MANAGEMENT AND INFORMATION SYSTEMS

MAHMOUD ALRANTISI

Faculty of Management, Alazhar University, Gaza, Palestine
E-mail: mahmood.rantisi@gmail.com

Abstract - The study aims to show How could Information systems and technologies change the management process, and what are the main roles played by the information systems to achieve the goals of the firms in an effective and efficient way. To achieve this objective; the researcher tried to explore the origin of information systems, and how it interacted with management practices from different literatures.

Keywords - Management, Information Systems, Technologies, Management Functions.

I. INTRODUCTION

While most organizations seek to develop more strategic systems management systems to achieve its goals through what can be called a set of tactics or short-term policies.

Organizations that wish to achieve competitive objectives and strategic information technologies to keep up with developments in the business environment and achieve greater success in the future need to review their old strategies or develop new strategic plans that take into account the needs and technological requirements of MIS (Braglia, & Frosolini, 2014)

The main thing distinguishes the science of MIS from other sciences such as information technology, accounting information systems, GIS and other information systems is that they address administrative processes using computer and information technology and specialize only and deal with concepts, issues and administrative problems and thus the entrances of management information systems emanate from A branch of management such as planning, organizing, directing, auditing or one of its functions such as accounting, finance, production, personnel, marketing, sales and other administrative and executive functions at the senior management level Middle management, or lower management (Chaffey, & White, 2010) (Galliers, & Leidner, 2014).We can see the results of massive spending of businesses around the world every day on IT and conducting plans using the newest technologies and help organisation in achieving its goals in the best ways (O'Brien, & Marakas, 2006).

Businesses continuously seek to improve the efficiency of their operations in order to achieve higher profitability. So this paper aims to discuss the origin of Information Systems and its roles in Management and achieving the proposed goals inside businesses in best ways.

II. INFORMATION SYSTEMS.

Computer technology appeared in the administration at the end of 1950. The first applications to emerge were the automation of accounting software such as payroll, accounts receivable and payables. During 1960, computer technology in management was devoted to industrial applications such as inventory system, production control system, purchase order system, consumer system. The automation of these applications has increased the savings of reducing costs by downsizing(Chaffey, & White, 2010).

However, by the end of this decade it was clear that manufacturing production in the United States recorded a 2% decrease in employment only due to automation(Land, 2018).

At the end of the 1960s and early 1970's, computers in the organizations were considered research and development phenomena. The cost of information systems was not strictly monitored at that stage, so researchers were allowed to experiment regardless of cost to see how much The business sector benefits from automation and information systems. The research and development period is now over (Olson, 1985).

In the mid-1970's, managers of business organizations faced many events and obstacles to tighten control over the use of MIS (Olson, 1985).

At the beginning of the 1980s. The business sector began to look more closely at the cost of information systems, which had been inflated over a relatively short period of time. Organizations were now looking at how to use MIS as a strategic tool rather than as a tool for carrying out administrative tasks. And the use of information resource management (IRM) with strategic computing to reflect the top-level management in the account (Olson, 1985)(McNurlin, & Sprague, 2001).

Today most business organizations insist that the analysis and design of management information systems contributes directly and effectively to the achievement of the organization's objectives by identifying the technological requirements and selecting the appropriate management information system for the organization based on the strategic planning process of the organization as a whole(McNurlin, & Sprague, 2001).

III. WHAT'S INFORMATION SYSTEMS

Information systems are defined as systems consisting of a group of people, data records, and some manual and non-manual processes. These systems generally address data and information for each system, and can be defined as a set of interrelated elements to collect, process, store and distribute information on a particular subject Systematically, to support organization, control, analysis, and the formation of a clear current and future perception of the subject under discussion (Talón-Ballestero, González-Serrano, Soguero-Ruiz, Muñoz-Romero & Rojo-Álvarez, 2018).

Information systems are a set of programs that are used to archive, manage and organize data, and process them with specific procedures established by the organization's workflow mechanism to obtain the final outputs. Information systems are very different from information technology. Information systems use information technology Which was created to serve its work (Talón-Ballestero, et. Al, 2018).

The emergence of information science as one of the branches of computer science, in order to try to understand and understand the philosophy of IT management within organizations and institutions of all kinds, and then evolved to become an area in itself in management, and is an important focus of research in management studies, In major universities, and business schools around the world (Barata,& Cunha, 2017).

Information systems along with information technology, financial resources, raw materials and machinery are one of the five core resources available to corporate managers. He has established the position of head of the information department of many companies, which is equally important in many other positions such as CEO, Head of Finance, Operations, and Chief Technology(Laudon, & Laudon, 2015).

The development of information systems uses and manages the technical structure of information in the organization. Therefore, companies have shifted from dependence on production to reliance on knowledge in the information age that followed the industrial age. Thus, competition in the market has become the process and innovation rather than competition for products and production. On the process of production and services associated with them, so that the employees and their expertise and innovations of the largest property of the company in our time, and so that the owner of the institution to compete in the market, it has a strong IT base for the ability to innovate and development (Laudon, & Laudon, 2015).

IV. INFORMATION SYSTEMS AND MANAGEMENT PRACTICES

It is important to know how IT-based management systems have evolved so that we can manage information systems and information technology (IS / IT) more efficiently and effectively in the future (Naser, & Al Shobaki, 2016).

Organizations that wish to achieve competitive objectives and strategic information technologies to keep up with developments in the business environment and achieve greater success in the future need to review their old strategies or develop new strategic plans that take into account the needs and technological requirements of MIS (Schultze, & Leidner, 2002).

There are a number of important strategic factors that affect the efficiency and continuity of the use of IT / IT. The relative importance of each of these factors varies from time to time and from one organization to another. These factors are (Laudon, & Laudon, 2015):

- Technological possibilities availableEconomics in the use of technology
- Practical applications are available
- Existing skills and capabilities to develop and use applications
- Pressure organizations or industry to develop performance
- The ability of the organization to make the appropriate decision to develop IS / IT and related resources.

These factors, which are not exhaustive and may appear in other forms, are actually increasing constant stress as a prerequisite for the success of MIS. The use of IS / IT is a degree of sensitivity, complexity and strategic requirements as is the case in administrative decision making at the strategic level(Laudon, & Laudon, 2015).

Relationship between Management functions and Information:

Planning is primarily based on the availability of the greatest amount of information reflecting a set of facts, figures and future indicators that are the cornerstone of the organization. The information that the organization needs in the planning process can be assessed as follows (Laudon, & Laudon, 2015):

- Strategic information, which relates to the long-term policies and objectives of the enterprise for all functions of the organization
- Tactical information, which relates to how to manage and coordinate funding plans, strategies, production, marketing, and manpower.
- Technical information, which relates to the methods and procedures for the distribution of duties to individuals and the completion of tasks according to rules and policies
- Operational information, which relates to how individuals perform all functions in finance, production, marketing, and manpower functions
- External environment information, which is the external information that is related to the organization and obtained from its external environment such as internal and external trade laws, labor laws and regulations such as tax,

import and export regulations, investment instructions, inflation and unemployment information(Laudon, & Laudon, 2015).

The size and quality of the organizational structure affects the size and quality of the information it contains. The large organizational structure needs enormous information, the small organizational structure does not absorb large information, the organizational structure of centralization and the rigidity hinders the movement of information. The organization structure needs to have clear and accurate information about all the functions in order to expand the administrative structure and distribute functions among departments in a way that can be organized from achieving its objectives(Naser, & Al Shobaki, 2016).

Leaders and heads of the tactical management level translate the plans, strategies and policies prepared by the senior management into executive and operational programs that are implemented by the technical and operational staff. This means that they are the link between them, which requires a large volume and a specific amount of information to carry out this task successfully.

The control process is fully based on information, since actual performance information needs to be compared to plan information to detect deviations. Without this information, this function will not succeed in correcting planning.

The decision maker needs to choose between a set of alternatives related to the subject matter of the decision. Each alternative must have a large amount of accurate and consistent information so that the decision maker can compare and judge the choice of the appropriate and appropriate alternative (Laudon, & Laudon, 2015).

As well as all financing activities, financial and investment planning and financial statements based on information, Also recruitment needs information regarding recruitment, recruitment, training, qualification and sustainability (Talón-Ballestero, et. Al, 2018).

DISCUSSION

Information systems and technologies are some of the most important tools available to managers for achieving higher levels of efficiency and productivity in business operations, especially when coupled with changes in business practices and management behavior.Information systems and technologies are a major enabling tool for firms to create new products and services as well as entirely new business models.A business model describes how a company produces delivers and sells a product or service to create wealth (Land, 2018).

When a business really knows its customers and serves them well, the way they want to be served, the customers generally respond by returning and purchasing more, This raises revenues and profits, Likewise with suppliers the more a business in gauge is its suppliers the better the supplier is going to provide vital importance inputs. This lowers costs, how to really know your customers or suppliers is central problem for businesses with millions of off-line and online customers (Galliers, & Leidner, 2014).

Business firms also invest in for information system and technologies because they are necessities of doing business. Sometimes these necessities are driving by in the industry-level changes (Laudon, & Laudon, 2015).

The fully understand information systems you will need to be aware of the broader organization, people, and information technology dimensions of the system. The field of management information systems tries to achieve this Broader information systems literacy. MIS deals with behavioral issues as well as technical issues surrounding the development, use, and impact of information systems used by managers and employees in the firm(Laudon, & Laudon, 2015).

CONCLUSION

Each of the major business for girls requires an understanding of information systems.Accountant need to understand future changes in the hardware software and network security essential for protecting the integrity of accounting systems along with the new technologies for reporting in on line and wireless business environments. Finance managers need to understand the future IT changes financial database systems and online trading systems for managing investments and cash. Marketing majors required and understanding of marketing database systems and systems for customer relationship management as well as win based systems for online sales. Operations management careers need knowledge of changing hardware software and data based technology is used in the production and services management and an in-depth understanding of how enterprise-wide information systems for production management supplier management sales force management and customer service and ship management achieve efficient operations. Carriers in management and human resources need knowledge of how hardware and software can make management and more efficient in hand score donation and achieve major business objectives.

Information systems majors clearly need to understand the central ruled that the bases play in managing information resources of the firm and how new hardware and software technology is Ken in hands business performance. They also need schools for leaving the design and implementation of new management systems working with other business professional at professionals to ensure systems meet business objectives and working with soft-ware packages she is providing new system solutions.

Information systems are a foundation for conducting business today in many industries survival and even existence is difficult without extensive use of information technology

Businesses today use information systems to achieve six major objective is operational excellence, new products services, and business models, customer supply of intimacy, improved decision making, competitive advantage, and date today survival.

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