Factor Influencing use of INDEST E-Resources by IIT Faculty: A Study

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Abstract

This study examines the use of INDEST E-resources by faculty of IIT faculty. Among the significant variables, Availability and accessibility has highest T value it showed high level of linear relation with respect to level of satisfaction. Independent variables Basic Advantages, Availability and accessibility, Expected Facilitation, Core purpose and Value addition are statistically significant at 5% level, rest factors Disadvantages, Augmented Purpose, Limitation of accessing and Strength in accessing network are not significant. Among the significant variables, F1 Basic Advantages has highest T value it showed high level of linear relation with respect to level of Importance.

Keywords

INDEST Consortium; AICTE Consortium; IITs; E-Resources; IIT Faculty; INDEST E-Resources; Factors and Satisfaction.

Electronic access

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1. INTRODUCTION

Many libraries across the globe are the beneficiaries of unlimited electronic resources. The users of academic libraries are able to access electronic resources as easily as print information. The libraries of IITs are the pioneers in embracing this change. They are the first and foremost institutions to initiate INDEST library consortia. The INDEST library Consortia has tremendously expanded and has led to the provision of different kinds of services to the users. The issues of lack of funds and the struggle to cope with purchase of books and other resources and the budget cuts is very easy to solve due to the optimum utilization of consortia.

These days the service qualities of an institution are measured in terms of digital collections, e-resources, networking element, ICT tools, etc. Electronic information is the most recent development in information technology and is among the most powerful implement ever invented in human history. The library users' satisfaction plays a crucial role in the enlargement and provisions of the library services. The potential users' feedback regarding the library resources, services and facilities should be considered for providing necessary resources and amenities in the library. In particular, academic institutions need to measure the users' satisfaction to maintain the quality in all the activities. Computers and computer applications have been widely initiated, and an integrated library system has been installed. The Library provides remote access to e-resources. In fact, the dawn of a new era in library services and access to resources has risen in IIT-Guwahati in harmony with the worldwide information revolution in academia.

Consortium is very important for the libraries for solving the today's burning problems like information explosion, diversity of users need, financial crunch and so on. Some of the examples of library consortia initiatives in India are INDEST-AICTE Consortium, UGC INFONET Consortium, FORSA Consortium and CSIR Consortium. The electronic journals are the sources of original and updated information mainly covering studies of science and technology.

2. LITERATURE REVIEW

Some of the similar studies carried out in this area of work are reported here. Tamrakar and Garg (2016). opined that Indian Institute of Technology-Guwahati

made voluminous efforts to provide better e-resources services to its users. They measure the extent and use of e-resources, information alert services, awareness towards the e-resources, purpose of using the e-resources, attitude of library staff and overall quality of e-services offered by the library of Indian Institute of Technology-Guwahati. 394 survey based questionnaires were distributed and received from PG students, research scholars and faculty members of IIT-Guwahati which were analyzed in this study. The found that e-journals are more popular than print journals; the library regularly invites users views regarding the information constraint; and the library continuously puts forward information alert services to their users. Most of the users are aware about the e-journals/database offered by the library concerned to their subject and also are able to explore the e-resources allied to their area of interest. Khanchandani, V and Hasan, N (2016). Indian Institute of Technology, Delhi is one of the premier institutes of India and was established in 1961. To cater the research and the teaching needs of the institute, Central Library, IIT Delhi is providing different resources, services and products to the faculty and the students. To maximize the usage and for increasing the importance, libraries in the present era around the world are adopting the different marketing strategies. Marketing besides providing sustainability, also helps in realizing the goals of libraries. They provide a comprehensive overview on different marketing strategies adopted by libraries with special reference to Central Library, IIT Delhi for reaching to its users and to increase the outreach. The paper is intended to help professionals and the library users in knowing the various resources, services and products provided by the Central Library, IIT Delhi as a model to be explored and followed by other libraries and their administrators. Srivastava and Verma (2015) are of the view that consortium based library subscription to e-journals and electronic full-text databases are picking up good momentum in India. INDEST-AICTE consortium, CSIR consortium, IIM consortium, INFLIBNET's, UGC-INFONET consortium, DRDO consortium and so on are successful ones to name a few. Khan (2015) portray that users are the key component of a library. An attempt was made to study the use of e-resource by the users with specific reference to INFLIBNET N-LIST. Khaparde and Ambedkar (2014) discuss the developments in ICTs, the growth of ETDs, history of ETD in India. Further the paper presents an account of UGC Regulations 2005 and 2009, INDEST Consortium, ICSSR – NASSDOC and National Knowledge Commissions.

Present study is new compared to the previous studies and no such study has been conducted on the status of use of INDEST E-Resources by the faculty of IITs. Therefore, in this study an attempt is made to study the Age Wise Using of INDEST E-Resources by the Faculty of IITs.

3 OBJECTIVES OF THE STUDY

The main objectives of the study are:

1. To know the relation between factors influencing usage of INDEST with Satisfaction.

2. To know the relation between factors influencing usage of INDEST with Importance.

3. To know the relation between factors influencing usage of INDEST with reading Electronic version usage.

4. To know the relation between factors influencing usage of INDEST with reading print version usage.

4. SCOPE AND LIMITATION OF THE STUDY

The present study focuses on the use of INDEST e-resources by the faculty of top seven Indian Institute of Technology (IITs). This study is limited to top seven Indian Institute of Technology and all of them are governed by the Institutes of Technology Act, 1961 which has declared them as institutions of national importance and further lays down their powers, duties, and framework for governance. The top seven IITs are IIT Kharagpur (IIT Kgp), IIT Bombay (IITB), IIT Madras (IITM), IIT Kanpur (IITK), IIT Delhi (IITD), IIT Guwahati (IITG) and IIT Roorkee (IITR).

5. METHODOLOGIES

The survey method was considered most appropriate for this study because it can measure Faculty' background, experience and what they know about electronic information, and it was well suited to the research questions taken up for this study. The data has been obtained by using questionnaires; this data has been standardized for comparison. The questionnaire was designed, keeping in view the objectives of the study for collecting usage data from faculty of different departments of seven IITs. Along with averages, percentages, mean SD, several advanced statistical tools like Analysis of Variance

(ANOVA)**,** were used for the purpose of analysis and interpretation.

6. RESULT AND DISCUSSION

Hypothesis of the study
Ho: There is no linear relationship existing between Factors affecting INDEST Vs Level of Satisfaction.

Ha: There is linear relationship existing between Factors affecting INDEST Vs Level of Satisfaction.

Table 6.1: Model Scores 1

Independent Variable	Dependent Variable	R Square	Adjusted RSquare	Std. Error of the Estimate
Basic Advantages, Disadvantages, Augmented Purpose, Availability and accessibility, Limitation of accessing, Strength in accessing network, Expected Facilitation, Core purpose, Value addition	Satisfaction	0.621	0.386	0.371

The table 6.1 and 6.1.A shows the impact of Factors affecting INDEST usage on Satisfaction. The correlation coefficient value (R) is 0.621 for Model1, which exhibits a very high amount of correlation between the independent variable(Factors affects usage of INDEST) and dependent variable (Satisfaction), with the F-value being 25.41 and its associated significance level being small (P<0.01). The R square value gives us the goodness of fit of the regression model. That is, the amount of variability explained by the whole of the selected predictor variables in the model for 38.6% ($R^2\%$=.100 * x100) of variation in the dependent variable (Satisfaction).

Table 6.1:A ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
		ANOVA			
Regression	103.44	9	11.49		
Residual	164.56	364	0.45	25.41	0.00
Total	268.01	373			

Table 6.2 shows among the Independent variables Basic Advantages, Augmented Purpose, Availability and accessibility, Strength in accessing network and Core purpose are statistically significant at 5% level; rest factors (Disadvantages, Limitation of accessing system and Value addition) are not significant. Among the significant variables, Availability and accessibility has highest T value it showed high level of linear relation with respect to level of satisfaction.

Table 6.2: Coefficients

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	0.30	0.39		0.77	0.44
Basic Advantages	0.27	0.07	0.20	3.60	0.00
Disadvantages	-0.02	0.05	-0.02	-0.43	0.67
Augmented Purpose	0.12	0.05	0.11	2.26	0.02
Availability and accessibility	0.37	0.05	0.38	7.93	0.00
Limitation of accessing system	-0.06	0.04	-0.09	-1.72	0.09
Strength in accessing network	0.15	0.05	-0.14	2.75	0.01
Expected Facilitation	-0.02	0.04	-0.03	-0.61	0.54
Core purpose	0.41	0.06	0.32	6.93	0.00
Value addition	0.13	0.07	-0.10	1.87	0.06

Hypothesis – X
Ho: There is no linear relationship existing between Factors affecting INDEST Vs Level of Importance.
Ha: There is linear relationship existing between Factors affecting INDEST Vs Level of Importance.

Table 6.3: Model Scores 2

Independent Variable	Dependent Variable	R Square	Adjusted Square	Std.Error thr Estimate
Basic Advantages, Disadvantages, Augmented Purpose, Availability and accessibility, Limitation of accessing, Strength in accessing network, Expected Facilitation, Core purpose, Value addition	Importance	0.535 0.286	0.269	0.611

The table 6.3 and 6.3.A shows the impact of Factors affecting INDEST usage on Importance. The correlation coefficient value (R) is 0. 535 for Model2, which exhibits a very high amount of correlation between the independent variable(Factors affects usage of INDEST) and dependent variable (Importance), with the F-ratio being 16.22 and its associated significance level being small (P<0.01). The R square value gives us the goodness of fit of the regression model. That is, the amount of variability explained by the whole of the selected predictor variables in the model for 28.6% (R^2%=.100 * x100) of variation in the dependent variable (Satisfaction).

Table 63.A: ANOVA

	Model	Sum of Squares	df	Mean Square	F	Sig.
	ANOVA					
	Regression	54.55	9	6.06		
2	Residual	135.98	364	0.37	16.22	0.00
	Total	190.52	373			

This section deals with the (Coefficients) factors affecting INDEST E-Resources usage on level of importance on faculty of top seven IITs.

Table 6.4: Coefficients

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Unstandardized Coefficients Beta	t	Sig.
(Constant)	2.38	0.36		6.68	0.00
Basic Advantages	0.44	0.07	0.40	6.58	0.00
Disadvantages	0.06	0.04	-0.08	1.36	0.17
Augmented Purpose	0.07	0.05	0.08	1.41	0.16
Availability and accessibility	0.12	0.04	0.14	2.79	0.01
Limitation of accessing system	-0.03	0.03	-0.05	-0.97	0.33
Strength in accessing network	0.09	0.05	0.10	1.85	0.07
Expected Facilitation	0.09	0.04	-0.13	2.59	0.01
Core purpose	0.21	0.05	0.19	3.94	0.00
Value addition	0.14	0.06	-0.13	2.35	0.02

Table 6.4 shows among the Independent variables Basic Advantages, Availability and accessibility, Expected Facilitation, Core purpose and Value addition are statistically significant at 5% level, rest factors Disadvantages, Augmented Purpose, Limitation of accessing and Strength in accessing network are not significant. Among the significant variables, F1 Basic Advantages has highest T value it showed high level of linear relation with respect to level of Importance.

7. CONCLUSION

The correlation coefficient value (R) is 0.621 for Model1, which exhibits a very high amount of correlation between the independent variable(Factors affects usage of INDEST) and dependent variable (Satisfaction), with the F-value being 25.41 and its associated significance level being small (P<0.01). The R square value gives us the goodness of fit of the regression model. That is, the amount of variability explained by the whole of the selected predictor variables in the model for 38.6% (R^2%=.100 * x100) of variation in the dependent variable (Satisfaction) Independent variables Basic Advantages, Augmented Purpose, Availability and accessibility, Strength in accessing network and Core purpose are statistically significant at 5% level; rest factors (Disadvantages, Limitation of accessing system and Value addition) are not significant. Among the significant variables,

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