# Computerized UIS:
An Effective Too

ABSTRACT

Education system needs to undergo numerous reforms to ensure to make the country a true knowledge superpower. This has thrown variety of challenges before institutions of higher learning specially universities. To meet these challenges and opportunities, an e-UIS is one such means available for managing various operations in a university. Present paper based on primary data of various Indian universities aims to ascertain the status of UIS in Indian universities in terms of adoption of IT in various functional areas, existing problems in the university system and understanding about UIS among service providing personnel of the university system. Data was analyzed and inferences have been drawn which will help university administration to take effective and efficient decisions to deploy their resources and re-engineer their services.

Keywords: University Information System (UIS), Information System (IS), Internet, Unprecedented Information, and Institutions of National Importance.

For Management Of University Administration

Dr. Sangeeta Gupta, Dr. H. Bansal,
Dr. A. K. Saini, Dr. Dharminder Kumar
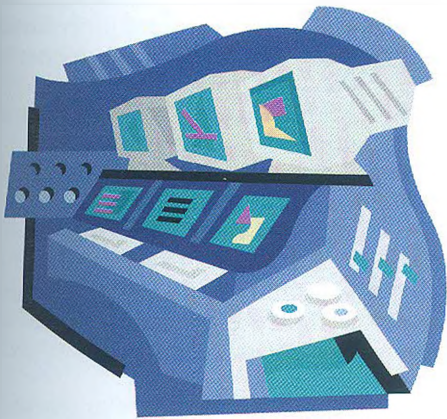
INTRODUCTION

Educational Institutions especially Universities are very important institutions in any nation for exploring, generating, conserving and transmitting knowledge. The importance of institutions of higher education for progress and prosperity of a nation is unquestionable. The administration and management of educational institutions providing higher education in a developing country like India which lacks enough resources, poses a big challenge. The needs of such institutions have multiplied over the years while there are severe budget cuts imposed by the controlling/funding agencies. Over the years there has been an all round growth in the number of students enrolled, number of new professional and other courses started resulting in more administrative and other related work. This puts more demand for additional financial resources required for the purpose. In order to balance the two and other social programmes expected from an institution of higher education such as University, it is of utmost importance that they must make efficient and effective use of available resources using the all-pervasive information technology. This paper is aimed at presenting an analytical framework for understanding the role of information system in the University administration as a whole as well as among central and state universities. It throws light on the status of Information System in Indian Universities in terms of the adoption of IT in various functional areas, existing problems in the university system, the understanding and scope of UIS among service functions of the University system.

In our education system basically there are two type of institutions imparting education, one who provides primary education like Kinden garden, schools etc. and other who provides higher education like colleges, IIT'S, IIM'S, universities and technical universities. The Indian universities are classified broadly as unitary and affiliating, deemed university and institutions of national importance, private and public university, state and central university.

Information System is defined as "A system, typically computer based, that collects and process data (information) and provide it to managers at all levels who use it for decision making, planning, program implementation and control. An IS is comprised of all components that collect, manipulate and disseminate data or information. It usually includes hardware, software, people, communication system such as telephone lines, lease line etc. and the data itself. The activities involved include inputting data, processing of data into information, storage of data and information and the production of output such as management reports" (Management Glossary.Info).

The information systems in universities like other organizations have traditionally been implemented through manual methods of information processing. A manual information system is very costly, inherently slow, error prone and has a lot of redundancy of data. To alleviate the problems in manual systems, organizations have turned towards the EDP (Electronic Data Processing) based methods of information processing as done in industrial establishments. A computerized University information system improves the functioning in a cost effective way. The aim of such systems is to improve the quality of service; to reduce the administrative work; to provide appropriate data for the use of managers and planners; to provide right information at right time to right person and in right format; to make a built in system of link-up and follow-up; and to make regularity in the periodicity of information flow etc.

The primary objectives of this paper are to study the status of adoption of Information Technology in Central and State Universities; to identify information bottlenecks; and to identify the issues related to develop IS in university systems.

MAJOR BOTTLENECKS IN THE EXISTING SYSTEM

The existing system prevalent in the sample universities was studied through interaction with the university personnel as well as analysis of various documents and reports. Based on this, major bottlenecks in the existing system were identified and are listed below:

- There is no clear initiative to use the information technology in improving the operations that are voluminous in nature. This is reflected from the absence of any plan (formal or informal) for adoption of IT in various sections of the university system.
- The recording of data in the existing manual system is deficient in a number of ways. Some of these are: large number of forms, inaccurate data recording, data duplication at different service points resulting in transcription errors, etc.
- The present information system does not generate timely reports for planning and monitoring of services at micro and macro level.
- Maintenance of records and registers in various departments is considered merely a formality. These are considered a waste of time and no effective control is exercised on this work in terms of accuracy, completeness, etc.
- The present system of stores management is quite old, inefficient and ineffective. This results in high lock up of capital in stores, frequent stock-out situations for crucial items, etc. This results in petty purchases and thereby complicates the system further. No use is made of scientific inventory control techniques for the management of stores function. The current stock status and valuation cannot be made. The physical inspection is also not done.
- The finance sections assigned with crucial tasks of cash collection, budgeting, expenditure reconciliation, payroll, provident fund, etc. are inefficient and lack coordination.
- The system of maintenance of expensive equipments in the university is largely found to be ineffective. The system suffers from lack of proper recording of purchase terms and conditions, follow-up for timely preventive maintenance, renewal of maintenance contracts, etc. This results in unattended faults causing non-utilization of equipments such as computers, automatics calculators, photocopier machines, etc.
- Although well defined working procedures for every activity are available but these are not followed properly in practice. This results in inconsistent and incompatible recording of information in various subsystems of the university system.
- The cost accounting analysis of various operations cannot be undertaken due to non-availability of relevant data and the lack of cost consciousness.
- Information technology has been adopted in an adhoc manner and completely lacks a systematic approach. The computers have been purchased centrally and issued to almost every section of the university. A majority of these have not been installed in the absence of proper power conditioning equipments such as UPS/CVT for

running these systems. The systems were got installed inquisitive users in certain sections without s equipments and are being used mainly for playing gam
- There is a reasonably high level of lack of confidence in computer-based systems among the users. This ar mainly due to absence of proper training for using th systems, application software for performing vari functions, etc.
- University Website does not serve the information nee
- There is either no networking in the Universities or s of them are in the initial stage of networking
- The system of financial management continues to b the old pattern of line budgeting.

It was found that majority of the sections:-
- are still working with manual based procedures;
- are not affected by the hi-tech information techno revolution;
- are not using computer as a problem solving tool;
- are at the initiation stage of the EDP growth.
- affected by non-availability of the dealing han respond to queries.
- are still using obsolete working procedures.

The major reasons identified for the above scenario are:-
- Lack of initiative from the top management;
- Absence of Cost Consciousness;
- Lack of Accountability;
- Non-availability of skilled / trained manpower;
- No Feeling of Competitiveness;
- Lack of training;
- Non-Availability of relevant software;
- Resistance from Employees due to loss of importance

ISSUES & CHALLENGES For UNIVERSITIES

The National Policy on Education, observed "as computers have be important and ubiquitous tools, a mi exposure to computers and a training i use will form part of professional education and envi the use of computers in several aspects of college university education and management" (India 2001).

The UGC in its Xth plan has been helping Universitie Colleges through several general as well as specific sch to keep pace with the developments in the informatio communication technologies. The objective of the UG set up a computer center as a central facility for the g and development of teaching, research, and other r activities in addition to the work relating t administration, finance, examination, and admission university. Till date, the UGC has approved setting computer center in 145 universities (www.ugc.ac.in need for statistics on higher education needed b controlling agencies such as the Ministry of HRD and demand that a national database be established as ha done in a number of developed countries such as Norw

and USA. The database could contain aggregate data on organizational structure, courses and degrees, students, staff, finances, buildings etc.

In addition, the introduction of Right to Information (RTI - 2005) Act enacted last year by Govt. of India has further made it mandatory for all public institutions including Universities "to manage all its records duly catalogued and indexed in a manner and the form which facilitates the right to information under this act and ensure that all records that are appropriate to be computerized are, with in a reasonable time and subject to availability of resources, computerized and connected through a network all over the country on different systems so that access to such records is facilitated". Further, according to this Act if the information officer of the University is not able to furnish the desired information with in 30 days, he will be punished. This necessitates that Universities set up a computer based university information system so that the desired information can be retrieved and provided in time.

Because of the globalization and liberal policy of Indian Government, there are numbers of foreign universities knocking the door of domestic education system and of course it is a big challenge to compete with these universities due to the integration of state of the art technology in their operations. To compete with them, the Indian universities also need to forge technology in their operations.

In fact, higher education in India is undergoing a transformation. A great pressure is build up on the Universities in order to compete with their counter parts in education sector as well to become knowledge super powers. To meet these issues successfully, University administration has to cope up with a number of challenges. The traditional manual means of processing are not able to cope-up with the diverse information requirements for efficient and effective decision-making. Although these institutions are investing huge amount of money in acquiring computers for various functional sections, the entire process is adhoc, unsystematic and unplanned without any consideration to their real benefits. Software barely meets the transaction processing needs of operational units and management information needs are unrealized. Computing hardware becomes obsolete before it is paid for. The present manpower is not well versed with the latest technology, means lack of skilled manpower in the University system. To acquire skilled manpower and to train the existing manpower is a big challenge before University administration. The main financial resources of universities are fees charged from the student but unfortunately, it is insufficient to meet various financial requirement of university. So for technological advances developmental expenditure universities depends on the funds provided by either UGC or State governments. Because having financial crunch most of the State government become conservative at the time of sanctioning fund. Emotional and economic reasons of resistance to change on the part of employees like fear of technological unemployment, fear of reduce working hours resulting less pay or forego overtime etc. some times affect rate of development.

ESEARCH METHODOLOGY

The study is based on secondary as well as primary data. The primary data has been collected through a well-designed structured questionnaire (annexure-A). The sample comprise of all the administrative branches of the University, Directorate of Distance Education, University Library and various teaching departments of two Central (University of Delhi, Delhi and Jawahar Lal Nehru University, Delhi) and two State Universities (Guru Jambheshwar University of Science and Technology, Hisar and KU Kurukshetra). To begin with, a list of branch officers like Heads of the departments/Chairmen, Director, Librarian, Deputy Registrars, Assistant Registrars, and Section officers/Superintendents etc. was prepared and consequently the sample was selected by using Convenience/Purposive sampling technique. A total of 300 questionnaires were distributed in sample Universities. A total of 198 usable questionnaires were received with a response rate of 66 percent. The researcher herself conducted personal interviews based on a questionnaire in order to increase the validity and reliability of responses. The interviewer approached the respondents and explained to them the intent and content of the survey in detail. Each questionnaire was checked for its completeness. Also the responses were validated against the expected or suggested responses. The data has been analyzed using statistical software (SPSS). The various techniques made use of are: Descriptive Analysis, Chi-square test and measuring the association between various attributes. The study analyses the result from the survey and reveals what is the status of Information System in Indian Universities.

DATA ANALYSIS RESULTS AND DISCUSSIONS

The following results were revealed after analyzing data:

a. Status of Adoption of Information Technology in Central and State Universities

Table 1
Working on Computer in the Section/Department

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	154	77.8	78.2	78.2
	No	43	21.7	21.8	100.0
	Total	197	99.5	100.0	
Missing	0	1	.5		
Total		198	100.0		

If Yes, Whether Computer have Improved Functioning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	155	78.3	100.0	100.0
Missing	0	43	21.7		
Total		198	100.0		

If No, Functioning can be Improved by Using Computers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	42	21.2	97.7	97.7
	No	1	.5	2.3	100.0
	Total	43	21.7	100.0	
Missing	0	155	78.3		
Total		198	100.0		

It is a sort of revelation that as many as, 78% respondents indicate that they make use of computers for performing their work while 2 respondents says they do not use computers. However, there is a complete unanimity among all the respondents that computer has a can improve the administrative functioning and the work performance.

To ascertain the difference in Central and State University employees using computer to perform their day-to-day activities, Chi-squ was calculated. The result shows a significant value of Chi-square (x^2 =49.188, df = 1, P (0.000)<0.01). It suggests that 100% respondent Central universities are using computer in their working as compare to 58.7% respondents of State Universities.

Table 2
Is Computer Connected

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stand alone mode	116	58.6	74.8	74.8
	Network	34	17.2	21.9	96.8
	Stand alone mode and Network	5	2.5	3.2	100.0
	Total	155	78.3	100.0	
Missing	0	43	21.7		
Total		198	100.0		

About 75% respondents working on stand-alone mode while 22% respondents say that their computers are part of the network.

To know whether the computers in Central and State University are part of network, Chi-square was calculated. The results reveal significant association (x^2 =8.286, df = 2, P (0.016)<0.05). 30% respondents in Central Universities claims that their computers connected to the local network, while in State Universities only 10% respondents claims that their computers are connected to l network.

Table 3
Type of Licensed Software

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MS Office	136	68.7	87.7	87.7
	Others	2	1.0	1.3	89.0
	MS Office and Others	17	8.6	11.0	100.0
	Total	155	78.3	100.0	
Missing	0	43	21.7		
Total		198	100.0		

As indicate by about 88% respondent, the only licensed software available with the institutions is MS Office, which is loaded in all computers. There is almost no other application software available for serving various specific tasks in the universities.

To ascertain difference in use of licensed software in Central and State University, Chi-Square was calculated. The result shows (x^2 =2.781, df = 2, P (0.249)>0.01) that there is not significant difference in both the universities means MS Office is the only licensed software used in both Universities.

Table 4

Using Customized Software in the Working

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	27	13.6	20.0	20.0
	No	108	54.5	80.0	100.0
	Total	135	68.2	100.0	
Missing	0	63	31.8		
Total		198	100.0		

A high, 80% respondents are not using customize software in educational institutions while just 20% are using customized softwares, which is very low. The restricted access appears to be mainly on account of high cost of customized software and lack of awareness of available customizes software in education sector.

To identify the use of customized software in Central and State Universities, Chi-square was applied. The results indicates (x^2 =0.271, df = 1, P (0.603)>0.01), that there is not significant difference in Central and State Universities in terms of using customized software in their working. The respondent in both universities are almost equally agree (81.6%, 78% respectively) that they are not using any application software in their working.

Table 5

Requirement of Computer- Skilled Manpower

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	129	65.2	85.4	85.4
	No	22	11.1	14.6	100.0
	Total	151	76.3	100.0	
Missing		47	23.7		
Total		198	100.0		

About 86% respondents have reported that they require computer-skilled person so that working of their branch may become more effective and they can use resources efficiently while 15% respondents say that they don't require computer-skilled person.

To know whether there is a requirement of computer skilled manpower in Central and State, Chi-square test was conducted. The result shows ($\chi2$ =9.085, df = 1, P (0.003)<0.01) significant value of Chi-square. In State Universities 95.4% respondent reports that they required computer skilled personnel as compared to 77.9% respondents of the Central Universities.

Table 6

Availability of Information on Internet

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	70	35.4	36.8	36.8
	No	120	60.6	63.2	100.0
	Total	190	96.0	100.0	
Missing	0	8	4.0		
Total		198	100.0		

Majority of the respondents (63%) say that information is not available on university website however, 37% respondents accept they get some of the information from university website.

To ascertain availability of information on Internet in Central and State Universities, Chi-square was conducted. The result shows (x^2 =7.018, df = 1, P (0.008)<0.01) significant value of Chi-square. In State Universities 45.5% respondents claims that information related to them is available on the Internet. While in Central Universities 27% respondents claims that information related to them is available on the Internet.

Table 7

Level Of Understanding * Qualification

			Qualification		
			Graduate	Post Graduate	Total
Level Of Understanding	Very Good	Count	1	27	28
		% within Qualification	4.0%	28.4%	23.3%
	Good	Count	8	33	41
		% within Qualification	32.0%	34.7%	34.2%
	Medium	Count	15	28	43
		% within Qualification	60.0%	29.5%	35.8%
	Low	Count	1	7	8
		% within Qualification	4.0%	7.4%	6.7%
Total		Count	25	95	120
		% within Qualification	100.0%	100.0%	100.0%

To be able to ascertain association between qualification of the respondents and their level of understanding about the MIS, Chi-square was conducted. The result shows significant value (x^2 =10.586, df = 3, P (0.014)<0.05) of Chi-square. This means qualification of the respondents does affect the level of understanding about MIS. Notably, about 28.4% postgraduate respondents having very good level of understanding about MIS as compare to 4% graduate respondents.

b. Information Bottlenecks

Table 8
Non Availability Of The Dealing Hand

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	69	34.8	35.9	35.9
	To Some Extent	70	35.4	36.5	72.4
	No	53	26.8	27.6	100.0
	Total	192	97.0	100.0	
Missing	0	6	3.0		
Total		198	100.0		

Approximately 72% respondents agree that non-availability of the dealing hand is a problem in their section while 28% respondents feel they can make out their work even in the absence of the dealing hand.

Table 9
Lack Of Finance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	38	19.2	19.7	19.7
	To Some Extent	70	35.4	36.3	56.0
	No	85	42.9	44.0	100.0
	Total	193	97.5	100.0	
Missing	0	5	2.5		
Total		198	100.0		

As it is indicated by the table about 56% of the respondents agree lack of finance is a problem in their section, while 44% respondents say that they have enough funds to meet their requirements.

Table 10
Lack Of Quick Information Availability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	74	37.4	38.5	38.5
	To Some Extent	70	35.4	36.5	75.0
	No	48	24.2	25.0	100.0
	Total	192	97.0	100.0	
Missing	0	6	3.0		
Total		198	100.0		

About 75% respondents indicate that in their section they are not able to get quick information whereas 25% respondents say that they get information whenever they required it.

Table 11
Inadequate Computers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	71	35.9	46.7	46.7
	To Some Extent	34	17.2	22.4	69.1
	No	47	23.7	30.9	100.0
	Total	152	76.8	100.0	
Missing	0	46	23.2		
Total		198	100.0		

About 70% respondents say that they have less number or inadequate computers in their branch. Only 30% respondents say that they can work without computer also so it is not a problem for them.

Table 12
Non Availability Of Relevant Software

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	64	32.3	40.3	40.3
	To Some Extent	45	22.7	28.3	68.6
	No	50	25.3	31.4	100.0
	Total	159	80.3	100.0	
Missing	0	39	19.7		
Total		198	100.0		

According to 69% respondents they are not having relevant software for effective and efficient working of the section /bn While 31% respondents say this is not a problem. The low percentage seems to be on account of university branches not ha application software.

Table 13
Non Availability Of Trained Manpower

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	89	44.9	46.4	46.4
	To Some Extent	61	30.8	31.8	78.1
	No	42	21.2	21.9	100.0
	Total	192	97.0	100.0	
Missing	0	6	3.0		
Total		198	100.0		

A relatively high, 78% respondents says non availability of trained manpower is a sever problem in their branch. Trai manpower not in computer but also in office procedures while a low, 22% respondents are not agree with them.

Table 14
Obsolete Working Procedures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	76	38.4	39.8	39.8
	To Some Extent	61	30.8	31.9	71.7
	No	54	27.3	28.3	100.0
	Total	191	96.5	100.0	
Missing	0	7	3.5		
Total		198	100.0		

Obsolete working procedures in the section have been considered by 72% respondent as a problem while just 28% consider be low severity problem.

Table 15
Lack Of Flexbility In Report Generation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	59	29.8	31.1	31.1
	To Some Extent	59	29.8	31.1	62.1
	No	72	36.4	37.9	100.0
	Total	190	96.0	100.0	
Missing	0	8	4.0		
Total		198	100.0		

According to 62% respondents there is lack of flexibility in report generation while 38% considered it a low priority problem low percentage seems to be on account of people who do not want to use their own creativity or they do not want to change.

Table 16
Unprecedent Information Need

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	58	29.3	30.4	30.4
	To Some Extent	75	37.9	39.3	69.6
	No	58	29.3	30.4	100.0
	Total	191	96.5	100.0	
Missing	0	7	3.5		
Total		198	100.0		

Unprecedented information needs is consider being a problem by 70% respondents. While 30% says that they have never face such a situation.

FINDINGS AND RECOMMENDATIONS

Findings

The University communication network is found to be suffering from some level of congestion thereby affecting the performance of the administrative functions which in turn affects the consumers of education i.e. students. As students pay more towards the cost of their education they will adopt the role of paying customers and their demands for relevant courses, delivered in a convenient manner, with clearly focused career earning potential will increase. With the growth of the system in terms of courses, students, teachers, staff, equipments, fixtures, etc., the paper work has also increased correspondingly which reduces the benefits of growth. To sustain this growth efficiently, management of information is very important in a University. On the basis of the analysis of data obtained from service providers following findings have been worked out:

1. The recording of data in the existing manual system is deficient in a number of ways. Some of these include large number of forms, non-availability of these forms due to short supply, use of single form for different purposes, inaccurate data recording, data duplication at different service points resulting in transcription errors, etc. [Table 14]

2. The computers are provided in almost each section of the University but are not providing training for using these systems, and software for performing various functions. As a result of this, they are used for routine office work and just to play games in the absence of any application softwares. [Table 12 and Table 13]

3. The system of maintenance of expensive equipments in the University is largely found to be ineffective. The system suffers from lack of proper recording of purchase terms and conditions, follow-up for timely preventive maintenance, renewal of maintenance contracts, etc. This results in unattended faults causing non-utilization of equipments such as computers, printers, photocopier machines, and many other sophisticated machines. [Table 14]

4. Maintenance of records and registers in various departments is considered merely a formality. These are considered a waste of time and no effective control is exercised on this work in terms of accuracy, completeness, etc. [Table 15]

5. University Website does not serve the information needs and is rarely updated. [Table 6]

6. There is either no campus wide networking in the Universities or some of them are in the nascent stage of it. [Table 2]

7. State universities are not using computer as a important management tool. [Table 1]

8. In all the four sample universities, LAN is at the initial stage. [Table 2]

9. Working in sample universities affected by non-availability of the dealing hand to respond to queries. [Table 8]

RECOMMENDATIONS

The specific recommendations based on the study of the University system and the opinion survey is:

1. The University Computerization needs a modular approach and is the only way-out for productive results instead of a crash approach.

2. With the declining cost of computers, they should be the automatic cost-effective alternative rather than strengthening manual based system.

3. The development effort in a Computerized University Information System (UIS) project should commence from the activities, which are repetitive, voluminous and labour intensive and can result in tangible savings. Slowly the University can move towards other applications adopting the similar approach.

4. The activities, which should be taken up for computerization in the order of priority, are: Admissions; Examinations, Library, Financial Budgeting, Payroll, Provident Fund Accounting, Accounts Receivable and Expenditure Analysis, Loans etc.; General (store & Purchase); Establishment; Academic Departments; Engineering and Estate. The actual number of phases for this purpose depends upon the specific plans and the availability of financial resources.

5. The effort of computerization in each subsystem should be taken up only after evaluating the economic viability

of the operations, i.e. it should be applied in areas where it can really produce real benefits.

6. The University must setup a steering group to look after the adoption of computer technology in various areas and assess its benefits. The group should be headed by a senior University official and should also include senior personnel's drawn from individual departments. The group should include technical personnel from the computer center/Computer department so as to build an in-house team for routine maintenance and development functions. In the long run, the University can also create a separate cell called Centre for Information System, which should be made an integral part of the University system directly under the supervision of the Vice Chancellor.

7. Motivate the existing staff for adoption of new system by rewarding them. Reward may be financial or letter of appreciation.

8. Providing infrastructure will not be the only solution if it is not equipped with trained manpower. So at time of fresh recruitment, skilled persons with computer background should be recruited. Separate skill upgradation training programmes should be undertaken for existing employees.

9. The application software for the UIS should be developed with the help of Fourth Generation Languages using a RDBMS, which supports intranet and should be modular, flexible, user-friendly and menu driven.

ONCLUSION

Indian higher education is facing a complex and demanding situation. It is for first time we have such an attract opportunity such as Indian government in national policy consider computer powerful tool as well as UGC the apex body is also, supportive. At the same time, we are facing the undau task of doing this with limited resources with compromising on quality. In addition, there are so external and internal challenges before the Unive management such as Right to Information (RTI) Act, Entr foreign as well as private Universities, etc. At the same ti lack of infrastructure in terms of licensed and applica software, networking and there is huge demand of sk manpower. The key to survival is to ensure optimal utiliza of these scarce resources and to make extensive use of I various operations. The adoption of IT has to take according to a well thought out plan rather than the adh approach, which is presently plaguing the entire econo specially the education sector in our country. The pro management of resources requires availability of time accurate, precise and reliable information. Therefore institution providing higher education such as Universi must have an efficient and effective computerized UIS serve the growing information requirements of vario stakeholders.

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QUESTIONNAIRE

Dear Sir/Madam,

The researcher is conducting a study on "Information System in universities: A Comparative Study of Central and State Universities". As a part of this study, certain data are required to be collected for analyzing various aspects of the University information system. Therefore, you are requested to provide your free and frank opinion regarding various questions (multiple choice type) for this academic endeavor. The researcher would like to assure that the information so collected would be kept strictly confidential, and would be used only for the research purposes.

(Mrs. Sangeeta Gupta)
Research Scholar, Department of Business Management
Guru Jambheshwar University, Hisar.

Note: Please put tick mark (✓) at the response of your closest choice.

1.Do you use computers in the working of your section/deptt?	☐ Yes	☐ No
i) If No, do you feel your branch functioning can be improved Considerably by using computers.	☐ Yes	☐ No
ii) If Yes, do you feel the use of computers has improved the functioning of the section.	☐ Yes	☐ No
2. Please Specify Licensed Software loaded:	☐ MS-Office	☐ Any Other (pl. Specify)
3. How are these computers connected?	☐ Stand alone mode	☐ Network
4. Do you use some custom made software for your applications?	☐ Yes	☐ No
5. Do you feel the need for trained manpower to work on computers?	☐ Yes	☐ No
6. Is information related to your branch available on Internet?	☐ Yes	☐ No
7.what is your level of understanding about Management Information System (MIS)	☐ Very Good ☐ Medium	☐ Good ☐ Low

8. What are the major bottlenecks in information processing in your section/deptt.?	Yes	No	To extent	Some
a. Non availability of the person concerned /dealing hand.	☐	☐		☐
b. Lack of finances for various activities	☐	☐		☐
c. Lack of quick information availability	☐	☐		☐
d. Inadequate manpower	☐	☐		☐
e. In adequate/no computers	☐	☐		☐
f. Non availability of relevant software	☐	☐		☐
g. Non -availability of trained manpower	☐	☐		☐
h. Obsolete working procedures	☐	☐		☐
i. Lack of flexibility in report generation.	☐	☐		☐
j. Unprecedented information needs.	☐	☐		☐

Name (Optional)				
Age	☐ Less than 35	☐ 35-50 years	☐ above 50	
Gender	☐ Male	☐ Female		
Qualification:	☐ Graduate	☐ Post Graduate	☐ Ph.D	
Designation:	☐ Chairman	☐ Librarian	☐ DR	☐ AR ☐ SO

Thanks.