Exploring the challenges faced by students and teachers in utilization and implementation of e-education at professional institutes in Satara district

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Abstract:-This paper aims at exploring challenges faced by students and teachers in utilization and implementation of e-education at professional institutes residing in Satara district. The focus of the study is towards challenges associated with implementation of e-education. A study in this regard was carried out; the survey reveals the fact that majority of respondent 85.6% utilizing e-education and having opinion that there is high impact of lack of users IT knowledge, lack of skilled IT staff, internet and computer cost, lack of top officials commitment & understanding and lack of proper legislation & laws on implementation of e-education.

Keywords: e-education, professional institutes, Satara district, IT knowledge, internet.

I. INTRODUCTION

India has one of the largest higher education systems in the world [4].Despite having the largest higher education system, the quality of education, in general, cannot be claimed to be the best. Technical Education in India has seen massive growth in recent years with a large increase in total number of institutes imparting technical education. On one hand, this growth promises to produce more technically skilled youth to fulfill needs of ever growing Indian industry and on the other hand it poses a huge problem for the governing bodies like UGC, AICTE, NCVT and state technical education boards to maintain & improve the quality of education being imparted through these new & existing technical institutes. This lack of knowledge, qualities & skills desired by the employers, from the youth, may lead to the problems like unemployment/underemployment, which intern will lead to their discontentment & hence their resentment that will be reflected in terms of an increase in crime and other antisocial activities. As it stands today, our education system is chaotic, to say the least. It is characterized by substandard technical institution lagging good infrastructure and qualified teachers, teacher truancy, obsolete syllabi, inadequate Infrastructure, unemployable graduates and a lot more other problems.

A. What is e-education?

The concept "e-education" alludes toward “the appliance of the IT to the conveyance of education encounters. E-education happens in proper electronic rooms, on organization intranets utilized for in the nick of instant training, sound and video bunch conversation & during such an others technology mediated education areas.”

B. Satara District:

Satara district is a district of Maharashtra state in western India with an area 10,480km2 Satara district consist of four sub-division namely Satara, Wai, Karad and Phaltan divided into 11 talukas. These are Satara, Karad, Wai, Mahabaleshwar, Phaltan, Man, Khatav, Koregaon, Patan, Jaoli and Khandala. Satara district has many professional institutes such as Engineering colleges (8), Polytechnic (18), Medical and related colleges (12), Management institutes (9), Law colleges (3) which is shown in TABLE I.

TABLE-I
PROFESSIONAL INSTITUTES IN SATARA DISTRICT

Taluka	Professional Institutes in Satara District				
	Engineering Colleges	**Polytechnic**	**Medical& Related Colleges**	**Management Institutes**	**Law Colleges**
Satara	4	7	3	4	1
Karad	2	5	7	5	1
Wai	0	0	0	0	0
Mahabaleshwar	0	0	1	0	0
Phaltan	1	1	0	0	1
Man	0	1	0	0	0
Khatav	0	2	1	0	0
Koregaon	0	0	0	0	0
Patan	0	1	0	0	0
Jaoli	0	0	0	0	0
Khandala	1	1	0	0	0
Total	**8**	**18**	**12**	**9**	**3**

II. OBJECTIVE

An estimation of the problems faced by students and teachers in implementation of e-education.

III. SCOPE LIMITATION AND METHODOLOGY

The methodology adopted for the data collection purpose was survey, contact and questionnaire based. The scope of the sample is students and teachers from 50 professional institutes in Satara district. A Satara district as a bird eye view sample was chosen due to lack of resources to reach to every professional institutes in India. A sample size of 381 students out of 41817 students and 319 teachers out of 1876 teachers was selected using sample size calculator population proportion, further structured questionnaire, website links, institutes websites, survey method and contact method was used to collect data mentioned in TABLE-I. Percentage analysis methodology was used to analyze the obtained data and descriptive analysis methodology was adopted to interpret the results.

IV. DATA ANALYSIS AND RESULT

1. **Respondents Occupation:**

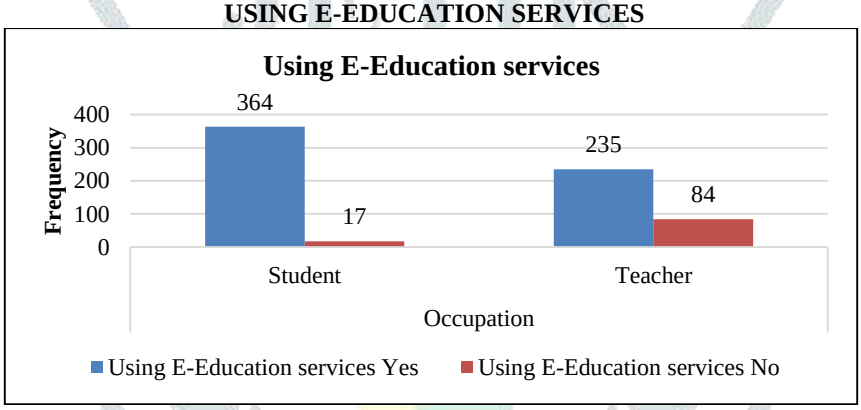
TABLE-II
OCCUPATION OF RESPONDENTS

Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Student	381	54.4	54.4	54.4
Teacher	319	45.6	45.6	100.0
Total	700	100.0	100.0	

It is seen from the above table that the total numbers of respondent are 700 out of 54.4% of the respondent are Students and 45.6% are Teachers.

2. **Using E-Education services:**

GRAPH-II
USING E-EDUCATION SERVICES



It is found from above graph that, majority of the students 95.5% (364) are uses e-education services and only 4.5% (17) students are not uses e-education services. Whereas majority of the teachers 73.7% (235) are uses e-education services and only 26.3% (84) teachers are not uses e-education services.

3. **Lack of users IT knowledge, awareness & motivation:**

TABLE-IV
LACK OF USERS IT KNOWLEDGE, AWARENESS & MOTIVATION

		Occupation		
		Student	Teacher	Total
Lack of users IT knowledge, awareness & motivation	Low Relevant	20	20	40
		5.5%	8.5%	6.7%
	Average	122	115	237
		33.5%	48.9%	39.6%
	High Relevant	222	100	322
		61.0%	42.6%	53.8%
Total		364	235	599
		100.0%	100.0%	100.0%

It is found from above table that only5.5% of the students are of the opinion that relevance of lack of users IT knowledge, awareness & motivation impact on implementation of e-education services founds low, 33.5% are of the opinion average relevance and majority 61% students are of the opinion that relevance of lack of users IT knowledge, awareness & motivation impact on implementation of e-education services founds high **whereas** only8.5% of the teachers of the opinion that relevance of lack of users IT knowledge, awareness & motivation impact on implementation of e-education services founds low, 48.9% are of the opinion average relevance and majority 42.6% teachers are of the opinion that relevance of lack of users IT knowledge, awareness & motivation impact on implementation of e-education services founds high**.**

4. **Lack of Skilled IT staff:**

TABLE-V
LACK OF SKILLED IT STAFF

		Occupation		
		Student	Teacher	Total
Lack of Skilled IT staff	Low Relevant	14	14	28
		3.8%	6.0%	4.7%
	Average	82	82	164
		22.5%	34.9%	27.4%
	High Relevant	268	139	407
		73.6%	59.1%	67.9%
Total		364	235	599
		100.0%	100.0%	100.0%

It is found from above table that only 3.8% of the students are of the opinion that relevance of lack of skilled IT staff impact on implementation of e-education services founds low, 22.5% are of the opinion average relevance and majority 73.6% students are of the opinion that relevance of lack of skilled IT staff impact on implementation of e-education services founds high **whereas** only **6**% of the teachers of the opinion that relevance of lack of skilled IT staff impact on implementation of e-education services founds low, 34.9% are of the opinion average relevance and majority 59.1% teachers are of the opinion that relevance of lack of skilled IT staff impact on implementation of e-education services founds high**.**

5. **Internet & computer cost:**

TABLE-VI
INTERNET & COMPUTER COST

		Occupation		
		Student	Teacher	Total
Internet & computer cost	Low Relevant	4	4	8
		1.1%	1.7%	1.3%
	Average	26	26	52
		7.1%	11.1%	8.7%
	High Relevant	334	205	539
		91.8%	87.2%	90.0%
Total		364	235	599
		100.0%	100.0%	100.0%

It is found from above table that only1.1% of the students are of the opinion that relevance of internet & computer cost impact on implementation of e-education services founds low, 7.1% are of the opinion average relevance and majority 91.8% students are of the opinion that relevance of internet & computer cost impact on implementation of e-education services founds high **whereas o**nly1.7% of the teachers of the opinion that relevance of internet & computer cost impact on implementation of e-education services founds low, 11.1% are of the opinion average relevance and majority 87.2% teachers are of the opinion that relevance of internet & computer cost impact on implementation of e-education services founds high**.**

6. **Lack of users trust and confidence:**

TABLE-VII
LACK OF USERS TRUST AND CONFIDENCE

		Occupation		
		Student	Teacher	Total
Lack of users trust and confidence	Low Relevant	219	141	360
		60.2%	60.0%	60.1%
	Average	124	73	197
		34.1%	31.1%	32.9%
	High Relevant	21	21	42
		5.8%	8.9%	7.0%
Total		364	235	599
		100.0%	100.0%	100.0%

It is found from above table that majority of 60.2% of the students are of the opinion that relevance of lack of users trust and confidence impact on implementation of e-education services founds low, 34.1% are of the opinion average relevance and very small 5.8% students are of the opinion that relevance of lack of users trust and confidence impact on implementation of e-education services founds high **whereas m**ajority of 60% of the teachers of the opinion that relevance of lack of users trust and confidence impact on implementation of e-education services founds low, 31.1% are of the opinion average relevance and only

8.9% teachers are of the opinion that relevance of lack of users trust and confidence impact on implementation of e-education services founds high**.**

7. **Lack of security:**

TABLE-VIII
LACK OF SECURITY

		Occupation		
		Student	Teacher	Total
Lack of security	Low Relevant	177	104	281
		48.6%	44.3%	46.9%
	Average	156	102	258
		42.9%	43.4%	43.1%
	High Relevant	31	29	60
		8.5%	12.3%	10.0%
Total		364	235	599
		100.0%	100.0%	100.0%

It is found from above table that majority of48.6% of the students are of the opinion that relevance of lack of security impact on implementation of e-education services founds low, 42.9% are of the opinion average relevance and very small 8.5% students are of the opinion that relevance of lack of security impact on implementation of e-education services founds high **whereas** 44.3% of the teachers of the opinion that relevance of lack of security impact on implementation of e-education services founds low, 43.4% are of the opinion average relevance and only 12.3% teachers are of the opinion that relevance of lack of security impact on implementation of e-education services founds high**.**

8. **Culture and language conflict:**

TABLE-IX
CULTURE AND LANGUAGE CONFLICT

		Occupation		
		Student	Teacher	Total
Culture and language conflict	Low Relevant	13	18	31
		3.6%	7.7%	5.2%
	Average	221	112	333
		60.7%	47.7%	55.6%
	High Relevant	130	105	235
		35.7%	44.7%	39.2%
Total		364	235	599
		100.0%	100.0%	100.0%

It is found from above table that only 3.6% of the students are of the opinion that relevance of culture and language conflict impact on implementation of e-education services founds low, 60.7% are of the opinion average relevance and 35.7% students are of the opinion that relevance of culture and language conflict impact on implementation of e-education services founds high **whereas o**nly7.7% of the teachers of the opinion that relevance of culture and language conflict impact on implementation of e-education services founds low, 47.7% are of the opinion average relevance and 44.7% teachers are of the opinion that relevance of culture and language conflict impact on implementation of e-education services founds high**.**

9. **Poor infrastructure and technologies:**

TABLE-X
POOR INFRASTRUCTURE AND TECHNOLOGIES

		Occupation		
		Student	Teacher	Total
Poor infrastructure and technologies	Low Relevant	260	16	276
		71.4%	6.8%	46.1%
	Average	89	53	142
		24.5%	22.6%	23.7%
	High Relevant	15	166	181
		4.1%	70.6%	30.2%
Total		364	235	599
		100.0%	100.0%	100.0%

It is found from above table that majority of 71.4% of the students are of the opinion that relevance of poor infrastructure and technologies impact on implementation of e-education services founds low, 24.5% are of the opinion average relevance and very small 4.1% students are of the opinion that relevance of poor infrastructure and technologies impact on implementation of e-education services founds high **whereas** 6.8% of the teachers of the opinion that relevance of poor infrastructure and technologies

impact on implementation of e-education services founds low, 22.6% are of the opinion average relevance and only 70.6% teachers are of the opinion that relevance of poor infrastructure and technologies impact on implementation of e-education services founds high**.**

10. **Lack of top officials commitment and understanding:**

TABLE-XI
LACK OF TOP OFFICIALS COMMITMENT AND UNDERSTANDING

		Occupation		
		Student	Teacher	Total
Lack of top officials commitment and understanding	Low Relevant	101	10	111
		27.7%	4.3%	18.5%
	Average	154	36	190
		42.3%	15.3%	31.7%
	High Relevant	109	189	298
		29.9%	80.4%	49.7%
Total		364	235	599
		100.0%	100.0%	100.0%

It is found from above table that 27.7% of the students are of the opinion that relevance of lack of top official's commitment and understanding impact on implementation of e-education services founds low, 42.3% are of the opinion average relevance and 29.9% students are of the opinion that relevance of lack of top official's commitment and understanding impact on implementation of e-education services founds high **whereas** 4.3% of the teachers of the opinion that relevance of lack of top officials commitment and understanding impact on implementation of e-education services founds low, 15.3% are of the opinion average relevance and majority of 80.4% teachers are of the opinion that relevance of lack of top official's commitment and understanding impact on implementation of e-education services founds high**.**

11. **Bad system control and management:**

TABLE-XII
BAD SYSTEM CONTROL AND MANAGEMENT

		Occupation		
		Student	Teacher	Total
Bad system control and management	Low Relevant	299	5	304
		82.1%	2.1%	50.8%
	Average	34	18	52
		9.3%	7.7%	8.7%
	High Relevant	31	212	243
		8.5%	90.2%	40.6%
Total		364	235	599
		100.0%	100.0%	100.0%

It is found from above table that 82.1% of the students are of the opinion that relevance of bad system control and management impact on implementation of e-education services founds low, 9.3% are of the opinion average relevance and only 8.5% students are of the opinion that relevance of bad system control and management impact on implementation of e-education services founds high **whereas** 2.1% of the teachers of the opinion that relevance of bad system control and management impact on implementation of e-education services founds low, 7.7% are of the opinion average relevance and majority of 90.2% teachers are of the opinion that relevance of bad system control and management impact on implementation of e-education services founds high**.**

12. **Lack of funding:**

TABLE-XIII
LACK OF FUNDING

		Occupation		
		Student	Teacher	Total
Lack of funding	Low Relevant	187	125	312
		51.4%	53.2%	52.1%
	Average	147	92	239
		40.4%	39.1%	39.9%
	High Relevant	30	18	48
		8.2%	7.7%	8.0%
Total		364	235	599
		100.0%	100.0%	100.0%

It is found from above table that majority of51.4% of the students are of the opinion that relevance of lack of funding impact on implementation of e-education services founds low, 40.4% are of the opinion average relevance and very small 8.2% students are of the opinion that relevance of lack of funding impact on implementation of e-education services founds high **whereas** 53.2% of the teachers of the opinion that relevance of lack of funding impact on implementation of e-education services founds low, 39.1% are of the opinion average relevance and only 7.7% teachers are of the opinion that relevance of lack of funding impact on implementation of e-education services founds high**.**

13. **Lack of proper legislation and laws:**

TABLE-XIV
LACK OF PROPER LEGISLATION AND LAWS

		Occupation		
		Student	Teacher	Total
Lack of proper legislation and laws	Low Relevant	17	15	32
		4.7%	6.4%	5.3%
	Average	90	54	144
		24.7%	23.0%	24.0%
	High Relevant	257	166	423
		70.6%	70.6%	70.6%
Total		364	235	599
		100.0%	100.0%	100.0%

It is found from above table that only **4.7**% of the students are of the opinion that relevance of lack of proper legislation and laws impact on implementation of e-education services founds low, 24.7% are of the opinion average relevance and 70.6% students are of the opinion that relevance of lack of proper legislation and laws impact on implementation of e-education services founds high **whereas** only **6.4**% of the teachers of the opinion that relevance of lack of proper legislation and laws impact on implementation of e-education services founds low, 23% are of the opinion average relevance and 70.6% teachers are of the opinion that relevance of lack of proper legislation and laws impact on implementation of e-education services founds high**.**

V. FINDINGS

To reveals the result of study following findings found depending on interpreted survey data.

The majority of respondent 85.6% uses e-education services and only 14.4% are not uses e-education services. It is observed that only 6.7% are of the opinion that relevance of lack of users IT knowledge, awareness & motivation impact on implementation of e-Education services founds low whereas majority of the respondent are of the opinion that relevance of lack of users IT knowledge, awareness & motivation impact on implementation of e-education services founds average to high. It is found that only 4.7% are of the opinion that relevance of lack of skilled IT staff impact on implementation of e-education services founds low whereas majority of the respondent are of the opinion that relevance of lack of skilled IT staff impact on implementation of e-education services founds average to high. It is founds that only 1.3% is of the opinion that relevance of internet & computer cost impact on implementation of e-education services founds low whereas majority of the respondent are of the opinion that relevance of internet & computer cost impact on implementation of e-education services founds average to high. The majority 60.1% are of the opinion that relevance of lack of users trust and confidence impact on implementation of e-education services founds low whereas small number of the respondent are of the opinion that relevance of lack of users trust and confidence impact on implementation of e-education services founds average to high. It is observed that 46.9% are of the opinion that relevance of lack of security impact on implementation of e-education services founds low whereas small number of the respondent are of the opinion that relevance of lack of security impact on implementation of e-education services founds average to high. The majority of the respondents are of the opinion that relevance of culture and language conflict impact on implementation of e-education services founds average to high. Small number of the respondents is of the opinion that relevance of poor infrastructure and technologies impact on implementation of e-education services founds average to high. It is found that 18.5% are of the opinion that relevance of lack of top officials commitment and understanding impact on implementation of e-education services founds low whereas small number of the respondent are of the opinion that relevance of Lack of top officials commitment and understanding impact on implementation of e-education services founds average to high. It is observed that 50.8% are of the opinion that relevance of lack of bad system control and management impact on implementation of e-education services founds low whereas remaining respondent are of the opinion that relevance of bad system control and management impact on implementation of e-education services founds average to high. It is observed table that 52.1% are of the opinion that relevance of lack of funding impact on implementation of e-education services founds low whereas small number of the respondent are of the opinion that relevance of lack of funding impact on implementation of e-education services founds average to high. The majority of the respondents are of the opinion that relevance of lack of proper legislation and laws impact on implementation of e-education services founds average to high.

VI. SUGGESTION

Based on result and discussion regarding study, following suggestions are made.

Proper IT training should be provided to the staff about the use of various databases, e-resources, technologies and internet operations which will in turn help them to train the users and to implement e-education system at institute. There is need to implement good technological infrastructure and more funds should be given to e-education. Orientation/awareness programs should be conducted at regular intervals for the use of e-education services and time of internet service increased. List of the different e-educational courses should be publicized by displaying it on library notice board and on institutes' website to increase the use of e-educational courses. To increase the interest and confidence among users regarding the e-educational courses, workshops and webinars should be conducted and popular lectures should be arranged in each and every professional institute.

The IT skilled staff should cooperate with the users and help them in overcoming the technical difficulties faced while taking course in e-education. Proper legislations and laws should be formed in successful implementation of e-education.

VII. CONCLUSIONS

The overall result of the study indicates that the use of e-education services in professional institutes was reasonably high. There is relevance of lack of skilled IT staff impact on implementation of e-education services founds high. There is relevance of internet & computer cost impact on implementation of e-education services founds high. Study shows that relevance of lack of users trust and confidence doesn't impact on implementation of e-education services. There is relevance of lack of security doesn't impact on implementation of e-education services. It is conclude that relevance of culture and language conflict impact on implementation of e-education services founds average to high. According to students view relevance of poor infrastructure and technologies doesn't impact on implementation of e-education services whereas teachers found high relevance. According to students view relevance of lack of top officials commitment and understanding doesn't impact on implementation of e-education services whereas teachers found high relevance. According to students view relevance of bad system control and management doesn't impact on implementation of e-education services whereas teachers found high relevance. Study shows that lack of funding doesn't impact on implementation of e-education services. There is relevance of lack of proper legislation and laws impact on implementation of e-education services founds average to high. Due to these, there is high impact on implementation of e-education at professional institutes in Satara district

VIII. REFERENCES

[1] Hsu, Carol and Backhouse, James, "The Implementation of Online Education on Campus" (2001). *AMCIS 2001 Proceedings*. 33.http://aisel.aisnet.org/amcis2001/33.

[2] Nurul Islam , E-Learning Challenges Faced by Academics in Higher Education: A Literature Review, *Journal of Education and Training Studies Vol. 3, No. 5; September 2015.*

[3] Larry A. Mallak, Challenges in Implementing e-Learning ,Management of Engineering and Technology, 2001. *PICMET '01. Portland International Conference on Volume: 1*.

[4] Kumar, S. (2018). Awareness, benefits and challenges of e-learning among the students of Kurukshetra University Kurukshetra: A study. *International Journal of Information Dissemination and Technology, 8(4), 227-230.*

[5] Al Gamdi, M. A., & Samarji, A. (2016). Perceived barriers towards e-learning by faculty members at a recently established university in Saudi Arabia. *International Journal of Information and Education Technology, 6*(1), 23.

[6] Noesgaard S. S. and Ørngreen R. The Effectiveness of E-Learning: An Explorative and Integrative Review of the Definitions, Methodologies and Factors that Promote e-Learning Effectiveness" *The Electronic Journal of e- Learning Volume 13 Issue 4 2015*, (pp278-290).

[7] Kennedy D Gunawardana, An Empirical Study of potential challenges and Benefits of Implementing E-learning in Sri Lanka,*Proceedings of the Second International Conference on eLearning for Knowledge-Based Society, August 4-7, 2005, Bangkok, Thailand.*

[8] Rose Liang, Online Learning: Trends, Potential and Challenges, *2012. Vol.3, No.8, 1332-1335, Published Online December 2012 in SciRes.*

[9] Catherine W. Cook, Technology And Online Education: Models For Change, *Contemporary Issues In Education Research – Third Quarter 2014 Volume 7, Number 3.*

[10]I.J.Modern**,** Issues of Technical Support for e-Learning Systems in Higher Education, Institutions,*Education and Computer Science, 2012, 2, 38-44 Published Online March 2012 in MECS.*