**MACHAKOS UNIVERSITY**

**DEPARTMENT OF COMPUTING AND IT**

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**CAT II**

1. **Demonstrate the change effect an information system has to an organization**
2. **Organized data**

A brilliant organization is vital for any company that is trying to be successful. The acquisition of a great information system ensures that your business will be organized, and you will be able to make decisions and solve problems faster. The advantage is that the employees will be able to gain access to all the information and as a result, improve their productivity. A good information system has a [Management Information System](https://mis.eller.arizona.edu/what-is-mis) (MIS) feature, which helps in organizing your database. The MIS can offer you past, current and present information by using all resources in the system. If your business lacks proper data organization, you are likely to have severe problems and a lot of useless data.

1. **Avoid any form of crisis**

In the past, businesses could not analyze the share market and their level of organization. As a result, there was a lot of crisis in the business sector. Making use of an information system enables your company to [analyze stocks](https://www.nasdaq.com/investing/dozen/) and check on their previous performance to predict any form of disaster. The MIS can keep track of all margins and profits so that your business can have all the necessary data for anticipating and invading a crisis.

1. **Storage of information**

Information systems are convenient because they can help you store data that you will need in a few years to come. For example, newspaper editing companies keep their photos safely in an archive which can be opened to reveal pictures if need be. Saving your data manually using [hard copy](https://www.datadimensions.com/services/hard-copy-management/) means will waste a lot of time since searching for something will be hectic. A good information system groups your data according to date and time, making the searching process convenient. All information is stored in a comprehensive database that is accessible to you 24 hours a day.

1. **Easy decision making**

Without a functional information system, the [decision-making process](https://online.csp.edu/blog/business/decision-making-process) wastes so much time and energy. The decisions and strategic plans made by the management of an organization dictate the level of success. The management of your company can use information systems to come up with strategic plans and make best decisions when it comes to taking business steps. A good information system evaluates information from all the company’s sources and manages to come up with the best conclusion in regards to the current economy. A decision like purchasing [performance appraisal software](https://www.bamboohr.com/performance-management/) would be a good one for any company because it will help in motivating your employees and as a result, they will become more efficient and productive. If you do not do that, you will waste time and energy making decisions that may mess up your brand.

**b) An organization you are working for installed Information System to achieve various strategic goals. The management want to know whether the system has had any value to the company. Determine the analysis model to use and explain how the model can be used to address the management's problem.**

The analysis model to use to address the management’s problem is management information system

Management Information System (MIS) provides information for the managerial activities in an  
organization. The main purpose of this research is, MIS provides accurate and timely information necessary  
to facilitate the decision-making process and enable the organizations planning, control, and operational  
functions to be carried out effectively. Management Information System (MIS) is basically concerned with  
processing data into information and is then communicated to the various Departments in an organization  
for appropriate decision-making. MIS is a subset of the overall planning and control activities covering the  
application of humans, technologies, and procedures of the organization. . The information system is the  
mechanism to ensure that information is available to the managers in the form they want it and when they  
need it.

MIS provides several benefits to the business organization: the means of effective and efficient coordination between Departments; quick and reliable referencing; access to relevant data and documents; use of less labor; improvement in organizational and departmental techniques; management of day-to-day activities (as accounts, stock control, payroll, etc.); day-to-day assistance in a Department and closer contact with the rest of the world. MIS provides a valuable time-saving benefit to the workforce. Employees do not have to collect data manually for filing and analysis. Instead, that information can be entered quickly and easily into a computer program. As the amount of raw data grows too large for employees to analyze, business analysts can build programs to access the data and information in response to queries by management. With faster access to needed information, managers can make better decisions about procedures, future directions, and developments by competitors, and make them more quickly. We are living in a time of great change and working in an Information Age. Managers have to assimilate masses of data, convert that data into information, form conclusions about that information and make decisions leading to the achievement of business objectives. For an organization, information is as important resource as money, machinery and manpower. It is essential for the survival of the enterprise.

should also fulfill a number of other purposes:

* It should provide a basis to analyze warning signals that can originate both externally and internally; this is the main function of data base
* It should automate routine operations thus avoiding human work in the  
  processing tasks;
* It should assist management in making routine decisions
* It should provide the information necessary to make non-routine  
  decisions;
* It should serve as a strategic weapon to gain competitive advantages.

CONCLUSION:  
MIS differ from regular information systems because the primary objectives of these systems  
are to analyze other systems dealing with the operational activities in the organization. In this  
way, MIS is a subset of the overall planning and control activities covering the application of  
humans, technologies, and procedures of the organization. Within the field of scientific  
management, MIS is most often tailored to the automation or support of human decision  
making. Management information systems (MIS) make it possible for organizations to get  
the right information to the right people at the right time by enhancing the interaction between the organization’s people, the data collected in its various IT systems, and the procedures it uses. It brings together the raw data collected by the various business areas of the organization, which, while useful for specific functions such as accounting, does not provide, by itself, information that can be used to make decisions. As organizations grow, MIS allows information to move between functional areas and departments instantly, reducing the need for face-to-face communications among employees, thus increasing the responsiveness of the organization.

c**) Propose FOUR pitfalls that an organization should avoid to enable successful implementation of information system.**

1. **Planning with the Wrong Information**

Beware the trifecta of bad information that can plague planners: assumptions, anecdotes, and bad research. Assumptions are insidious little things that can blind you to the most obvious and important questions: Is there actually a demand for this product? Is this design really feasible? Do I really want to reach this goal? Does this project actually benefit the business?  
  
When it comes to anecdotes, remember this basic rule: anecdotal evidence is not evidence at all. Do actual research to get real evidence. And make sure that the research you do gets you the right data. Irrelevant data may be accurate, but it's not helpful. Your target market may enjoy dining out; but if they're also health-conscious retirees on a limited income, your upscale gourmet burger restaurant will fail. Make sure that your research connects directly with your defined purpose in order to get the information you really need.

1. **Planning Without a Clear Purpose**

Before you can plan well, you need to know why you're planning. Without a defined purpose, you won't be able to determine what fits into the plan and what doesn't. If you're working on a marketing plan, for example, you need to know if the purpose is to generate more leads, more sales, more exposure, or more engagement with current customers.  
  
The more specific the purpose, the more you can customize the plan for the purpose, which makes it more likely that your plan will be successful.  
Avoid planning without purpose by making a clearly defined purpose the first requirement of every plan, every time.

1. **Planning Too Late**

Some possibilities require quick action; if you wait too long to make a plan, you can miss out. Planning too late or strategizing for too long might cost you the opportunity, and your plan will simply become a memoir of what-might-have-been.

To avoid this pitfall, set a basic protocol to follow for immediate-action possibilities. For example, establish an acceptable threshold for risk, set your priorities by order, and create a basic template to use when opportunity knocks. If a possibility meets your basic criteria, you can go ahead and grab it, filling in the blanks of your planning template as you move forward.

1. **Planning Too Much**

A good plan includes a clear purpose as well as behavior guidelines and the steps needed to accomplish the purpose. It might also include estimated timeframes, needed resources, expenses, and potential obstacles. Too little information makes a plan pointless; too much detail makes it burdensome. The key to a functional plan is to include enough information, and then stop.

Remember that a plan gives you a starting point, but it can't predict the entire journey. It's a map, not a crystal ball. As you use the plan, you'll need to adjust when you encounter the unexpected (which you should expect). The more detailed a plan, the less flexible it becomes. Try to build a plan that gives you enough information to see the general lay-out of the road, but not so much that you're counting mile markers and planning pit stop purchases before you ever start the engine.

**d) An e-commerce system is required by an upcoming online shop. propose the appropriate database model to be used for this system.**

The appropriate database model to use for an upcoming online shop is a network model.

A network database model is a database model that allows multiple records to be linked to the same owner file. The model can be seen as an upside down tree where the branches are the member information linked to the owner, which is the bottom of the tree. The multiple linkages which this information allows the network database model to be very flexible. In addition, the relationship that the information has in the network database model is defined as many-to-many relationship because one owner file can be linked to many member files and vice versa. The reason to consider this type of model is that it is easier to navigate and search for information because of its flexibility also  For more complex data, it is easier to use because of the multiple relationship founded among its data.