Developing Business Intelligence Model in Higher Education Sector

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Abstract
It is no longer a secret to anyone that the use of modern technology, especially the field of computers, gave people the tools to read and analyze data and statistics. To the appropriate estimates in this regard that these results and those estimates cannot be interpreted and modern technology and intelligence is up to the human, and that human cannot be analyzed and interpreted security during the intelligence of business, which means that Be used by man to invest all the resources around him effectively to achieve the best achievements in business.
The study aimed to identify the concept of business intelligence and terminology related to educational sector, in general, and in particular, identifying key components of the risk-mitigating structure, Business intelligence system in the field of educational organizations.

Keywords: Business intelligence model, Higher education sector

Introduction
The present century pays great attention to the challenges and facing the quality of the system accelerating information systems, information technology, communications, the opening up of global markets, Liberalization, the growing role of the knowledge economy, increasing competition, the movement of entrepreneurship, and joint ventures. Smart organization is not only flexible to meet predictable changes, but it is also capable of Responding to changes and adapting to unexpected changes quickly and adequately. Massive developments in communication and information technology have led to the emergence. Many challenges are represented by a number of developments and changes at different levels and huge Economic, social and technological development, and to work in a dynamic and interrelated environment Complexity, globalization of business and market processes, accelerated technological development and openness, Increasing and diversifying consumer needs, as well as increasing awareness and awareness of the advantages and characteristics, The services they are offered, forcing business organizations to respond quickly challenges, and is forced to abandon traditional methods of management and adopt methods ,Policies that is better able to cope with changing risks, challenges and needs, and more Opportunities, and this requires boldness and accuracy in making decisions based on scientific grounds.
Exploitation a solid methodology based on knowledge-based knowledge that enhances

the role of decision-makers, it requires the provision of decision-support systems, intelligence and modern business processes to deal with information and that they should be made available in the quantity and quality required

Business Intelligence Systems

Business Intelligence BI is a set of theories, methodology, techniques and tools for converting raw data into useful information that is meaningful for business purposes and analysis.

Business Intelligence Technology (BI) has the ability to handle data, data and even large and large volumes to help organizations and companies identify, develop and benefit from business opportunities, implement effective strategies and make the right decisions.

Business intelligence systems are defined as a set of physical components, tools and rules Data analysis tools and methodologies are designed to facilitate data access from during the various analyzes, it briefly converts the data into knowledge and then into decisions and ultimately to real actions on the ground.

The main objective of business intelligence is to provide the possibility to interpret and analyze large data to access information that helps to create opportunities and then apply effective strategies based on business analysis, which will enrich the organization's work with competitive marketing features with long-term strength and stability, Business intelligence techniques provide a vision of the movement and processes of past, present, and business future. Business intelligence processes and techniques include: Reporting, Online analytical analysis, Data mining, Process mining, Complex event processing, Business performance management, Evaluation benchmarking, Text mining, Predictive analytics and Perspective analysis

Components of Business Intelligence Systems

Business intelligence systems consist of four components:

i. Data warehouse; a huge repository of data Historical stored in a structured manner.

ii. Business Analytics Business: Analytics represents tools that work on Convert data to information and then to find out.

iii. Business Performance Management: Control and measure the performance of the organization compared with the main and approved performance indicators.

iv. Graphical User Interface: facilitates the communication with the system and the use of dashboards.

Components of Business Intelligence Systems

A. Decision support system (DSS):

Decision support systems were a harbinger of development in information technology the 1970s, and developed during the eighties and was not that growing up, the same artistic revolution as much as it was a natural development of the way computers are used, is known as support

The decision as a process provides the environment, conditions, mechanisms and techniques that serve the industry and take a good decision is applicable, and decision support systems represent a system based on technology Traditional and smart computers and methods to support the decision maker in dealing with;

1. Semi-structural and non-structural problems to reach a single decision or group of alternatives

2. Decision support systems, their characteristics and capabilities. Properties and capabilities

It is the cornerstone of the decision support system and forms the basis for diagnosing reality, analyzing problems, identifying

current and future opportunities, evaluating and recommending appropriate proposals.

This system relies on the "Decision Support System Database" A set of current or historical data that has been organized for easy access through a number of applications. "

The database management system in the decision support systems maintains the integrity of data by performing operations that preserve the novelty of such data, and also stores historical data,

Decision support systems do not create or update data. This is not their objective, but rather the use of existing organizational data (such as sales and production) enabling individuals and groups to make decisions based on actual circumstances.

A-1. Decision support system characterizes:

1 - Dealing with problems structured, semi-structured and unstructured.

2 - The possibility of supporting managers at the level of senior and middle management.

3. Ability to support at the individual or team level and at all stages of decision-making.

4. It is flexible and easy to adapt.

5. Ease of use, construction and maintenance.

6. Has the ability to model and contain different models and the ability of their departments.

7. Dealing with the mechanisms and methods that generate knowledge and the ability to manage them in favor of beneficiary.

8. Tremendous ability to speed interaction with decision makers.

9. Reduce the cost of the organization

B. Executive Support System (ESS)

The Strategic Level Information System is designed to assist senior management in making unstructured decisions through advanced designs and communications.

It is a system that provides information to managers in senior management Helps monitor the performance of the organization, Track the activities of competitors, Identify opportunities.

And support for solving non-structured problems.

B-1. Executive Support Systems Benefits

Assist senior management executives to address unstructured problems when they occur at the strategic level of the organization, assisting in providing data from internal sources to identify strengths and weaknesses. It can provide various tables and drawings, helping the management monitor standard success factors such as: determining profitability, financial ratios, market share, and benchmarking against the core standards of the facility.

Assisting in the provision of external data through environmental survey via business intelligence through the Internet, to identify environmental changes and identify opportunities and environmental threats that can face the organization

C. Knowledge Management Systems

Knowledge Management Systems (KMS) are a category of information systems that deal with corporate knowledge management, as IT-based systems have been developed to support and support institutional processes in terms of knowledge creation, inventory recovery, transport and application. They are electronic systems that assist knowledge management and its applications in organizations, through which key knowledge management functions are performed. It is defined as information systems pro network of knowledge workers in the creation, construction, identification, collection, selection, organization, structure, distribution, refining, browsing and application of knowledge

With a view to facilitating the dynamic organizational learning, organizational effectiveness and goal of knowledge management systems not only to manage all existing knowledge within the organization, but to manage and make the right specific knowledge readily available to help staff create, store and share within the organization and thus improve individual and organizational performance. One of the widely distributed types of knowledge management systems:

A. Document Management System (DMS)
Documents relating to all the activities and operations of the Foundation constitute a large part of the Organization's reporting databases. Orders, invoices, queries, complaints, technical drawings of components and parts, price lists, product ranges, legal and safety regulations are all facts of the life cycle of each organization. Where these documents can also be considered as tools to facilitate business transactions, companies are increasingly looking for as many appropriate methods and techniques as possible to ensure that the business process is fully documented. Document management systems (DMSs) are a technique that can help store and distribute documents and inform people about the progress of the organization's activities and processes.

B. E-learning platform (e-LP)
The use of ICT to support and facilitate learning processes is usually known as e-learning. The e-learning platform has become the most acceptable solution for complex organizations and companies to develop new skills and knowledge individually or in collaboration with others

C. Virtual Human Resource Management System (VHRMS)
Human resource practices can make knowledge development and application easier. A virtual human resources management system can be considered an IT application for both networks and support when the activities of at least two individual actors are involved, but are usually collective. The Virtual Human Resources Management System (HRMS) is therefore characterized by a network structure based on the ICT Enrichment Partnership, which is used as a carrier to assist organizations in the development and recruitment of human resources. The virtual human resources management system encompasses a wide range of human resources retraining within organizations, such as professional development activities.

D. Knowledge Portal System (KPS)
The Knowledge Gate System is a web application that provides a unified way to access different sources of knowledge and these systems appear to be the best and fastest solution for knowledge and information exchange among employees. Knowledge Gate systems improve the distribution of knowledge within the entire organization and can be seen as an extension of the company's information gateway to knowledge management. A study analyzes the functions of knowledge gateways and classifies them into seven categories based on their core functions: heterogeneous database management and document types, structured access, custom interfaces, collaborative work, multi-level security, current time information, future auditing.

The Role of Business Intelligence in Education
Education has grown enormously in the present century; education mechanisms have developed very rapidly, exploiting the development of technology, increasing the productivity of education, becoming more enjoyable, increasing student interaction, and creating greater creativity. And provide effective means to help students learn more

easily. Modern education includes computers, CD-ROMs, the Internet as a great educational tool, and audio-visual media.

The impact of technology in education, even if the importance of technology in the field of education is mentioned, is that this importance is increasing year after year because of the speed of change and development in various fields. The importance of technology in education is as follows: Technology plays the role of mentor who directs the teacher of the scientific material of the student, And change from the old way of explaining and traditional teaching methods As the teacher or teacher takes days to search for information on a particular topic, the Internet takes only hours (or minutes) to get that information easily.

the use of technology in the treatment of scientific materials received by students has become imperative, as well as training them to professional use and try to make it a means to the student after graduating from school as a guide for him and Mina, as the public or private labor market has become a foregone conclusion to practice their work by technological means very sophisticated, And the disappearance of traditional methods, which will provide the student after coming to the labor market experience and a great future.

Conclusion

Technology in all its advanced means can radically change the educational level of the teacher and how to develop his personal abilities in the explanation and urge him to give a greater and easier opportunity to understand and receive the student of the scientific material, and this in turn will reflect on the development of the intellectual capacity of the student in addition to refining his talents and enjoyment of his subjects.

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