Definition and Types of Business Information Systems

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INTRODUCTION

As stated information is generated through the transformation of data. This can be achieved using a number of different transformation or data processes. Some examples of data processes include aggregating which summarizes data by such means as taking an average value of a group of numbers. Classification places data into categories such as on-time and late deliveries. Sorting organizes data so that items are placed in a particular order, for example listing orders by delivery date. Calculations can be made on data such as calculating an employee's pay by multiplying the number of hours worked by the hourly rate of pay. Finally data can be chosen based on a set of selection criteria, such as the geographical location of customer.

Definition of business information systems

A system can be defined as a collection of components that work together towards a common goal. The objective of a system is to receive inputs and transform these into outputs. In the previous section 'defining data and information' the use of a transformation process was used to explain how data is converted into information. Not every system has a single goal and often a system contains several subsystems with sub goals, all contributing to meeting the overall system goal. For example the finance, operations and marketing areas of an organization should all have goals which together help to achieve overall corporate objectives. It can be seen that in systems data are used as the input for a process that creates information as an output. In order to monitor the performance of the system, some kind of feedback mechanism is required. In addition, control must be exerted to correct any problems that occur and ensure that the system is fulfilling its purpose. There are thus five components of a generic system in terms of input, process, output, feedback and control.

DESCRIPTION

Closed loop systems can have two types of control mechanism referred to as feedback control and feed forward control. Feedback control systems generally provide a way of ensuring a system is under control. Negative feedback is when actions are taken to reverse any differences between desired and actual outputs.

Types of business information systems

With the previous definitions of information and systems we can now define a business information system as a group of interrelated components that work collectively to carry out input, processing, output, storage and control actions in order to convert data into information products that can be used to support forecasting, planning, control, coordination, decision making and operational activities in an organisation. In terms of the components that undertake this activity, they can be classified into five basic resources of people, hardware, software, communications and data. People resources include the users and developers of an information system and those who help maintain and operate the system such as IS managers and technical support staff. Hardware resources include computers and other items such as printers. Software resources refer to computer programs known as software and associated instruction manuals. Communications resources include networks and the hardware and software needed to support them. Data resources cover the data that an organisation has access to such as computer databases and paper files.

In most organizations Business Information Systems (BIS) make extensive use of information technology, such as personal computers. The reasons why computerized BIS have become widespread are evident in their advantages such as speed, accuracy and dependability. They also have a high degree of flexibility due to their ability to be programmed to carry out a wide variety of tasks. There are, however, some disadvantages to BIS such as their lack of creativity that humans possess and the difficulty of incorporating other factors into their decision making such as innovation and intuition.

CONCLUSION

An open loop control system is one that has no way of ensuring objectives are met for a process. This means they are unsuitable

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in an organizational context because of the complexity of the environment in which organizations exist. Thus open loop systems would only be successful in attaining a system's objectives in cases where we know with certainty the events that would take place during the system's process.