and facilities such as “Computerized Services, Networked Library Service, Online Faculty-Student Integration, Electronic Books, E-Learning Model, Internet Services, Database and File Sharing, Online Study material, Integration with Other libraries, and Online Learning Catalogues” are rendered by the libraries to their patrons to match their sundry information requirement in learning and research. In order to identify the student agreement for the availability of aforementioned ICT enabled library services in their college libraries their feedback was recorded over Likert five point and statically assessed through one sample T-test with test value 4.

Table 3: Students' Opinion for Availability of ICT services in Libraries

One-Sample Test						
	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% CI of the Difference	
					Lower	Upper
Computerized Services	3.264	149	.001	.11900	.0474	.1906
Networked Library Service	5.248	999	.000	.19700	.1233	.2707
Online Faculty-Student Integration	3.324	999	.001	.13100	.0537	.2083

Electronic Books	2.480	999	.013	.09300	.0194	.1666
E-Learning Model	2.957	999	.003	.11200	.0377	.1863
Internet Services	3.883	999	.000	.05900	.0292	.0888
Database and File Sharing	2.141	999	.032	.03300	.0028	.0632
Online Study material	2.273	999	.023	.03500	.0048	.0652
Integration with Other libraries	2.871	999	.004	.04400	.0139	.0741
Online Learning Catalogues	5.550	999	.000	.08300	.0537	.1123

Source: Statistical Output

To confirm the availability of ICT enabled services in the college libraries one sample T-test was performed with the test score value 4 which is the good and a positive conformity of respondents for the availability of service in their college libraries. If Sig. (2-tailed) p value is found lesser than 0.05 then it can be concluded that the population means are statistically significantly different and if Sig. (2-tailed) p value is found greater than 0.05, then it could conclude that the difference between sample-estimated population mean and the comparison population mean would not be statistically significantly different.

From the statistics of students' opinion for availability of ICT services in libraries presented in Table 3 it could interpret that for all the listed ICT enabled library services like "Computerized Services, Networked Library Service, Online Faculty-Student Integration, Electronic Books, E-Learning Model, Internet Services, Database and File Sharing, Online Study material, Integration with Other libraries, and Online Learning Catalogues" the difference between the sample estimated population mean and the comparison population mean is statistically significantly different which lead to conclude that student responses were positive for these ICT service availability in their college libraries. This present that student respondent showed positive conformity towards the availability of ICT

service in their college libraries. So, it can be interpreted from the conformity of students' opinion for the ICT enabled library services that institutional library configuration and infrastructure in technical colleges and institutions of Udaipur is ICT enabled and quite rich in terms of technology and other technology platforms.

D. Analyzing the Importance of ICT Services and Usability for Students

At what extent the student users of the library services agrees with the usability of ICT services for them is recorded under six point scaling and the difference between the different response groups is significant or not is determined with the help of Crosstab Pearson Chi-Square test. Crosstab Pearson Chi-Square test presents two different statistical tables as outputs; first table of Crosstab presents the cross-sectional frequency wise distribution of response sets presenting common conduct for column and row variables. Second table is of Pearson Chi-Square test statistics helped to interpret the significance of difference in the cross sectional response sets and Linear by Linear Association between variables through Asymp Sig. (2-sided) column value. If the values of Asymp Sig. (2-sided) column are found greater than 0.05 lead to interpret the insignificance and lesser than 0.05 lead to interpret the significance of difference in the cross sectional response sets and Linear by Linear Association

Table 4: Importance of ICT Services and Usability for Students

Crosstab								
Count								
		Usability of ICT service of Libraries for Student						Total
		Very much useful	Mostly Useful	Sometimes Useful Sometimes Not	Mostly Not Useful	Useless for Me	Very Complicated	
Relative Importance of ICT Service	Little	15	17	5	7	2	2	48
	Some	14	4	4	8	4	2	36
	A Lot	27	20	5	11	3	0	66
Total		56	41	14	26	9	4	150

Source: Statistical Output

Cross-sectional frequency distribution of student respondents' responses ("Very much useful Mostly Useful Sometimes Useful Sometimes Not Mostly Not Useful Useless for Me Very Complicated") for Relative Importance of ICT Service is presented in the above table lead to interpret that there is a mix responses for the relative importance of ICT enabled services of libraries and its

relative importance for the students. Difference between the very much useful responses and very complicated to use is noticeable which confirms that using the ICT enabled library services is user oriented and depends on students' ICT skills and awareness.

Table 5: Chi-Square Test for Analyzing Significance of Difference in Students' Opinion for Relative Importance of ICT Services and Usability

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	69.483 ^a	10	.000
Likelihood Ratio	77.517	10	.000
Linear-by-Linear Association	3.526	1	.043
N of Valid Cases	150		
a. 3 cells (16.7%) have expected count less than 5. The minimum expected count is 1.19.			

Source: Statistical Output

Chi-Square Test statistics of significance of difference in students' opinion for relative importance of ICT Services and Usability is presented in the above table. Statistical values of the table such as Asymp. Sig. (2- Sided) column values (Pearson Chi-Square Asymp. Sig. (2- Sided) value is .000, Likelihood Ratio Asymp. Sig. (2- Sided) Value is .000 and Linear by Linear Association Asymp. Sig. (2- Sided) Values is .043) are less than 0.05 which confirms that difference between cross-sectional response sets of students' opinion for relative importance of ICT services of libraries is significant and relationship between relative importance of ICT services of libraries and its importance for student is also statistically significant. So, H02 is

accepted i.e. there is no significant difference in the students' opinion for the relative importance of ICT services of libraries.

E. Analysis of Student Satisfaction for Overall ICT Enabled Services of Libraries – Satisfaction of patrons for the ICT features particularly for ICT enabled services and facilities such as infrastructure, readiness, facilities, security, and virtual integration is recorded in two categories that are either satisfied or not satisfied. In order to assess the significance of difference in the recorded opinion of student respondents for aforementioned ICT enabled service and facilities features is statistically assessed through Chi-Square test.

Table 6: Satisfaction for the Overall ICT Services of Libraries

ICT Features	Satisfied	Not Satisfied	Row Totals
ICT Infrastructure	128 (105.40) [4.85]	22 (44.60) [11.45]	150
ICT Readiness	98 (105.40) [0.52]	52 (44.60) [1.23]	150
ICT Facilities	106 (105.40) [0.00]	44 (44.60) [0.01]	150
ICT Security	95 (105.40) [1.03]	55 (44.60) [2.43]	150
ICT Virtual Integration	100 (105.40) [0.28]	50 (44.60) [0.65]	150
Column Totals	527	223	750 (Grand Total)
Chi-square Value is 22.4385. Df = 4. P-Value is 0.000164. At 5 % Significance P < .05.			

Source: Statistical Output

Statistical distribution of student respondents' opinion for the listed ICT features pertaining to their level of satisfaction is presented in the above table. Chi-Square Test Statistics lead to interpret that out of 150 student respondents of technical degree colleges 128 students were satisfied with ICT Infrastructure and 22 students were not satisfied, 98 students were satisfied with ICT Readiness and 52 students were not satisfied, 106 students were satisfied with ICT Facilities and 44 students were not satisfied, 95 students were satisfied with ICT Security and 55 students were not satisfied, and 100 students were satisfied with ICT Virtual Integration and 50 students were not satisfied. Chi-Square test statistic value is 22.4385 and the p-value is 0.000164. So, it could interpret that the result

is found significant at $p < .05$ which leads to conclude that significant variation is noticed among student respondent's opinion for listed ICT feature. So, null hypothesis Ho3 "There is no significant difference in students' satisfaction for ICT services of libraries" is accepted as a result of statistical evidences present in the table.

F. Demographic Variables Relationship with Student Satisfaction for ICT Services and Facilities – To examine the relationship effect between overall satisfaction of student respondents for ICT services and Facilities, and demographic variables (Gender, Age and Educational Qualification) multiple regression analysis was performed.

Table 7: Model Summary of Regression Analysis

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.789 ^a	.622	.620	.72421
a. Predictors: (Constant), Gender, Age, Educational_Qualification				
b. Dependent Variable: Satisfaction of Student Respondents				

Source: Statistical Output

Model Summary of Regression analysis of demographic variables relationship with student satisfaction for ICT services and facilities is presented in table above helped to interpret that R which is one measure of the quality of the prediction of the dependent variable is .789 for the model presents good level of prediction. The "R Square" which is the proportion of variance in the dependent variable is

0.622 showed that independent variables explain 62.2% of the variability of the dependent variable Satisfaction experienced from student respondents. Adjusted R Square value is 0.620 and standard error of estimate for the linear relationship between the participating variables is 0.72421.

Table 8: ANOVA Test Statistics of Regression Analysis

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	857.713	3	122.530	233.622	.000 ^b
	Residual	520.286	146	.524		
	Total	1377.999	149			
a. Dependent Variable: Satisfaction of Student Respondents						
b. Predictors: (Constant), Gender, Age, Educational_Qualification						

Source: Statistical Output

The F-ratio in the ANOVA Table tests showed that the independent variables statistically significantly predict the dependent variable, $F(3, 146) = 233.622, p < .0005$ (i.e., the regression model is a good fit of the data). So, it could conclude that there is significant linear relationship between overall satisfactions of students for ICT enabled services and facilities and demographic characteristics (Gender, Age, and Educational Qualification) and H_{a04} must be accepted i.e. there is no linear relationship between student respondents' satisfaction for ICT enabled Library Service features and demographic variables.

CONCLUSION

With the help of statistical evidences presented in the research work study revealed that Integration of information and technology applications with the library services are offering new dimension of academic satisfaction to the student of different technical degree colleges. It was observed that innovation and development in library services is positively pushing the student for positive and fruitful utilization of library resources. For the purpose to deliver the competitive academic advantages to the student's of technical degree colleges are offering several ICT services in their libraries and developing ICT enabled infrastructure for earning the students satisfaction as well. There is a significant relationship between relative importance of ICT services of libraries and its importance for student. It was also recognized that most of the students are satisfied with the ICT services of their college libraries. Patrons' opinion for the effect of demographic variables on satisfaction for ICT enabled services and features also confirmed that age, gender and educational qualification like characteristics drive their satisfaction for library services enabled with ICT capacity. A greater level of satisfaction for ICT enabled services and facilities such as infrastructure, readiness, facilities, security, and virtual integration revealed that students are much satisfied with the present ICT enabled services offered by their college libraries to them. But, still continuous evolution in technologies is mandatorily recommended.

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