Researchers Dimensions

S. P. Rajguru
Editor-in-chief

A Multi-Disciplinary Peer-Reviewed International Research Journal
A STUDY OF MANAGEMENT INFORMATION SYSTEM (MIS) FOR SELECTED MANAGEMENT INSTITUTES

Dr. B. S. Sawant,
Director, KBFIMSR,
Satara

Miss. Vidyasagar Tawale,
Asst. Professor in Commerce,
Arts & Commerce College,
Karegaon, Satara.

I. Introduction:

Management Information System (MIS) which is used to gather the information that is systematically and routinely collected in accordance with a well-defined set of rules. In other words, data collection is a planned activity which has resources allocated and rules are well-defined. Management Information System is used by authority to take decisions for the successful operation of an institute. Management Information System is a solid foundation of computer resources, people and procedures. The Management Information System (MIS) is at the heart of almost all administrative activity relating to students and their courses. Management Information System deals with various processes prospective students and admissions, fees, and registrations. It also deals with exam results, graduation and transfer reports.

II. Review of Literature

Patel M. B. Patel B. C. Patel D. B. They have conducted research on 'Management Information Systems Strategy - A Conceptual Approach for an Educational Institute.' The study has focused on developing a strategy for management information systems. For this, different stages are described in this paper and on the basis of that, overall application architecture for educational institutions is developed. The approach is based on the working experience at an educational institute and intuition of authors. This is a gross design and detailed management information system design can be further developed by the planner. All institutes need to plan their management information systems. They all need to plan their information system in one form. People have talked much about information system planning in institutes but very few have emerged as practical leaders. In many cases, the planning of information systems is left to chance or to the ego of a data processing specialist. Whatever may be the level of planning, enough care should be taken from the very beginning. Planning approach must be adaptable and institute-oriented. It is a prerequisite to success in information systems that the real institute's plans, priorities, needs, objectives and goals must be identified and understood by the information systems planner. Without existing long-range plans, it is harder to develop new, more effective strategy for the future.
A common perception to change in the research and development activity is the decision to launch a new style of research and development work which can be immediately implemented in solving real life problems. This of course probably need for rapidly developed service and support systems for it. A valuable way of classifying information system is on the basis of the nature of the contribution made to the institute. It is essential that the information system development approach is geared up closely to the institute’s plans, priorities, objectives and goals. Without this, there is no basis for determining the system to be developed. Technology and our current approaches in making use of it will not alone help us to meet the objectives. Therefore, it is important to improve the means for developing applications, and the approaches to information systems planning and analysis. Such an approach to planning will improve the means for estimating the developments, operational computing and communication capacity. Decision support systems can be used to improve managerial decision making. It improves the speed and quality of senior and middle management decision making in institute through provision of better information at the right time and in the right format. Results of the analysis of the institute’s information needs from the first phase. This represents the types of system which the institute might keep the data about. The information architecture is the foundation on which more detailed analysis and eventual construction must be based. The model deliverable is the institute’s systems architecture, which outlines the computer and critical systems needed to support the institute functioning and dependencies between these systems. The institute architecture differs from the preceding information architecture in that there is emphasis on what the system will do and how the data will be organized, rather than on what the institute is about and what data is used. The resulting product is a restatement of the information architecture of the institute showing the data and the process involved in more detail. The processes are shown on application systems maps which identifies at a conceptual level the major application areas and the interrelationships.

Main Pissouneault (1990) had conducted a research under the title of include the organizational implications of computing, especially with regard to the utilization/decentralization of decision making authority and middle managers workforce; this study has focused on strategic and political uses of computing, the use of information technology to support group decision making process; and the benefits of computing quick Pissouneault.

1. Management Problem:

Management Information System (MIS) is the heart of almost all administrative activity in the institute and three courses. Management Information System has deals with various processes prospective students and admissions, fees, and registrations. It also deals with examining and maintaining all these reports manually is very difficult and variety of reports are not.

possible through manual system. On the basis of management problems in the present study has been an effort to provide management effective Management Information System that will satisfy management all requirements.

IV. Objectives of the Study:

The study was focused on the following objectives:

1. To study the existing system the system which is paper based and may not necessarily be computerized.
2. To analyze the existing system - the existing system would be analyzed on the basis of articulation of objectivity and expectations.
3. To develop computerized Management Information Systems (MIS).

V. Scope of the Study:

Present research has been conducted under various management institutes under Shivaji University at Kolhapur. Study confined to management information system in post graduate institutes imparting management program recognized by Shivaji University, Kolhapur the study set to state the architecture required for management institutes at micro level data would be classified and posted in different sub systems so as to generate desired reports.

VI. Research Methodology:

This is a case study research. The research methodology which has been used for research work is as follows:

A. Data Required

Data about students’ information, office records, and various types of reports have been important data for respected research study. Some accounting data has been taken from books of accounts.

B. Data Sources

Both primary and secondary sources have been used to collect the data for the research.

Primary data sources – The primary data was collected by actual field survey through questionnaire and interviews with authorities of the management institute and employees of the various departments of the institute.

Secondary data Sources – Secondary data was collected from the various office records, from various reports, income and expenditure statements, balance sheet from various management operations books etc.
C. System analysis and design

System analysis has been done by using following techniques of system analysis and design.

1. Context Level Diagram (CLD) - CLD has given overview of the system. It has been also shown as level DFD.

2. Entity Relation Diagram (ERD) - Each system has entities such as people, places, things etc. These entities in the system interact with each other in various ways and those interactions have been shown by ERD.

3. Data Flow Diagram (DFD) - DFD is a graphical aid for defining systems inputs, processes and outputs. Visual Basic 6.0 has been used as a front end and SQL 2005 has been used as back end for the system development. Theoretical and historical details about the existing Management Information System are collected by referring different books of Institutes of Management Study. Primary data has been collected from various institutes. Problems faced by students and users of existing Management Information System are found out by discussions with their department's staff and with the help of schedule. To eliminate those problems, tailor-made software is developed which is compatible with existing system and validity is tested using real data of institute's Management Information System.

II. Difference between Manual and Computerized Management Information System:

Computerized Management Information System (MIS) provides a facility to manage information of the student, employee, teaching staff, and Authorities all records has been maintained on the click of a button. Computerized MIS enables easy access and manage a standardized education plan along with the ability to monitor all activity of institution. As student strength, attendance, extracurricular activities, assessments, fees, awards history etc. all reports of these are available at both high Authority level and college level for quick and better decision making. Complete built in security and rights for different users and group of users are provided. Single click for database backup, fast, powerful and integrated information management system (MIS) has been designed to automate and grant all the office operations such as information about prospective and admissions about fees, etc. It also focuses on the needs of our student through improved facilities. It modifies and simplifies the institute Management Information System (MIS) handling evaluation of best practice workflow information management and operations. It also improves efficiencies and effective operations. It supports and operate within the strategic goals of Institute. It gives security, legal and regulatory needs. It is established Management Information System with a proven record of success that provide secure and integrated technology resource for students, faculty and staff. And maintain the visibility. Computerized Management Information System (MIS) gives the institute authority sufficient time to plan and gives 100% satisfaction to the student. With computerized Management Information System (MIS), the institute has greater visibility into the day to day office operations and access to effective information for quick decision. It gives the ability to add new data between the data stores and processes for creation, modification, deletion and reading of information in the data store as needed. Different data is used to arrange the data and simplified task is done for user which will fulfill institute task. Computerized system will provide effective manipulation of data which will provide fast speed, accuracy in the student data. All the reports about student information are available in a single button click. By analyzing the past and current data future needs of the system is formed. Computerized system will handle large amount of data without affecting speed or efficiency. It gives quick reports. System will give the institute the correct and exact information for quick decision. A huge amount of data is analyzed within a minute. It gives enhanced communication complete reliability computerized system makes sure that the data is accurate, controlled and safe from data corruption. In a computerized Management Information System, the same basic components must exist, all of which must be recorded and properly processed to give the same results. Productive financial statements and reports. An individual must make the initial entry whether it is handwritten or typed into a computer. So just what is the difference, and what are the advantages? A major and very significant difference is 'integration.' When a transaction is entered in the computer, it is then carried to all parts of the system. This information will be used to update student fee reports, student administration reports and billing statements as well as the financial statement. In a manual system, this figure would have to be entered several times. In a computerized system, only one entry is needed and the computer would carry the figure to all the necessary components of the system. The second major advantage of a computerized accounting system is one of time and accessibility of information. Financial statements and reports can be obtained with more frequency and are therefore more useful to the client. Another key advantage to using a computer is flexibility. Information can be handled by computers in a very simple and straightforward manner, or the computers can be used to produce very sophisticated reports. The use depends totally on management and its needs.

1) Speed - Computer Management Information System is faster and efficient in processing of information where manual Management Information System is slower and time consuming process. Documents and reports can be generated automatically, at the press of a button.

2) Accuracy - There is less room for errors as only one entry is needed for each transaction rather than two (or three) for a manual system. Computerized Management Information System considerably reduces (if not eliminates) mathematical errors.
1) Efficiency – In computerized Management Information System better use is made of resources and time. Comparatively manual Management Information System is less efficient than computerized Management Information System.

2) Integration – Computerized Management Information System is designed to automate and integrate all the business operations, such as student, finance, purchase, inventory and manufacturing. When a transaction is entered in the computer, it is then carried to all parts of the system. In a manual system, this figure would have to be entered several times. In a computerized system, only one entry is needed and the computer would carry the figure to all necessary components of the system.

Machine dependence – Computer Management Information System is completely dependent upon machines. Manual Management Information System is not depending upon machines for any work.

Decision making – Using computerized Management Information System management access complete and critical information instantly. So they can take decisions quickly. On the other hand, in manual system it takes more time to access information and take decisions.

Cost – High cost is required for developing computerized Management Information system, training for personnel, purchasing computers etc. Comparatively manual Management Information System can be implemented in low cost.

Flexibility – Another key advantage to using a computerized Management Information system is flexibility. Information can be handled by computers in a very simple and straightforward manner, or the computers can be used to produce very sophisticated reports. Use depends totally on management and its needs.

Data storage – Computerized Management Information System has the ability to handle volumes of transactions without compromising on speed or efficiency. Manual Management Information System cannot handle a large volume of data with speed and accuracy.

Generation of accounting documents – Computerized Management Information System mechanically and fast generates accurate various documents like Students information, receipts, invoice numbers, purchase orders, payroll documents and statement counts. In manual system, to generate these documents, clerical staff must perform a series of steps as cycle.

Stacks of paper ledger - In manual system Management Information System constructs stacks of paper ledgers to store several years of financial information. But in computerized system they can store several years of financial information with relative ease, in computer

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OCTOBER, 2012

Obviously both computerized and manual Management Information System have advantages and disadvantages but they perform the same task, and the final result is the same. The main differences between them are the costs, speed and mobility. This system allows Institutes to record transactions accurately and generate Student reports quickly for management review. While the functions of manual Management Information System have changed, it will never go away completely.

VIII. Data Analysis and Interpretation:

Table 1: Work Carried Out with Help of Computerized MIS in existing Systems

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>No. of Management Institute</th>
<th>Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>No. of Management Institute computerized</td>
<td>02</td>
<td>14%</td>
</tr>
<tr>
<td>2.</td>
<td>No. of Management Institute Non computerized</td>
<td>12</td>
<td>86%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

(Source: Primary Data)

Graph No. 1

(Source: Table 1)

Table 2: Present status of computerization

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>No. of Management Institute</th>
<th>Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fully Computerized</td>
<td>02</td>
<td>14%</td>
</tr>
<tr>
<td>2.</td>
<td>Partially Computerized</td>
<td>03</td>
<td>22%</td>
</tr>
<tr>
<td>3.</td>
<td>Not Computerized</td>
<td>09</td>
<td>64%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

(Source: Primary Data)

Graph No. 2

(Source: Table 2)
<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>No. of Management Institute</th>
<th>Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No. of mgt Institute suffices report requirement (Yes)</td>
<td>1</td>
<td>7%</td>
</tr>
<tr>
<td>2</td>
<td>No. of mgt Institute suffices report requirement (No)</td>
<td>13</td>
<td>93%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>14</td>
<td>100%</td>
</tr>
</tbody>
</table>

(Source: Primary Data)

**Graph No 3**

<table>
<thead>
<tr>
<th>No.</th>
<th>Opinion</th>
<th>No. of data Analysis</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do Not Suffices</td>
<td>9</td>
<td>65</td>
</tr>
<tr>
<td>2</td>
<td>Suffices to some extent</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>3</td>
<td>Completely Suffices</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>14</td>
<td>100</td>
</tr>
</tbody>
</table>

(Source: Table 3)

**Graph No 4**

Table 4: Report generated by existing MIS Suffices gives purpose of controlling bodies

- It is observed that, majority of the respondents said that very few work that is only 14% work is performed with the help of computerized MIS in existing system.
- It is found that, majority of the respondents (64%) said that they have not operational system.
- It is observed that majority of the respondents 93% said that existing MIS do not suffice report requirement.
- It is found that different reports are required like student fee report, student attendance report, employee detail report, employee attendance report etc.
- It is found from discussions with various department staff, that in the existing system every time it is necessary to search data and form the report.
- It is observed that institute maintains 17 different modules.
- It is found that most of the respondents (86%) said that by using fully computerized system, all the problems faced by end users can be solve completely.
- While testing of fully computerized system, it is found that majority of the respondents (86%) said they are satisfied on user friendliness of the candidate system.
- It is found that majority of the respondents (86%) said that real/live is partially accepted properly by the computerized system.

**X. Conclusions:** It is concluded that less than 14% work is carried out with the help of computer in the existing Management Information System i.e. it is not fully computerized.

- Management Information system uses MS-Access Oracle Sql server and any other software to maintain data in the existing system.
- The institute does not use any Ready-to-Use software to maintain Management Information system work because those software's are not compatible with existing Management Information system.
- There was a need to develop the new fully computerized system to eliminate the problems of partially computerized system and which is well-tuned to the existing system.
- It is not possible in the current system that any new report automatically adds to the Management Information system.
- In semi-computerized system every time it has been necessary to post data to the various files and calculate new reports as new data are entered.
- In some cases Institute staff forget to enter the data to the particular file after some work. They realize this error in report.
- Institute staffs have to spend much of their time filling out files manually. Every time they have to give the formula for any type of calculation.

**Findings:**

On the basis of data and onsite observations researcher has following findings. By wing the data analysis, interpretation and onsite observations the researcher observed the wing findings:

It is found that institute has been using completely paper based system.
It is concluded that different problems faced by Institute staff while working with the existing system, can be solve completely by using fully computerized system. Institute staff is interested in implementing of fully computerized system to maintain Management Information System.

Overall understanding level of all the components of the candidate system is easy that means fully computerized system is very easy to understand.

Majority of the respondents are satisfied with the user friendliness of the fully computerized system that is candidate system can be easily operated by any new user.

While testing of fully computerized system real or live data of the management institute is properly accepted by the system i.e. candidate system is suitable for the existing system.

Suggestions:

Existing Management Information Systems suffer from many limitations viz. more possibility of errors in report, secrecy is not be possible, handling bulky books of records become inconvenient, delay in getting any desired information, delay in preparing final reports at the end of year, daily reporting of financial status not possible etc. To eliminate these limitations management institute is suggested to use the fully computerized Management Information system which is designed and developed as per Institutes requirements; therefore it cater all the needs of existing system. Institute will get revolutionary advantages of computerized Management Information system as compared to existing system viz. less errors, bulletproof secrecy possible, no problem of handling bulky books of records. It is planned and integrated system for gathering relevant data and supplied to the concerned executives it gives right information to right people at right time. It assembles stores retrieve evaluates process and disseminates information. The benefits of computerized Management Information System are so strong that institute is suggested to go for computerization.

References: