5.Information technology management

IT management is the discipline whereby all of the information technology resources of a firm are managed in accordance with its needs and priorities. These resources may include tangible investments like computer hardware, software, data, networks and data Centre facilities, as well as the staff who are hired to maintain them.

Managing this responsibility within a company entails many of the basic management functions, like budgeting, staffing, change management, and organizing and controlling, along with other aspects that are unique to technology, like software design, network planning, tech support etc.

5.1 Overview

The central aim of IT management is to generate value through the use of technology. To achieve this, business strategies and technology must be aligned.

IT Management is different from management information systems. The latter refers to management methods tied to the automation or support of human decision making. IT Management refers to IT related management activities in organizations. MIS is focused mainly on the business aspect, with strong input into the technology phase of the business/organization.

A primary focus of IT management is the value creation made possible by technology. This requires the alignment of technology and business strategies. While the value creation for an organization involves a network of relationships between internal and external environments, technology plays an important role in improving the overall value chain of an organization. However, this increase requires business and technology management to work as a creative, synergistic, and collaborative team instead of a purely mechanistic span of control.

Historically, one set of resources was dedicated to one particular computing technology, business application or line of business, and managed in a silo-like fashion. These resources supported a single set of requirements and processes, and couldn't easily be optimized or reconfigured to support actual demand. This led

technology providers to build out and complement their product-centric infrastructure and management offerings with Converged Infrastructure environments that converge servers, storage, networking, security, management and facilities. The efficiencies of having this type of integrated and automated management environment allows enterprises to get their applications up and running faster, with simpler manageability and maintenance, and enables IT to adjust IT resources (such as servers, storage and networking) quicker to meet unpredictable business demand.

5.2 IT infrastructure

The term IT infrastructure is defined in a standard called Information Technology Infrastructure Library (ITIL) v3 as a combined set of hardware, software, networks, facilities, etc. (including all of the information technology), in order to develop, test, deliver, monitor, control or support IT services. Associated people, processes and documentation are not part of IT Infrastructure.

ITIL documents define best practices and accepted techniques in the information technology community. This set of guidelines is widely used in both the public and private sector, essentially providing companies with a blueprint on how to organize and manage information technology operations at the company. The library is constantly updated to ensure accuracy and to include emerging technological advances. ITIL provides a systematic and professional approach to the management of IT service provision, and offers the following benefits:

1.Reduced IT costs

2.Improved IT services through the use of proven best practice processes

3.Improved customer satisfaction through a more professional approach to service delivery

4.Standards and guidance

5.Improved productivity

6.Improved use of skills and experience

7.Improved delivery of third-party services through the specification of ITIL or BS15000 as the standard for service delivery in services procurements.

5.3 IT managers

IT managers have a lot in common with project managers but their main difference is one of focus: an IT manager is responsible and accountable for an ongoing program of IT services while the project manager's responsibility and accountability are both limited to a project with a clear start and end date.

Most IT management programs are designed to educate and develop managers who can effectively manage the planning, design, selection, implementation, use, and administration of emerging and converging information and communications technologies. The program curriculum provides students with the technical knowledge and management knowledge and skills needed to effectively integrate people, information and communication technologies, and business processes in support of organizational strategic goals.

5.4 Graduates should be able

1.to explain the important terminology, facts, concepts, principles, analytic techniques, and theories used in IT management.

2.to apply important terminology, facts, concepts, principles, analytic techniques, and theories in IT management when analyzing complex factual situations.

3.to integrate (or synthesize) important facts, concepts, principles, and theories in IT management when developing solutions to IT management multifaceted problems in complex situations.

The importance of IT management is to understand the managing data. There are also difficulties IT managers overcome. The amount of data is increasing, most of the data in is separated between the organizations and collected by different departments. They may not be using the same method or procedure. Data security, quality and integrity is most informant in receiving information. The sources have an impact also on the sources obtained; they may be internal or external. When the information structures do not transfer properly with each other, that can result in unreliable data. An important part to understand in an IT management is Data

Governance. It is an approach to managing information across the entire organization or company. Many will also need to know master data management, which is a process that spans all of the companies processes and business. Without a structure your company will not be able to function properly. Applying these processes in Data bases, it your job to be able to communicate with other departments systems and develop precise communication and holding your organization accountable of certain data issues. Your design and programs helps increase design and technical knowledge throughout the business.