
Impact of information technology on society: Visakhapatnam in India as a case study

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Abstract

Information communication technology is one of the major yardsticks to measure socio economic development of the country and hence its effective management using the latest technological tools is the prerequisite for any nation. The study was carried out with these main objectives: To examine existing methods and techniques of Information Technology (IT) in India, to assess the impact of IT on different sections of the society, to analyze perceptions of respondents regarding effectiveness of IT on different sections of the Society. The present study is confined to the selected respondents in the society viz., students, employees, business people, professional people (like doctors, engineers, lawyers, teachers and rural people) who are residing in Visakhapatnam in India. In this study some important tools and techniques are used such as percentage, mean, standard deviation and Chi-Square test. On the basis of quota sampling method, about 60 respondents from each section representing 480 in total are interviewed.

Keywords: Information communication technology; ICT, e-conferencing

Introduction

Information is the most valuable asset for any organization or institute. The growth of the internet has greatly influenced the ease and speed with which information is shared. Today's challenge is to make the information accessible. A typical information processing cycle consists of steps namely input, processing, output, storage, retrieval, distribution and communication. Information Technology (IT) is the combination of different fields such as information science, computer technology, and communication technology and management science.

Information is a valuable and costly asset that must be planned, protected, preserved and controlled as other valuable assets such as people, money, machines, facilities etc. A major shift of the power of technologies is to focus on the power of information content. As we reach the threshold of 21st century, managing information involves professional approach to deal with the global dynamic interactive environment with the new policy of liberalization and globalization for the professional in an information-based society (Dudeja, 1999). The world today is in transition from industrial age to information age.

Computer and communication systems combined to be called as Information Technology are critical in the operation of every business today. The IT revolution is making a tremendous impact on the industry and trade by relentless technology innovation, massive growth in computer power worldwide net works and ever - growing electronic factories. The convergence of telecom and computers in networks has further advanced the scope of communication equipment by bringing a wide range of improved products (Pathak, 1998). The relationship between information and socio economic development

was ignored until the 1970s in many developed countries and is still not recognized even today in some of the developing countries. Nonetheless, information is one of the major yardsticks to measure socio economic development of the country and hence its effective management using the latest technological tools is prerequisite for any nation. IT now has the potential to change our working and learning patterns, our business, social relationships, academic research institutions and even our cultural spheres. As a part of IT, telecommunication has become a major business and its hold the key for the growing and emerging service industries for all countries of the world (Usha, 1998). Efficient utilization of all resources is essential to maintain good academic quality with cost effectiveness. ICT provide a means for overcoming historically intractable problems of isolation and lack of access to information and knowledge, crucial impediments to educational and socioeconomic development (Adeyinka Tella & Emmanuel Olusola Adu, 2009).

Truly collaborative knowledge management system using internet is now unfolds as Open Distance Education System (ODES) and virtual universities due to its wide and low cost access without any geographic, distance and time barrier. With internet, ODES can easily ensure quality education for all, with cost effectiveness, at the doorsteps of learners (Killedar, 2001). The use of IT promises improved performance for organizations. The benefits of information technology can usually be measured in terms of enhanced processing speed, transmission rates and access time. The introduction of micro and minicomputers had enabled greater decentralization of information systems. Recent innovations such as Local Area Network (LAN) make possible the linking of task groups and managerial work

Table 1. Perceptions of the respondents regarding impact of information technology descriptive results

Programmes	Students	Employees	Business people	Doctors	Engineers	Lawyers	Teachers	Rural People
E-Learning	0.0193	0.949	0.9109	0.5086	0.6117	0.4628	0.6563	0.2812
E-Conferencing	0.363	0.1404	0.0004	0.0086	0.8696	0.7043	0.2485	0.5086
E-Mail	0.0288	0.0505	0.0767	0.2778	0.0016	0.1632	0.3504	0.0001
E-Service	0.363	0.2752	0.2426	0.7538	1.521	0.1391	0.6563	0.5086
E- Cash	0.888	2.4775	1.0957	4.9846	3.7067	5.1487	4.6223	0.8698
Mobile Phone	0.2293	0.2752	0.3421	0.4653	0.0016	0.1632	0.5592	2.1943
Internet	0.0025	0.1404	0.7971	0.4653	0.0144	0.7574	0.0155	0.0404
Computer Based Training	0.0193	0.2752	0.2426	0.3115	0.0016	0.2792	0.1174	0.0001
Computer based multimedia	0.0001	0.1404	0.0341	1.0471	0.0144	0.4628	0.1174	0.027
Web Based Training	0.0288	0.2752	0.418	0.7538	0.00001	0.7043	0.6563	0.2812
Chi-Square	1.9421	4.999	4.1602	9.5764	6.7426	8.985	7.9996	4.7113

Source : Field survey

processes. These capabilities likely to impact culture, structure and work practices (Rozhan, 2001). The regional dimensions of growth of the Indian economy are assuming increasing relevance in the context of the progressive diffusion of structural reforms at the sub national level growth is getting increasingly assessed in terms of durable improvement in the regional growth profiles in which the interface between public policies for accelerating development and standards of living is the greatest. The information technology sector in India is important not just because of this performance and potential, but because these factors have influenced the policy environment in India. There are other issues raised in the context of Indian regional development viz., fiscal, infrastructure and HRD (Pesai, 2003). Several disabilities can be effectively dealt with using conventional devices, in the last few years scientists and IT engineers have developed special devices for the physically challenged that are much more sophisticated than traditional ones. Many of these devices are dependent on computers and computer technologies (Deepak Halan, 2004).

Objectives of the Study

The study was carried out with the following main objectives:

1. To examine existing methods and techniques of Information Technology in India.
2. To assess the impact of information technology on different sections of the society.

3. To analyze perceptions of respondents regarding effectiveness of information technology on different sections of the Society.

Methodology of the study

The present study is confined to the selected respondents in the society viz., students, employees, business people, professional people (like doctors, engineers, lawyers, teachers and rural people) who are residing in Visakhapatnam. In this study some important tools and techniques are used such as i.e. %age, mean, standard deviation, and Chi-Square Test. On the basis of quota sampling method about 60 respondents from each section representing 480 in total are interviewed.

H0: Opinion of the selected sections on Information technology is equal.

H1: Opinion of the selected sections on Information technology is not equal.

Data analysis and interpretation

The Table 1 depicts the Chi-Square values of eight sections (Ps, Pe, Pb, Pd, Peg, Pl, Pt, and Pr) of the respondents i.e. 1.9421, 4.999, 4.1602, 9.5764, 6.7426, 8.985, 7.9996 and 4.7113 respectively. The critical value of Chi-Square with 9 degrees of freedom and secure a value of 16.92 at 5% level (0.05). The calculated values are (1.9421, 4.999, 4.1602, 9.5764, 6.7426, 8.985, 7.9996 & 4.7113) less than critical value (16.92) i.e. calculated values falls within the acceptance region. Therefore, selected sections of the respondents are given

Table 2. Analysis of the respondents regarding IT descriptive results

Programmes	Students	Employees	Business people	Doctors	Engineers	Lawyers	Teacher	Rural people	Mean	S.D
E-Learning	41	38	36	37	39	37	36	27	36.375	4.1382
E-Conferencing	38	42	42	41	38	36	38	26	37.625	5.1806
E-Mail	43	43	44	45	46	44	45	30	42.5	5.1547
E-Service	38	41	39	36	36	39	36	26	36.375	4.5651
E- Cash	48	55	49	56	57	56	55	35	51.375	7.4246
Mobile Phone	45	48	46	46	46	44	46	38	44.875	2.9970
Internet	44	47	48	46	45	47	42	31	43.75	5.4967
Computer based training	41	48	39	38	46	38	39	30	39.875	5.4886
Computer based multimedia	42	42	41	35	45	37	39	29	38.75	5.0355
Web based training	39	41	38	36	44	36	36	27	37.125	4.9695
Mean	41.9	44.5	42.2	41.6	44.2	41.4	41.2	29.9		
S. D	3.2128	4.9721	4.4171	6.6533	5.8461	6.4325	6.0516	3.9567		

Source: Field Survey

preference to information technology. Hence, the null hypothesis (Ho) has been accepted.

Table 2 uses standard deviation approach to derive the hypothesis through columns. The standard deviation is a statistic that tells us how the impacts of information technology on selected sections of the society are clustered around the mean in a set of data. The standard deviation does not vary too much for any of these eight sections, which means no variability among the respondents from the respective society. The standard deviation as calculated for students section stood at 3.2128 which is lowest among the other sections. Whereas Rural people at 3.9567 and thereafter, Business people at 4.4171, Employees at 4.9721, Engineers at 5.8461, Teachers at 6.0561, Lawyers at 6.4325, and Doctors at 6.6533. This shows that students have the highest impact of IT and also have used standard deviation approach to derive the hypothesis through rows. The standard deviation is a statistic that tells us how the impact of selected sections of the respondents on IT programmes (e-learning, e-conferencing, e-service, e-mail, e-cash, mobile phone, computer based training, computer based multimedia and web based training) are clustered around the mean in a set of data. Here when the e-learning, e- conferencing, e-mail, e-service, e-cash, mobile phone, internet, computer based training, computer based multimedia and web based training gets the standard deviation as small. The standard deviation does not vary too much for any of these ten IT programmes. The standard deviation as calculated for Mobile Phone stood at 2.9970 which is lowest among the other IT programmes whereas e-learning at 4.1382 and thereafter, e-service at 4.5651, web based training at 4.9695, computer based multimedia at 5.0355, e-mail at 5.1547, e-conferencing at 5.1806, computer based training at 5.4886, Internet at 5.4967 and E-cash at 7.4246, This shows that mobile phone has the highest impact on people in the society. Hence, the null hypothesis (Ho) has been accepted.

Opinion of the respondents regarding the impact of e-learning

Out of the respondents of students category 50% gave their response as good about the programme and 33% said that it was excellent and the rest stated that it was average and poor. From the category of employees 18% said that the e-learning method was excellent and 64% stated that it was good. About 8% said it was average and poor response about the method of e-learning programme. The respondents from business section expressed that the E-learning programme was good (62%) because it helps them to adopt new techniques about marketing, distribution etc. 13% of them stated that the programme was excellent as they depend on it to the maximum extent. But 25% responded that the programme was average and low because they are not depending on it for their total requirements. Out of the

Table 3. Opinion of the respondents regarding the impact of e-learning

Respondents	Method				Total
	Excellent	Good	Average	Poor	
Students	20(33)	30(50)	6(10)	4(7)	60(100)
Employees	11(18)	38(64)	5(8)	6(10)	60(100)
Business people	8(13)	37(62)	9(15)	6(10)	60(100)
Doctors	9(15)	36(60)	10(17)	5(8)	60(100)
Engineers	7(12)	37(62)	14(23)	2(3)	60(100)
Lawyers	6(10)	35(58)	12(20)	7(12)	60(100)
Teachers	18(30)	33(55)	6(10)	3(5)	60(100)
Rural people	9(15)	39(65)	7(12)	5(8)	60(100)
Total	88	285	69	38	480

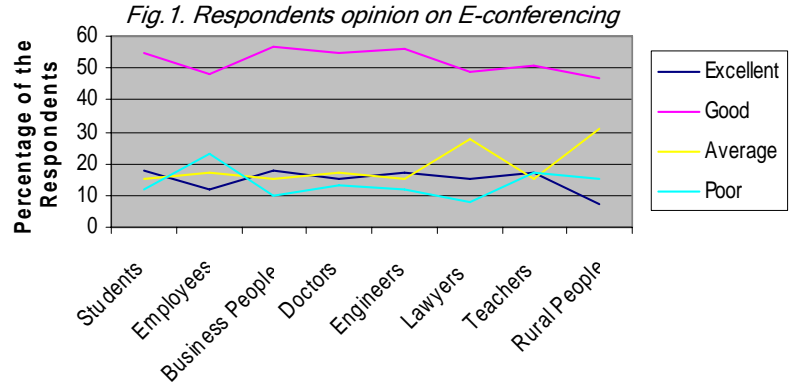
Source: Field study

respondents of the doctors section 15% expressed that the programme was excellent and 60% opined that the programme was good. Seventeen % stated that the method of the programme was average as they used this method very rarely. But 8% responded that the method of the programme was poor. Coming to engineers section 12% expressed that the method of the programme was excellent, 62% stated that the method was good and 23% opined that the method of the same was average. But only 3% expressed that the method was poor. From the lawyers section 10% said that the method was excellent which helps them to know recent amendments, recent judgments in the field of law. 58% expressed good about the programme and 20% said that the programme was average. 12% opined that the method was poor. Teachers responded (30%) next highest to students about the method and said that the method of the programme was excellent, as it provides necessary and latest information about their field of study, 55% of the teachers felt that the method of the programme was good as it suits their requirements, 10% said that the method was average as they use it very rarely and only 5% said that it was very poor as they are not interested in E-learning programme. 15% of the rural people expressed their opinion as excellent about the method of E-learning programme as they used this programme to the maximum. 65% stated that the method was good as it provides necessary information about the global scenario and it educates them in all aspects. 12% of respondents felt that the method was average, as they are not acquainted with all the programmes and the use, this program on our average. 8 % expressed that the method of the programme was poor because of power failure, lack of experienced persons in the centers and look of center in few villages (Table 3).

Respondents' opinion on e-conferencing

Fig. 1 reveals the opinion of the respondents on the E-conferencing programme. The respondents of the students (55%) stated that the method was good, 18 % opined that it was excellent. But 15% of them felt that it was average and 12% of the students felt that it was poor. Coming to the employees section 12% of the employees

stated that the method was excellent, 48% opined that the method was good, 17% felt that it was average method and 12% expressed that it was poor method. From the Business section 57% stated that the method was good, 18% expressed that it was excellent because, it provides more configuration to the business people. But 15% said that it was average and 10% said that it was poor response, as it was not cheaper cost. Out of the doctors 55% of them felt that the method was good, 15% said that it was excellent, 17% of the doctors opined that it was average and 13% said it was poor. Among the engineers 17% opined that the method was excellent, 56% of the said people are expressed it is a good method because it helps in the engineering fields for improve the skills. About 15% of them felt that it was average and 12% said that it was poor. From the lawyer section 49% of the lawyers stated that it was good method, 15% said that it was excellent. But 28% of the lawyers felt that the programme was average and 8% said that it was poor. In the section of teachers 51% stated that the programme was good, 17% felt that this program was excellent. While 17% of them felt this method was poor and 15 % said it was average. 47% of the rural people opined that the programme was good, 7% felt that it was excellent, 31 % stated that the method was average and remaining of them felt that it was excellent, 31% stated that the method was Average and remaining of them felt that it was poor (Fig. 1).



Selected Sections in the Society

average and 10% of them felt that the programme was poor. Maximum extent of the lawyers (65%) indicated their opinion on the method of email programme was good, only 12% of the respondents expressed that the programme was excellent. But rest of the respondent are opined that it was average and poor in terms of the email programme. Teachers (55%) expressed that the method was good, 8% said that it was excellent, 20% said that it was average and 17% said that the programme was poor about the method of e-mail programme. Rural people (63%) are opined that it was good method, but 23% of them felt that the programme was average; rest of them felt that the method was excellent and poor (Table 4).

Respondents opinion on E-Services

Regarding the opinion of the respondents on E-services programme in the student section 60% said that the method was good. 15% of the students stated that it was excellent. About 15% of them felt that the programme was average and rest of the respondents are expressed that it was poor method. From the employees section, 67% said that it was good method, 13% felt that the programme was excellent. Only 12% of the employees indicated their opinion on this programme was average and 8% said that it was poor. Out of the business section majority of the respondents (68%) are felt that the programme was good method and 20% of the business people opined that it was excellent. However, 7% of the business people and 5% of the business people indicated the method to be average and poor respectively. The

Opinion of the respondents on E-mail

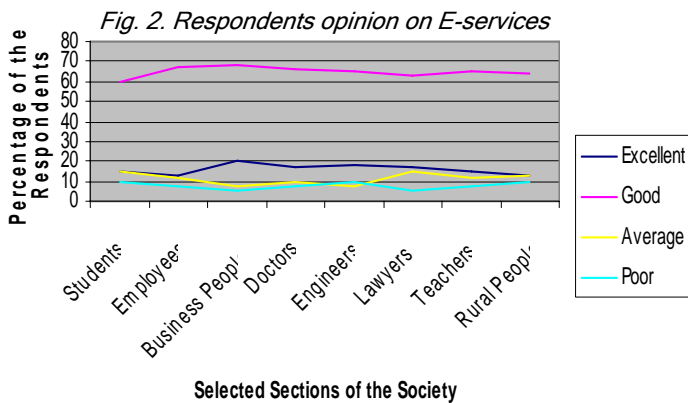
Regarding the method of e-mail. Out of the student section, 80% of the students have expressed that the method was good and only 7% said that it was excellent. But rests of the students are opined that the program was average and poor. From the employees section, 60% of the respondents are opined that it was good method and 15% of the employees are stated that the method was excellent, because, it provides access to the information from anywhere in the world. But 17% said that it was average and rests of them felt that the method was poor. Business people (62%) and 20% said that the method was good and excellent respectively. But 13% of the business people are opined said programme was average and 5% of the respondents are stated that the programme was poor. The doctors (60%) stated that the programme was good and 13% of them are felt that it was excellent because, it is estimated that the data traffic through the internet would out strip the voice traffic in not-too-distant a future. But 15% of the doctors indicated that the programme was average and 12% of them one felt that it was poor. As can be seen from the table, the engineers (63%) are stated that the programme was good and 10% of them are felt that the method was excellent because, it can enables stand out in customer service, competitions. But 17% of the engineers are opined that it was

Table 4. Opinion of the respondents on E-mail

Respondents	Method				Total
	Excellent	Good	Average	Poor	
Students	4(7)	48(80)	7(12)	2(1)	60(100)
Employees	9(15)	36(60)	10(17)	5(8)	60(100)
Business people	12(20)	37(62)	8(13)	3(5)	60(100)
Doctors	8(13)	36(60)	9(15)	7(12)	60(100)
Engineers	6(10)	38(63)	10(17)	6(10)	60(100)
Lawyers	7(12)	39(65)	9(15)	5(8)	60(100)
Teachers	5(8)	33(55)	12(20)	10(17)	60(100)
Rural people	4(7)	38(63)	14(23)	4(7)	60(100)
Total	55	305	79	41	480

Source: Field study

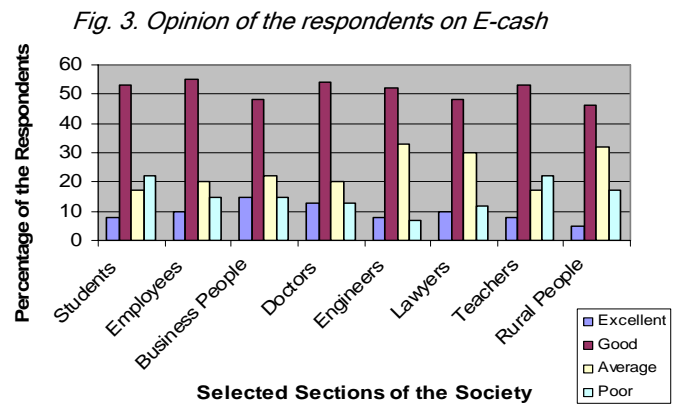
doctors (66%) opined that it was good method, 17% stated that the programme was excellent, 10% of them felt that it was average and 7% indicated the programme was poor. The respondents of the engineers (65%) stated that the programme was good method and 18% of the respondents opined that it was excellent. Rest of the respondents are expressed that the programme was average and poor. From the lawyers section, respondents (63%) opined that the video conferencing programme was good and 17% of them felt it was excellent method. About 15% of the lawyers indicated their opinion on this programme was average and only 5% said that it was poor. The teachers (65%) opined that the programme was good and 15 % said that the programme was excellent method. 12% of them felt that it was average and 8% indicated their response was poor. Rural people (64%) are indicated that their opinion about the programme was good and 13% said that it was excellent and rests of the respondents are felt that it was average and poor (Fig. 2).



Opinion of the respondents on E-Cash

In view of the students section, 53% of the students expressed that the method of the e-cash programme was good and 8% stated that the method was excellent. But 17% opined that it was average and 22% observed that the method was poor. Out of the respondents of employee section 55% gave their response as good about the programme and 10% said that it was excellent. But 20% of the employees are indicating their opinion as average about the programme and rest stated that it was poor. From the section of business people, 15% said that the teleconferencing method was excellent and 48% stated that it was good. About 22% of the business people opined that the programme was average and 15% said it was poor. An inquiry in to the doctors (54%) is indicated that the programme was good, 13% said that it was excellent. While 20% of the respondents felt that it was average and 13% said that the programme was poor response. 52% of the engineers felt that the method was good and 8% said that it was excellent, but one third of the respondents felt that it was average and only 7% said that it was poor. As can be seen from the lawyer section

majority (48%) of them felt that the method was good and 10% said that it was excellent method. About 30% stated that the method was average and 12% of the respondents expressed that it was poor. As can be seen from the data of teacher section. 53% of the teacher respondents opined that the programme was good method only 8% said that it was excellent. Average opinion was given by the 17% of the respondents and 22% stated that it was poor. From rural people section, 46% said that the programme was good, only 5% said that the method was excellent, 32% said that it was average and 17% of the rural people opined that the method was poor (Fig. 3).



Response of the respondents on Internet

The Table 5 in view of the above programme, the respondents of the students (57%) are expressed that the method of Internet was good, 15% said that the method was excellent. But only 8% of them are felt it was average and 10% of them felt that it was poor method. The respondents of the employees (20%) felt that the programme was excellent method. Majority of the employees (60%) said that it was good. About 12% of the Respondents indicated that the method was average. While 8% said it was poor. From the business section 65% felt that the method was good and 27% said that it was excellent method because, their operation were carried on through the internet, they used it in the marketing, sales and production. But rest of them felt that it was average and poor. Doctors (57%) opined that the programme was good because they used it in the medicine field for immediate treatment to the patients. 20% of them felt that the method was excellent. About 13% said that it was average and 10% stated that it was poor. As can be seen from the data the engineers (61%) stated that it was good and 22% said that the programme was excellent because, it offers access to date, graphics, sound, software, text and people through a variety of services and tools for communication and date exchange, i.e. remote login, file transfer and hyper text etc. But rest of them felt that it was average and poor. About 59% of the lawyers expressed that it was good method and 18%

of them felt that the programme was excellent. About 13% of the lawyers opined that the method was average. While 10% stated that it was poor. Out of the teacher's section maximum (57%) of them felt that it was good and 20% said that it was excellent. But rest of the teachers opined that the programme was average and poor. The rural people (55%) are opined this method was good and 15% of them felt that it was excellent. About 18% of the rural people indicated that it was average and 12% of the respondents felt that the programme was poor (Table 5).

Table 5. Response of the respondents on internet

Respondents	Method				
	Excellent	Good	Average	Poor	Total
Students	15(25)	34(57)	5(8)	6(10)	60(100)
Employees	12(20)	36(60)	7(12)	5(8)	60(100)
Business people	16(27)	39(65)	3(5)	2(3)	60(100)
Doctors	12(20)	34(57)	8(13)	6(10)	60(100)
Engineers	13(22)	37(61)	6(10)	4(7)	60(100)
Lawyers	11(18)	35(59)	8(13)	6(10)	60(100)
Teachers	12(20)	34(57)	6(10)	8(13)	60(100)
Rural people	9(15)	33(55)	11(18)	7(12)	60(100)
Total	100	282	54	44	480

An inquiry into the respondent's opinion on mobile phone
Out of the student section, 65% of the students opined that the method was good and 18% of them are felt that it was excellent. Because it is highly used by the students at present only 17% of the students expressed that it was average and poor responded hereby about the mobile phone. In the employee section majority of the employees (63%) said that it was good method, 17% stated that the method was excellent. But 12% of the respondents opined that it was average and 8% of them felt that it was poor. From the business people section, 65% said that it was good and 22% said that the programme was

Table 6. Opinion of the respondents on mobile phone

Respondents	Method				
	Excellent	Good	Average	Poor	Total
Students	11(18)	39(65)	6(10)	4(7)	60(100)
Employees	10(17)	38(63)	7(12)	5(8)	60(100)
Business people	13(22)	39(65)	5(8)	3(5)	60(100)
Doctors	10(17)	35(58)	8(13)	7(12)	60(100)
Engineers	9(15)	37(62)	9(15)	5(8)	60(100)
Lawyers	8(13)	39(65)	7(12)	6(10)	60(100)
Teachers	10(17)	37(61)	9(15)	4(7)	60(100)
Rural people	7(12)	36(60)	12(20)	5(8)	60(100)
Total	78	300	63	39	480

excellent and rest of the respondents felt average and poor. Out of the doctor section, 58% of the doctors expressed that the method was good, 17% said that the programme was excellent, one fourth % of the doctors opined that it was average and poor. The Engineers response (62%) about the method of mobile phone was

good. 15 % stated that the mobile phone was excellent method, but 15% of the engineers are expressed said it was average and only 8% said it was poor method. Regarding lawyer section 65% of them felt this method was good, 13% of the respondents expressed that the mobile phone was excellent. But rests of the lawyers are opined that it was average and gave a poor response about the mobile phone. 17% of the teachers expressed that the programme was excellent and 61% said that it was good method. But 15% said it was average and 7% said that the programme was poor because of the misusage of mobile phones by the students. From the rural people section, majority of then (60%) felt that the programme was good method and 12% said it was excellent method. But rests of them felt average and poor (Table 6).

Perceptions of the respondents on computer based training

That in the opinion of the students on computer Based training method, as many as 52% stated that the methods was good and 13% of the students felt that the programme was excellent method. But 23% and 12% of the respondents opined that the method of the programme was average and poor respectively. From the employees section 55% expressed that the programme was excellent and 12% opined that the programme was good. About 18% of them stated that the method of the programme was average as they used this method very rarely. But 15% responded that the method of the programme was poor. Coming to business section 48 % of them felt that the method of the programme was good, 17% stated that the method excellent and 20% of the respondents opined that the method of the same was average. But only 15% of the respondents are expressed that the method was poor. From the doctor section 57% said that the method was good, because it helps them to know recent treatments in the field of medicine, 18% stated that the method was excellent and 12% opined that the method of the same was average. But 13% expressed that the method was poor. Engineers (47%) said that the method of the programme was good because it provides necessary and latest information about their field of engineering, 15% of the engineers felt that the method was excellent, 26% said that it was poor. 53% of the lawyers opined that the programme was good and 13% expressed that the method was excellent remaining of the lawyers said that the method was average and poor. From the teachers section 15% of the teachers stated that the programme was excellent and 52% opined that the method was good, 25% of the teachers expressed it was average method and 8% said that the method was poor. Rural people (48%) said that the method was good and 10% of them are felt that it was excellent. But many (42%) expressed that it was average and poor (Table 7).

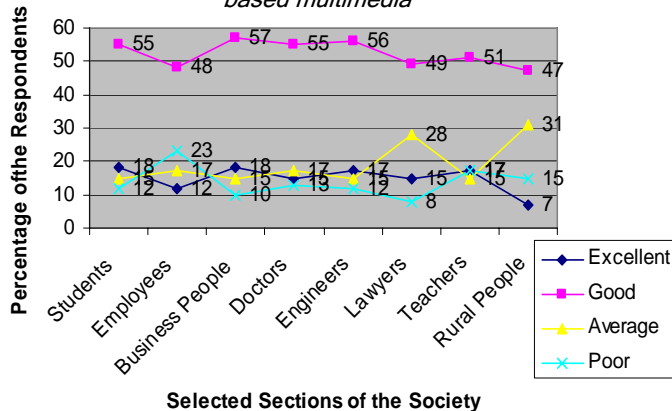
Table 7. Perceptions of the respondents on computer based training

Respondents	Method				Total
	Excellent	Good	Average	Poor	
Students	8(13)	31(52)	14(23)	7(12)	60(100)
Employees	7(12)	33(55)	11(18)	9(15)	60(100)
Business people	10(17)	29(48)	12(20)	9(15)	60(100)
Doctors	11(18)	34(57)	7(12)	8(13)	60(100)
Engineers	9(15)	28(47)	16(26)	7(12)	60(100)
Lawyers	8(13)	32(53)	14(24)	6(10)	60(100)
Teachers	9(15)	31(52)	15(25)	5(8)	60(100)
Rural people	6(10)	29(48)	21(35)	4(7)	60(100)
Total	68	247	110	55	480

Opinion of the respondents on computer based multimedia

Fig. 4 reveals the opinion of the respondents on the Computer Based Multimedia programme. The respondents of the students (55%) stated that the method was good, 18% opined that it was excellent. But 15% of them felt that it was average and 12% of the students felt that it was poor. Coming to the employees section 12% of the employees stated that the method was excellent, 48 % opined that the method was good, 17 % felt that it was average method and 12% expressed that it was poor method. From the Business section 57% stated that the method was good, 18% expressed that it was excellent because, it provides more configuration to the business people. But 15% said that it was average and 10% said that it was poor response, as it was not cheaper cost. Out of the Doctors 55% of them felt that the method was good, 15% said that it was excellent, 17% of the doctors opined that it was average and 13% said it was poor. Among the engineers 17% opined that the method was excellent, 56% of the said people are expressed it is a good method because it helps in the engineering fields for improve the skills. About 15% of them felt that it was average and 12% said that it was poor. From the lawyer section 49% of the lawyers stated that it was good method, 15% said that it was excellent. But 28% of the lawyers felt that the programme was average and 8%

Fig. 4. Opinion of the respondents on computer based multimedia



said that it was poor. In the section of teachers 51% stated that the programme was good, 17% felt that this program was excellent. While 17% of them felt this method was poor and 15% said it was average. 47% of the rural people opined that the programme was good, 7% felt that it was excellent, 31% stated that the method was average and remaining of them felt that it was excellent, 31% stated that the method was Average and remaining of them felt that it was poor (Fig. 4).

Response of the respondents on web based training

Regarding the method of Web based training Out of the student section. 80% of the students have expressed that the method was good and only 7% said that it was excellent. But rests of the students are opined that the program was average and poor. From the employees section, 60% of the respondents are opined that it was good method and 15% of the employees are

Table 8. Response of the respondents on web based training

Respondents	Method				Total
	Excellent	Good	Average	Poor	
Students	4(7)	48(80)	7(12)	2(1)	60(100)
Employees	9(15)	36(60)	10(17)	5(8)	60(100)
Business people	12(20)	37(62)	8(13)	3(5)	60(100)
Doctors	8(13)	36(60)	9(15)	7(12)	60(100)
Engineers	6(10)	38(63)	10(17)	6(10)	60(100)
Lawyers	7(12)	39(65)	9(15)	5(8)	60(100)
Teachers	5(8)	33(55)	12(20)	10(17)	60(100)
Rural people	4(7)	38(63)	14(23)	4(7)	60(100)
Total	55	305	79	41	480

stated that the method was excellent, because, it provides access to the information from anywhere in the world. But 17% said that it was average and rests of them felt that the method was poor. Business people (62%) and 20% said that the method was good and excellent respectively. But 13% of the business people are opined said programme was average and 5% of the respondents are stated that the programme was poor. The doctors (60%) stated that the programme was good and 13% of them are felt that it was excellent because, it is estimated that the data traffic through the internet would out strip the voice traffic in not-too-distant a future. But 15% of the doctors indicated that the programme was average and 12% of them one felt that it was poor.

As can be seen from the Table 8, the engineers (63%) are stated that the programme was good and 10% of them are felt that the method was excellent because, it can enables stand out in customer service, competitions. But 17% of the engineers are opined that it was average and 10% of them felt that the programme was poor. Maximum extent of the lawyers (65%) indicated their opinion on the method of email programme was good, only 12% of the respondents expressed that the

programme was excellent. But rest of the respondent are opined that it was average and poor in terms of the email programme. Teachers (55%) expressed that the method was good, 8% said that it was excellent, 20% said that it was average and 17% said that the programme was poor about the method of e-mail programme. Rural people (63%) are opined that it was good method, but 23% of them felt that the programme was average; rest of them felt that the method was excellent and poor (Table 8).

Suggestions

- E-learning ensures quality education but cost should be reduced. E-learning needs self-discipline. It is suggested that even though it encourages learner centric personalized education system, to clarify the doubts of the students, teachers must be available. E-learning lacks human interaction. It is suggested that the human interaction must be provided for E-learning also.
- A number of information technology programmes have been introduced since 1985 in India under the Prime Minister ship of Late Sri Rajiv Gandhi. It is observed that wide variations prevail in various states for development of information technology. It is suggested that it is to be reduced the imbalances between the state variations about information technology development.
- The computer operators are suffering with backbone pain due to the effect of the radiation on legs and other human parts. There is a need for precautions to the computer operators. It is suggested that the computer operator chairs should be adjustable in high and should have lower-back support and armrests, computers desks should allow adjusting the height of the computers keyboard.
- A lot of pressure is on human eyes at the time of computer operating. Therefore, there is a need for introducing some healthy measures to the computer operators. It is suggested to avoid staring at the computer screen for long periods the position of the monitor between 2 and 2½ feet from operator eyes should be made and sure no bright lights reflect off operator screen.
- The computer-based multimedia requires more technical support from the software personnel. It is suggested that to develop the software in perspective to avoid from the technical support of personnel. Computer based training does not permit direct personal reinforcement, and hence the motivational effects of training are forgone. It is suggested that the software to permit direct personal reinforcement and to avoid from the forgone of motivational effects should be developed.
- The computer-based training can prove costly, as expensive hardware and software are required. It is suggested that should be reduced the cost of

manufactured the computer hardware tools should be reduced produce the low expensive software programmes. IT industries should also produce the low expensive software programmes.

Conclusion

At present, all business establishments, industrial organizations, educational institutions, professional bodies and different enterprises are dynamic. Incent, liberalization, privatization, globalization and changes in the technology made the organizations /institutions/ enterprises further dynamic. Information technology is a recent concept and it includes a number of technology programmes, which are well accepted and adopted by the mentioned organizations / institutions for developing human resources.

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