

## THE NEEDS, SKILLS AND AVAILABILITY OF INFORMATION TECHNOLOGY IN MANAGEMENT OF TEACHING DEPARTMENTS AT UNIVERSITY OF SARGODHA, PAKISTAN: AN INVESTIGATIVE STUDY

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### ABSTRACT

*The aim of the study was to investigate the needs, skills and availability of information technology in management of teaching departments of University of Sargodha. The objective of the study were; to investigate the availability of information technology in teaching departments of University of Sargodha, to investigate the level of current use of IT in teaching departments of the University, to assess the needs, skills and training required by teaching departments. The rational of the study were; our study will analyze the needs and facilities of information technology in management of teaching departments, Our study also analyze the core –competencies which the management of teaching departments has, the study will also analyze the problems about information technology in management of teaching departments, it also focuses on the areas that required training in management of teaching departments of University of Sargodha. The Research Questions of the study were formulated How many computers were available for management of teaching department? How many departments have internet connectivity? Was there any facility of digital library in teaching departments? How many faculties were trained for use of information technology? How many persons have a diploma or degree in computer? What was the level of expertise in software utilization? Which type of software used in research, administration and management?*

*The research design employed in the present study was the social survey out of accessible population the head of 26 departments were selected purposively. So the head of the department were selected as a sample of the study to investigate the needs and facilities in management of teaching departments. The study is delimited to the management of teaching departments of the University of Sargodha. Data collected through questionnaire and was analyzed item wise. Four type items were analyzed by calculating averages and percentages and interpreted in tables.*

*Than it was concluded that faculty of arts, social sciences and law has less availability of material resources therefore has greater requirements. Trained staff of arts Departments without diploma was found to be less than staff with diploma. IT facilities like (Internet, website, video conferencing, digital library, skilled persons etc.) in arts Departments was found to be sufficient than requirements Faculty of science and Technology. It was concluded that availability of material resources was found to be less than requirements. Faculty of Management and Administrative science. Availability of material resources in Management and Administrative science was found to be sufficient but requirements was also there. Faculty of Management and Administrative science. Availability of material resources in Management and Administrative science was found to be sufficient but requirements was also there. Trained staff with IT diploma in this faculty was greater than without IT diploma. Availability of IT facilities was greater than requirements in this faculty.*

**Keywords:** Needs, skills, Information technology, teaching departments, faculty

## INTRODUCTION

Technology can be defined as “human innovation and action that involve the generation of knowledge and processes to develop systems that solve problem and intend human capabilities

Information Technology as defined by the Information Technology association of America” is the study design, development, implementation, support or Management of computer-based information system. Particularly software application and computer hardware”

It would be impossible to ignore the dramatic increase in the use of computer in university department over the last five year almost all clerical jobs now really on a computer to produce written documentation, paper statistics, record student details and a million other tasks besides. The impact of computers on technical jobs can be equality marked and there is no doubt that technical staff feel and increasing requirements to become computer literature .There are doubtless many administrative procedure which could be improved .Through the increased use of computers information technology is challenging in traditional method of communication many institution now make this prospects achievable on the web and distance learners are encouraged to apply for detail of courses via the internet .

Despite the obvious importance of IT, universities continuous to underestimate the training requirements of elude staff.

IT deal with the use of electronic computer and computer software to convert, store, protect, process, transmit and retrieve information, securely. It would be impossible to ignore the dramatic increase in the use of computer in university department over the last five year almost all clerical jobs now really on a computer to produce written documentation, paper statistics, record student details and a million other tasks besides. The impact of computers on technical jobs can be equality marked and there is no doubt that technical staff feel and increasing requirements to become computer literature .There are doubtless many administrative procedure which could be improved .Through the increased use of computers information technology is challenging in traditional method of communication many institution now make this prospects achievable on the web and distance learners are encouraged to apply for detail of courses via the internet .

Despite the obvious importance of IT, universities continuous to underestimate the training requirements of elude staff.

In the past technology was in the hands of only a” few alerts” the lone computer lab teacher or the one specialist who knew how to program the “mysterious” augmentative communicative device used by a student with communication limitation. Today technology is”user friendly” and everywhere. Educator are joining the ranks of adults and children who interact throughout the day with their laptop computer for desktop publishing data, management, and game, playing and instantly communicating and socializing via-mail. (Udvari-solner, and Thosand1996)

This revolutionized medicine, communication, engineering, education industry etc including all walks of life and made the world a global village. The cost of doing business drastically reduced where as the speed accuracy and targeting increased many folds.

Like other services IT also enable education sector to enhance its effectiveness and efficiency. The IT based solutions made research analysis much easier and real time access to data resulted in the better identification of problems in social sciences. The enterprise resource planning software resulted in the management of student records, libraries campus

resources and admission campaigns efficient. The teaching aids and philosophy also embarked upon new heights with online troubleshooting and technical back stopping. .

In the new vision of university education in Pakistan IT was become integral parts. It provides basic skills support, information sources, individual student creativity, manage performance records and provide student great control over their own learning.

The importance of computerization and information technology enabled system is to provide the university administration with a decision support responsiveness, credibility and worthiness in the management discipline. It also improves the authority as well as promoting accountability through system generated reports and real time access.

The multiple fact approach of university management can be strapped in at Sargodha University's management paradigms through the development of university website linked through ERP to put admission and student's records related information on the web accessible through net. The intimacy in this regard can achieve through web enabled payment system of fees and other charges.

These all things are the pre requisites for the efficient functioning of university as per the international standards. This can be achieved through office automation and establishing of local areas network for linking the various department and offices. Thus can be further expanded through the front and back and oracle database. The IT culture will also improve the monitoring of all the ongoing and new project/activities where as supplementing all the intrinsic and extrinsic factors. This turn will improve the accountability which will improve the accountability and effectiveness of the staff management, academic, and research staff.

## STATEMENT OF THE PROBLEMS

The aim of the study is to investigate the needs, skills and availability of information technology in management of teaching departments of University of Sargodha.

The objectives of the study were;

1. To investigate the availability of information technology in teaching departments of University of Sargodha.
2. To investigate the level of current use of IT in teaching departments of the University.
3. To assess the needs, skills and training required by teaching departments.

The rational of the study were here under;

- i. Our study will analyze the needs and facilities of information technology in management of teaching departments.
- ii. Our study also analyzes the core –competencies which the management of teaching departments has.
- iii. The study will also analyze the problems about information technology in management of teaching departments.
- iv. It also focuses on the areas that required training in management of teaching departments of University of Sargodha.

The Research Questions of the study were formulated;

- a. How many computers are available for management of teaching department?
- b. How many departments have internet connectivity?
- c. Is there any facility of digital library in teaching departments?

- d. How many faculties are trained for use of information technology?
- e. How many persons have a diploma or degree in computer?
- f. What is the level of expertise in software utilization?
- g. Which type of software used in research, administration and management?

**RESEARCH METHODOLOGY**

The research design employed in the present study was the social survey. The basic idea behind the survey methodology is to measure variables by asking people questions and then to examine relationships among the variables. Surveys attempt to capture attitude or patterns of behavior. The present survey used the cross-sectional design, which asks questions of students at one point in time. Out of accessible population the head of 26 departments were selected purposively. So the head of the department were selected as a sample of the study to investigate the needs and facilities in management of teaching departments.

A questionnaire was used to collect data in this study. This questionnaire was used as a source to find the needs and facilities of information technology in managements of teaching departments. This questionnaire in four parts.

**First Part**

*1. Solved*

What type of computer available in the department?

- a. P-II
- b. P-III
- c. P-IV
- c. Laptop

**Part Two**

*2. Solved*

Is Internet facility available in the department?

Yes	No

If no do you require

**Part Third**

**Table**

Name of section	Total No.	Total No. of staff having IT Skill	Total No. of training staff having IT diploma

**Fourth Part**

Open-ended question

The study is delimited to the management of teaching departments of the University of Sargodha. Data were collected in quantitative forms through questionnaire which administered by the researchers personally. Questionnaire was distributed to the head of the

teaching departments and after one week questionnaire was collected back for analysis of the data.

Data collected through questionnaire and was analyzed item wise. Four type items were analyzed by calculating averages and percentages and interpreted in tables.

## RESULTS

**Table 1. Respondent Work Experience (Q No. 1)**

<i>Department</i>	<i>&lt;1 YEAR</i>	<i>1-3 YEAR</i>	<i>4-6 YEAR</i>	<i>6&gt; YEAR</i>
EDU	0	0	0	1
IT	0	1	0	0
I. STUDY	0	0	0	1
E. SCIENCE	0	0	0	1
STATE	0	0	0	1
BIO	0	0	1	0
ENG	1	0	0	0
F. ART	0	1	0	0
F. TECK	0	0	0	1
S. WORK	0	0	0	1
LAW	0	0	1	0
CHE	0	0	0	1
PSY	0	1	0	0
ECO	0	0	1	0
C. STUDY	0	0	0	1
IR	0	0	1	0
B. STUDY	0	1	0	0
URDU	0	0	0	1
HIST	0	0	0	1
MATH	0	0	0	1
MEDICAL	0	0	0	1
PHARMACY	0	0	0	1
O. LANG	0	1	0	0
A CULTURE	0	0	0	1
PHY	0	0	0	1
H. F EDU	0	0	0	1
AVG	0.03846	0.19231	0.15385	0.61538
%age	3.846	19.23	15.384	61.538

Table 1 reflects that, less than one year work experience of faculty members of the departments of university of Sargodha was found to be 0.038 (3.84%), while work experience from 1-3,4-6 and more than 6 years was found to be 0.9231 (19.23%), 0.1538 (15.38%) and 0.6153 (61.53%), respectively.

**Table 2. What Types of Computers is available in the Department? (Q No.2)**

<i>Department</i>	<i>P2</i>	<i>P3</i>	<i>P4</i>	<i>LAPTOP</i>
EDU	0	0	1	0
IT	0	0	1	0
I. STUDY	0	1	0	0
E. SCIENCE	0	0	1	0
STATE	0	0	1	0
BIO	0	0	1	0
ENG	0	0	1	0
F. ART	0	1	0	0
F. TECK	0	0	1	0
S. WORK	0	0	1	0
LAW	1	0	0	0
CHE	0	0	1	0
PSY	0	0	1	0
ECO	0	0	1	1
C. STUDY	0	0	1	0
IR	0	0	1	0
B. STUDY	0	0	1	1
URDU	0	1	0	0
HIST	0	0	1	0
MATH	0	0	1	0
MEDICAL	0	0	0	0
PHARMACY	0	0	1	0
O. LANG	0	0	1	0
A CULTURE	0	0	1	0
PHY	0	0	1	0
H. F EDU	0	1	0	0
AVG	0.03846	0.15385	0.76923	0.07692
%age	3.8462	15.3846	76.9231	7.6923

Table 2 reflects that Pentium 2 computers used by faculty members of the departments of university of Sargodha was found to be 0.03846 (3.84%), while p3,p4 and laptop facilities was found to be 0.1538 (15.38%), 0.7692 (76.92%) and 0.0769 (7.69%) respectively.

**Table 3. What Types of Software is available for Managing the Work? (Q No.3)**

<i>Department</i>	<i>Microsoft Office</i>	<i>Winrar</i>	<i>Adobe Reader</i>	<i>Adobe Writer</i>	<i>Other</i>
EDU	1	1	1	1	0
IT	1	1	1	1	0
I. STUDY	1	0	0	0	0
E. SCIENCE	1	0	0	0	0
STATE	1	0	0	0	0
BIO	1	0	1	0	0
ENG	1	0	0	0	0
F.ART	1	0	0	0	0
F. TECK	1	0	0	0	0
S. WORK	1	0	0	0	0
LAW	1	0	1	0	0
CHE	1	0	1	1	0
PSY	1	0	0	0	0
ECO	1	1	1	1	1
C. STUDY	1	0	0	0	0
IR	1	0	1	0	0
B.STUDY	1	0	1	0	0
URDU	1	0	0	0	0
HIST	1	0	0	0	0
MATH	1	0	1	0	0
MEDICAL	0	0	0	0	0
PHARMACY	1	0	1	0	0
O. LANG	1	0	1	0	0
A CULTURE	1	0	0	0	0
PHY	1	0	1	1	0
H. F EDU	1	0	0	0	0
AVG	0.96154	0.11538	0.46154	0.19231	0.03846
%age	96.15	11.53	46.15	19.23	3.84

Table 3 reflects that 0.9615(96.15%) faculty members of the departments of university of Sargodha used MS software, while used of winrar , Adobe reader ,Adobe writer and other was found to be 0.1153(11.53%), 0.4615(46.15%),0.1923 (19.23%) and 0.0384(3.84%) respectively.

**Table 4. For What Purpose/ Purposes Computers are Used? (Q No. 4)**

<i>Department</i>	<i>Admission Record</i>	<i>Net Searches</i>	<i>Lecture Preparation</i>	<i>General Use</i>
EDU	1	1	1	1
IT	1	1	1	1
I. STUDY	0	0	0	1
E.SCIENCE	0	0	1	0
STATE	0	0	0	1
BIO	0	1	1	1
ENG	0	1	0	0
F. ART	0	0	1	0
F. TECK	1	1	1	0
S. WORK	0	0	0	1
LAW	1	1	1	0
CHE	1	1	1	1
PSY	1	1	1	0
ECO	1	1	1	0
C. STUDY	1	1	1	1
IR	0	0	0	1
B. STUDY	1	1	1	1
URDU	0	1	0	1
HIST	1	0	0	0
MATH	0	1	0	1
MEDICAL	0	0	0	0
PHARMACY	1	1	1	1
O. LANG	1	0	0	0
A CULTURE	0	1	1	1
PHY	1	1	1	1
H. F EDU	1	1	1	0
AVG	0.53846	0.65385	0.61538	0.57692
%age	53.84615	65.38462	61.53846	57.69231

Table 4 reflects that, 0.5384 (53.84) faculty members are using computer for mainating admission record in the Departments of university of Sargodha was found to be 0.5384 (53.84%), while computers used for net searches, lecture preparation and general use was found to be 0.6583 (65.83%), 0.6153 (61.53%) and 0.5769 (56.79%) respectively.



**Table 5. Is Internet Facility Available In The Department? (Q No. 5)**

<i>Department</i>	<i>Yes</i>	<i>No</i>	<i>Req (Yes)</i>	<i>(Req No)</i>
EDU	1	0	0	1
IT	1	0	0	1
I. STUDY	1	0	0	1
E. SCIENCE	1	0	0	1
STATE	1	0	0	1
BIO	1	0	0	1
ENG	1	0	0	1
F. ART	1	0	0	1
F. TECK	1	0	0	1
S. WORK	1	0	0	1
LAW	0	1	1	0
CHE	1	0	0	1
PSY	1	0	0	1
ECO	1	0	0	1
C. STUDY	1	0	0	1
IR	1	0	0	1
B. STUDY	1	0	0	1
URDU	1	0	0	1
HIST	1	0	0	1
MATH	1	0	0	1
MEDICAL	0	1	1	0
PHARMACY	1	0	0	1
O. LANG	1	0	0	1
A CULTURE	0	1	1	0
PHY	1	0	0	1
H. F EDU	1	0	0	1
AVG	0.88462	0.11538	0.11538	0.88462
%age	88.46154	11.53846	11.53846	88.46154

Table 5 reflects that 0.8846 i-e 88.46% of respondent agreed with the availability of internet in departments of university of Sargodha, where as 0.1153 (11.53%) was disagreed the statement.

Table also reflects that 0.1153 (11.53%) of the respondent agreed with the requirement of internet facility in the departments, where as 0.8846 (88.46%) was disagreed the statement.

**Table 6. Is Website of the Department available? (Q No. 6)**

<i>Department</i>	<i>Yes</i>	<i>No</i>	<i>Req (Yes)</i>	<i>Req (No)</i>
EDU	1	0	0	1
IT	1	0	0	0
I. STUDY	0	1	0	1
E. SCIENCE	1	0	0	0
STATE	1	0	0	0
BIO	0	1	0	0
ENG	0	1	1	0
F. ART	0	1	1	0
F. TECK	1	0	0	0
S. WORK	1	0	0	0
LAW	0	1	1	0
CHE	0	1	1	0
PSY	1	0	0	0
ECO	0	1	1	0
C. STUDY	0	1	0	0
IR	0	1	0	0
B. STUDY	1	0	0	0
URDU	0	1	0	0
HIST	0	1	1	0
MATH	1	0	0	0
MEDICAL	0	1	1	0
PHARMACY	0	1	1	0
O.LANG	0	1	1	0
A CULTURE	1	0	0	0
PHY	1	0	0	0
H. F EDU	0	1	1	0
AVG	0.42308	0.57692	0.38462	0.07692
%age	42.30769	57.69231	38.46154	7.69231

Table 6 reflects that 0.423 (42.30%) of respondents agreed with the availability of website in the departments of university of Sargodha, where as 0.5769(57.69%) disagreed with the statement. Table also reflects that 0.3846 (38.46%) of the respondent agreed with the

requirement of website in the departments, whereas (0.07692) (7.69%) disagreed with the statement.

**Table 7. Is Digital Library available in the Department? (Q No. 7)**

<i>Department</i>	<i>Yes</i>	<i>No</i>	<i>Req (Yes)</i>	<i>Req (No)</i>
EDU	0	1	0	0
IT	1	0	0	0
I. STUDY	0	1	0	1
E. SCIENCE	0	1	1	0
STATE	0	1	1	0
BIO	0	1	0	0
ENG	0	1	1	0
F. ART	0	1	1	0
F. TECK	0	1	0	0
S. WORK	0	1	1	0
LAW	0	1	1	0
CHE	0	1	1	0
PSY	0	1	0	0
ECO	1	0	0	0
C. STUDY	0	1	1	0
IR	0	1	0	0
B.STUDY	0	1	0	0
URDU	0	1	0	0
HIST	0	1	1	0
MATH	0	1	1	0
MEDICAL	0	1	1	0
PHARMACY	1	0	0	0
O. LANG	0	1	1	0
A CULTURE	0	1	1	0
PHY	0	1	1	0
H. F EDU	0	1	1	0
AVG	0.11538	0.88462	0.57692	0.03846
%age	11.53846	88.46154	57.69231	3.84615

Table 7 reflects that 0.1153 (11.53%) of the respondents agreed with the availability of digital library in the departments of University of Sargodha, where as 0.08846(88.46%) disagreed with the statement.

Table also shows that 0.5769(57.69%) of the respondent agreed with the requirements of digital library in the departments, where as 0.0384 (3.84%) disagreed with the statement.

**Table 8. Is There any Use of Video-Conference in the Department? (Q No. 8)**

<i>Department</i>	<i>Yes</i>	<i>No</i>	<i>Req (Yes)</i>	<i>Req (No)</i>
EDU	0	1	0	0
IT	0	1	1	0
I. STUDY	0	1	0	0
E. SCIENCE	1	0	0	0
STATE	0	1	0	0
BIO	0	1	1	0
ENG	1	0	0	0
F. ART	0	1	1	0
F. TECK	1	0	0	0
S. WORK	0	1	1	0
LAW	0	1	1	0
CHE	1	0	0	0
PSY	1	0	0	0
ECO	0	1	1	0
C. STUDY	1	0	0	0
IR	1	0	0	0
B. STUDY	0	1	0	0
URDU	0	1	0	0
HIST	0	1	0	0
MATH	0	1	1	0
MEDICAL	0	1	1	0
PHARMACY	1	0	0	0
O. LANG	0	1	1	0
A CULTURE	0	1	1	0
PHY	0	1	1	0
H. F EDU	0	1	0	1
AVG	0.30769	0.69231	0.42308	0.03846
%age	30.76923	69.23077	42.30769	3.84615

Table 8 reflects that 0.3076 (30.76%) of the respondents agreed with the availability of video-conference in departments of University of Sargodha, where as 0.6923 (69.23%) disagreed with the statement, Table also shows that 0.4230 (42.30%) of the respondents agreed with the

requirements of video conference in the department, where as 0.03843 (3.84%) disagreed with the statement.

**Table 9. Is the Lab Facility available in the Department? If (Yes) Please Mention the No. of Lab. If (No) Do you require? (Q No.9)**

<i>Department</i>	<i>Yes</i>	<i>No</i>	<i>No.of. Lab</i>	<i>Req (Yes)</i>	<i>Req (No)</i>
EDU	1	0	1	0	1
IT	1	0	6	0	1
I. STUDY	0	1	0	0	1
E. SCIENCE	1	0	0	0	0
STATE	0	1	0	1	0
BIO	0	1	0	1	0
ENG	0	1	0	1	0
F. ART	0	1	0	1	0
F. TECK	0	1	0	0	0
S. WORK	0	1	0	1	0
LAW	0	1	0	1	0
CHE	1	0	0	0	0
PSY	0	1	0	1	0
ECO	1	0	3	0	0
C. STUDY	0	1	0	1	0
IR	0	1	0	1	0
B. STUDY	1	0	0	0	0
URDU	0	1	0	1	0
HIST	0	1	0	1	0
MATH	1	0	1	0	0
MEDICAL	0	1	0	1	0
PHARMACY	1	0	1	0	0
O.LANG	0	1	0	1	0
A CULTURE	0	1	0	1	0
PHY	1	0	1	0	0
H. F EDU	0	1	0	1	0
AVG	0.34615	0.65385	0.5	0.57692	0.11538
%age	34.61538	65.38462	50	57.69231	11.53846

Table 9 reflects that 0.3461 (34.61%) of the respondents agreed with the availability of labs in departments of University of Sargodha, where as 0.6538 (65.38%) disagreed with the statement.

Table also shows that 0.5769 (57.69%) of the respondents agreed with the requirements of labs in departments, where as 0.1153 (11.53%) disagreed with the statement, and 0.5 (50%) was found to be no of labs.

**Q No.10 Is There Any Skilled Person Available In The Department? To Install Different Software Programmed?**

**Table 10. Part (A)-If (No) Do You Require?**

<i>Department</i>	<i>Yes</i>	<i>No</i>	<i>Req (Yes)</i>	<i>Req (No)</i>
EDU	0	1	1	0
IT	1	0	0	0
I. STUDY	0	1	0	0
E. SCIENCE	1	0	0	0
STATE	0	1	1	0
BIO	1	0	0	0
ENG	1	0	0	0
F. ART	0	1	1	0
F. TECK	0	1	1	0
S. WORK	1	0	0	0
LAW	0	1	1	0
CHE	1	0	0	0
PSY	0	1	1	0
ECO	1	0	0	0
C. STUDY	0	1	0	1
IR	1	0	0	0
B. STUDY	1	0	0	0
URDU	1	0	0	0
HIST	0	1	0	1
MATH	0	1	0	1
MEDICAL	0	1	1	0
PHARMACY	1	0	0	0
O. LANG	0	1	1	0
A CULTURE	1	0	0	0
PHY	1	0	0	0
H.F EDU	0	1	1	0
AVG	0.5	0.5	0.34615	0.11538
%age	50	50	34.61538	11.53846

Table 10 (part A) reflects that 0.5 (50%) of the respondents agreed with the availability of skilled person for installation of different software program in departments of University of Sargodha, where as 0.5 (50%) disagreed with the statement,

Table also shows that 0.3461 (34.61%) of the respondents agreed with the requirements of skilled person for installation of different software programmed in the departments, where as 0.1153 (11.53%) disagreed with the statement.

**Table 10. Part (B)-To Solve Physical Memory Problem? If (No) Do You Require?**

<i>Department</i>	<i>Yes</i>	<i>No</i>	<i>Req (Yes)</i>	<i>Req (No)</i>
EDU	0	1	1	0
IT	1	0	0	0
I. STUDY	0	1	0	0
E. SCIENCE	1	0	0	0
STATE	0	1	1	0
BIO	1	0	0	0
ENG	1	0	0	0
F. ART	0	1	1	0
F. TECK	0	1	1	0
S. WORK	1	0	0	0
LAW	0	1	1	0
CHE	1	0	0	0
PSY	0	1	1	0
ECO	1	0	0	0
C. STUDY	0	1	0	1
IR	1	0	0	0
B. STUDY	1	0	0	0
URDU	0	1	1	0
HIST	0	1	1	0
MATH	0	1	1	0
MEDICAL	0	1	1	0
PHARMACY	0	1	1	0
O. LANG	0	1	1	0
A CULTURE	1	0	0	0
PHY	1	0	0	0
H. F EDU	0	1	1	0
AVG	0.42308	0.57692	0.5	0.03846
%age	42.30769	57.69231	50	3.84615

Table 10 (part B) reflects that 0.4230 (42.30%) of the respondent agreed with the availability of skilled person to solve physical memory problem in the departments of university of Sargodha, where as 0.5769 (57.69%) disagreed with the statement.

Table also shows that 0.5 (5.0%) of the respondents agreed with the requirements of skilled person to solve physical memory problem in departments, where as 0.3846 (3.84%) disagreed with the statement.

**Table 10. Part(C)-To Solve Hardware Problem? If (No) Do You Require?**

<i>Department</i>	<i>Yes</i>	<i>No</i>	<i>Req (Yes)</i>	<i>Req (No)</i>
EDU	0	1	1	0
IT	1	0	0	0
I. STUDY	0	1	0	0
E. SCIENCE	1	0	0	0
STATE	0	1	1	0
BIO	1	0	0	0
ENG	1	0	0	0
F. ART	0	1	1	0
F. TECK	1	0	0	0
S. WORK	0	1	1	0
LAW	0	1	1	0
CHE	1	0	0	0
PSY	0	1	1	0
ECO	1	0	0	0
C. STUDY	0	1	0	1
IR	1	0	0	0
B. STUDY	1	0	0	0
URDU	0	1	1	0
HIST	0	1	1	0
MATH	0	1	1	0
MEDICAL	0	1	1	0
PHARMACY	0	1	1	0
O. LANG	0	1	1	0
A CULTURE	1	0	0	0
PHY	1	0	0	0
H. F EDU	0	1	1	0
AVG	0.42308	0.57692	0.5	0.03846
%age	42.30769	57.69231	50	3.84615



Table 10 (part C) reflects that 0.423 (42.30%) of the respondent agreed with the availability of skilled person to solve hardware problem in departments of University of Sargodha, where as 0.5769 (57.69%) disagreed with the statement.

Table also shows that 0.5 (50%) of the respondent agreed with the requirement of skilled person to solve hardware problems in the departments, where as 0.0384 (3.84%) disagreed with the statements.

**Table 11. Is Department Working on any Recent Project to Meet Certain Requirement Related to IT (Q No.11)**

<i>Department</i>	<i>Yes</i>	<i>No</i>	<i>Detail</i>
EDU	0	1	0
IT	1	0	1
I. STUDY	0	1	0
E. SCIENCE	1	0	0
STATE	0	1	0
BIO	0	1	0
ENG	0	1	0
F. ART	0	1	0
F. TECK	0	1	0
S. WORK	0	1	0
LAW.	0	1	0
CHE	0	1	0
PSY	0	1	0
ECO	0	1	0
C. STUDY	0	1	0
IR	0	1	0
B. STUDY	1	0	0
URDU	0	1	0
HIST	0	1	0
MATH	0	1	0
MEDICAL	0	1	0
PHARMACY	0	1	0
O. LANG	0	1	0
A CULTURE	0	1	0
PHY	1	0	0
H. F EDU	0	1	0
AVG	0.15385	0.84615	0.03846
%age	15.38462	84.61538	3.84615

Table 11 reflects that 0.1538 (15.38%) of the respondent agreed with the working on recent project related to IT in the departments of University of Sargodha, where as 0.8461 (84.61 %) disagreed with the statement.

Table also shows that 0.384 (3.84%) of the departments provide detail of projects.

**Table 12. Details of Staff**

<i>Name of Section</i>	<i>Total No</i>	<i>Total Number IT skills/No Diploma</i>	<i>IT Diploma</i>
Admin Staff	72	33	18
Regular Faculty	248	66	34
Contractual	59	19	14
Part Time/Visting	26	8	5
Office Staff	100	21	6
Average	101	29.4	15.4
%Age	10100	2940	1540

Table 12, reflects that 101 (10100%) of the respondents agreed with the availability of human resources in department of University of Sargodha. Table also shows that 29.4 (2940%) of the respondent agreed with the availability of skilled staff but without IT diploma in the departments, where as 15.4 (15.40%) of the respondents agreed with the trained staff with IT diploma.

**Table 13. Details of Material resources**

<i>Name Of Material</i>	<i>Total No Available</i>	<i>Required</i>	<i>Average</i>	<i>%Age</i>
Computer	751	350	550.5	55050
Printer	61	83	72	7200
Scanner	12	34	23	2300
Over Head Projector	16	29	22.5	2250
Multimedia	17	37	27	2700
Digital Camera	2	25	13.5	1350
Average	143.16667	93		
%Age	14316.66667	9300		

Table 13 reflects that 143.16 (14316.66%) of the respondent agreed with the availability of material resources in departments of University of Sargodha, where as 93(9300%) of the respondent agreed with the requirements of material resources in departments.

**Table 14. Q No. 14 If Staff Requires IT Training? What Should Be The Duration Of Training?**

<i>Department</i>	<i>Yes</i>	<i>&lt;=3</i>	<i>3&gt;</i>	<i>No</i>	<i>Average</i>	<i>%Age</i>
EDU	1	1	0	0	0.5	50
IT	1	1	0	0	0.5	50
I. STUDY	0	0	0	1	0.25	25
E. SCIENCE	1	1	0	0	0.5	50
STATE	0	0	0	1	0.25	25
BIO	1	1	0	0	0.5	50
ENG	0	0	0	1	0.25	25
F. ART	0	0	0	1	0.25	25
F. TECK	0	0	0	1	0.25	25
S. WORK	1	1	0	0	0.5	50
LAW	1	1	0	0	0.5	50
CHE	1	0	1	0	0.5	50
PSY	1	0	1	0	0.5	50
ECO	1	1	0	0	0.5	50
C. STUDY	1	1	0	0	0.5	50
IR	0	0	0	1	0.25	25
B. STUDY	0	0	0	1	0.25	25
URDU	1	1	0	0	0.5	50
HIST	1	1	0	0	0.5	50
MATH	1	1	0	0	0.5	50
MEDICAL	1	0	1	0	0.5	50
PHARMACY	1	1	0	0	0.5	50
O. LANG	1	1	0	0	0.5	50
A CULTURE	1	1	0	0	0.5	50
PHY	1	1	0	0	0.5	50
H. F EDU	0	0	0	1	0.25	25
AVG	0.69231	0.57692	0.11538	0.30769		
%AGE	69.23077	57.69231	11.53846	30.76923		

Table 14 reflects that 0.6923 (69.23%) of the respondent agreed with the requirement of training in department of University of Sargodha, where as 0.3076 (30.76%) disagreed with the statement.

Table also shows that 0.57692 (57.69%) of the respondent agreed with the <3month duration of training in the departments, where as 0.11538 (11.54%) agreed with >3msonth duration of training in the departments

## CONCLUSION

On the basis of finding of the study, It was concluded that availability of material resources in the management of teaching Departments was 14316.67% and requirements of material resources was found to be 9300%. Total staff availability in teaching departments was found to be 505, out of 2940% was skilled but without IT diploma and 1540% was skilled having IT diploma. It was also concluded that 69.23% of teaching

Departments said that there should be training, out of which 57.69% said that training should be equal or greater than 3 month and 11.53% said that training period should be less than 3 month. It also concluded that only three departments were working on IT projects.

Our study identified the facilities, availability and needs of information technology faculty wise. Than it was concluded that faculty of arts, social sciences and law has less availability of material resources therefore has greater requirements.

Trained staff of arts Departments without diploma was found to be less than staff with diploma. IT facilities like (Internet, website, video conferencing, digital library, skilled persons etc.) in arts Departments was found to be sufficient than requirements Mostly arts departments used P4 computers and different software were also used.

Arts departments used computers for different purposes.

### Faculty of Science and Technology

It was concluded that availability of material resources was found to be less than requirements. Staff which has no diploma was found to be greater than staff with diploma in Science and Technology Departments. Mostly Science Departments used P4 and P3 computers and used different software in different Departments of Science faculty. These computers were used for useful purposes.

### Faculty of Medical

It was also conclude that faculty of Medical Department was found to be 100% requirements and with no availability.

### Faculty of Agriculture

It was conclude that faculty of Agriculture has the sufficient availability but also has requirements of material resources. Trained staff in Agriculture faculty with IT diploma and without IT diploma was found to be equal. Availability of IT Facilities in Agriculture Departments was found to be less than requirements.

The agriculture Departments mostly used P4 computers and software used. These computers were used for different purposes

### Faculty of Islamic and Oriental language

Availability of material resources to the faculty of Islamic and oriental language was found to be less than Requirements. Staff in the faculty of Islamic and Oriental with diploma was

found to be greater than without diploma. Availability of IT facilities was found to be less than requirements. It was concluded that this faculty used mostly P4 computers and different software were used. Computers were used for different purposes.

### **Faculty of Management and Administrative Science**

Availability of material resources in Management and Administrative science was found to be sufficient but requirements was also there. Trained staff with IT diploma in this faculty was greater than without IT diploma. Availability of IT facilities was greater than requirements in this faculty. This faculty used P4 computers and used different software. These computers were used for Different purposes.

## **DISCUSSION**

The purpose of study was to find Needs, Skills and availability of Information Technology in faculties of Teaching Departments of University of Sargodha.

Information Technology can be defined as “The use of hardware, software, Services and supporting infrastructure to manage and deliver information technology using voice, data and video. Therefore our research also has purpose to get analysis of IT in the University of Sargodha. Information Technology becomes very important now days. Every work and record can be done and managed efficiently by the use of computers, printer, digital library etc .We concluded that by our research about

Information Technology in all faculties of that all faculties of teaching Departments of University of Sargodha have requirements of material resources greater than availability. The trained staff with IT diploma was less than without diploma in all faculties of teaching Departments in University of Sargodha. Mostly Departments has demand of training of more or less than three month for improvement. Majority of Departments used P4 computers and different software. Some Departments used only MS software and computers were used for different purposes, like (preparation of lectures, net searches, general use, and admission record.)

As according to our research, it was proved that teaching Departments of University of Sargodha has sufficient needs for material resources of IT, facilities of IT, training has becomes a necessary step for university of Sargodha. Faculty of Arts just only one Department has lab facility that was not sufficient for fulfillment of needs of the faculty of Arts, social science as well as law. Science Departments should also be provided with minimum one lab facility available.

For more improvement there should be at least one computer available to every teacher in each Department of University of Sargodha, so that he/ she can easily perform his tasks. Digital library should be provided for more development. In this modern era of technology. Video-conference should also start in this University because in foreign Universities, their progress was due to all these material resources of information technology, and their Management was very efficient and well-managed.

The planning and acquisition of information technology resources should be at proper time so that an ongoing support services could be get for institution.

The faculty and the administrator should be provided with an opportunity to contribute in planning, selection and evaluation of information technology resources needed by academic and administrative program.

The telecommuting network capability should be appropriate for providing convenient access to the faculty of different Departments with different universities and information providers. The current and planned facilities of providing information technology resources should be adequate in quantity as well as quality.

The institutional environment should encourage the staff to make the appropriate and innovative use of information technology for improvement of academic and management programs.

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