

The Strategic Use of The Decision Support Systems and Its Role in Acquiring the Competitive Advantage Between Libraries.

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Abstract:

The study aims to recognize the concept of decisions support system DSS in libraries and information centers and its relation to enhance the competitive advantage, the decision support systems DSS is considered as mean of developing the libraries and information centers, it is the research power center which help it in solving different problems that faced it particularly the complicated one.

The results are summarized that DSS use flexible methods to maintain its permanence and protect its place between different libraries and create the chances to create the capabilities the competitive advantage, that make the company do important thing better until it ensure a prominent position among its competitors, as it make the libraries recognize its strengths and weaknesses throughout information models presented to supreme management.

Keywords: decision supporting systems, libraries, information center, competitive advantage.

Introduction:

The prestigious position and quality of management and serving services and taking decisions is the most important practices that are focused by the manger in libraries and information centers, the human resources management (Recruitment, promoting, training....etc) or the administration (as planning, organizing, direction and control) or the artistic that is represented in different libraries services (as the acquisition, marketing acquisition, publishing, current awareness service and selective broadcastetc)

Unless a decision is issued demanding its completion, but this requires a set of decision support systems (DSS). The decision support systems are essential resource in achieving organizational performance especially in the information technology and enhancing the competitiveness capability.

The decision support systems are considered one of the most important of modern methods to store and to retrieve information and to evaluate alternatives and discovering solutions for corrective action while ensuring continuity of excellence and sustainability. And also it is considered as a decision support systems on the furthest and widest scope, especially in the field of libraries and information. (Mohamed Abdelhadi, 2008, p79). Highlighting on what it is presented, the problematization that treated this research, it can be formulated as follows:

“what is the role of the decision support systems in the in consolidating the competitive advantage’s features in main libraries of public reading?”

✓ **The goals of the research:**

This research seeks to achieve the following goals:

- ❖ The concepts about decision support systems in libraries and information centers.
- ❖ The concepts of competitive advantage in libraries and information centers.
- ❖ The relation between decision support systems and competitive advantage in libraries and information centers.

✓ **The study hypothesis in the following:**

- ❖ There is relation between decision support systems and competitive advantage.
- ❖ The decision support systems work to enhance the competitive advantage between libraries and information centers.

- ✓ **The study of this research:** the description use; to make the limited problematization in the decision support systems and the competitive advantage.

2- General conceptual framework about decision support systems:

1-2 Definition of decision support systems:

The expression of information systems can help the manger through required information the most administrative structures, support the manager in the difficult task of decision making. (B.Ravindranath, 2003, p10)

As it is defined based on computer is used to support taking a complex decision and problem solving. (Andrea Critto, Glenn, 2008,p6)

The decision support systems are defined as a computerized system that supervises various activities and processes; it improves the activity of decision makers and at the same time motivates them to make the right decision. (Ali Mugahed Al-Rahmi, 2019,p567)

-The decision support system (DSS) collects the databases and analyzes it to make general information about clients. (Olson, D.; Elbaum2002, p32)

-The decision support systems is software work collects information, analyzes it, and presents it to decision makers to support decision making within organizations(Maryse Salles, 2015, p56.)

-The decision support systems is a system adapts to decision makers in order to provide solutions for decision making.(Frederic Adam, 2008, p466)

2-2 The evolution of decision support systems:

With the beginning of seventies from Scott Morton under the Management Support System, and according to the decision support systems is considered free terminology, so it is not universally agreed upon On a unified definition for it, and for being a new science, and due to the large number of specialists who are currently dealing with it, it is a system that blends data and offers high-level models and analyses. This system works to presents the direct support for the upper and middle administration. It is considered a developed system category nowadays; the decision support systems help the decision makers to reach out the data and understand it better and understand the consequences of their decision concerning the institution management, therefore, these systems deal mainly with operational problems and

problems related to achieving administrative control. They are also used for strategic planning. They were developed specifically to assist management (top and middle).

3- The benefits of the decision support system in libraries and information centers:

The decision support systems contribute number of benefits including:

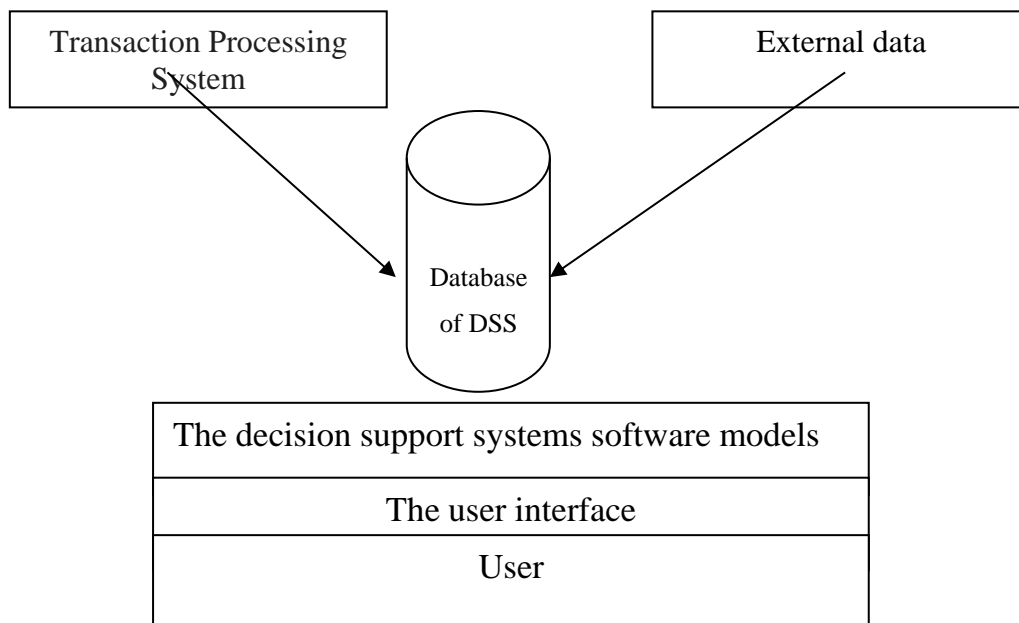
- ✓ The systems support contributes to improve the quality, efficiencies and effectiveness of non-structural strategic decisions and semi-structural tactical decisions in the library.
- ✓ The systems support use from the higher administration and the support and analysis group as it is used from the managers in the middle administration and in different function domains to support decisions in these levels.
- ✓ The decision support systems are characterized by the easy use and flexibility with a simple interface for the final beneficiary through direct dialogue in natural language.
- ✓ Providing facilities for choosing the required decision model, modifying assumptions, and achieving a better understanding of the problem and its causes.
- ✓ The decision support systems present the ultimate beneficiary of useful tools for data analysis using models and databases and providing possible solutions to the presented problems.

4- The characteristics of the decision support systems in libraries and information centers:

- ✓ The ability to test the largest number of alternatives.
- ✓ The quick response to unexpected situations
- ✓ Saving time and cost
- ✓ The ability to try more than one different solution policy. (Manal Ahmed, Al-Baroudi, 2015, pp. 89-90)
- ✓ The ability to reach objective decisions that take into account the point of view of the decision maker.
- ✓ The increasing the effectiveness of the decision-making process.
- ✓ Narrowing the gap between the level of performance of the decision maker

5- The components of the decision support systems in libraries and information system:

Model 01: It presents the components of the decision support systems



Source: Muhsine Ben Hafid Fadle Ben Armar

6- Types of decision support information systems in libraries and information centers:

The principles types of decision support information systems are divided under classification into:

- ✓ Transactions Processing System (TPS) support repetitive and these systems critical activities and office work.
- ✓ Office Automation System (OAS) supports the employers who work in the offices.
- ✓ Decision Support System (DSS) supports the decision-making process by managers and analysts.
- ✓ Executive Information System (EIS) supports Senior management in firm (Nabil Muhammad Morsi, 2005, p. 37)
- ✓ Expert systems and artificial intelligence (ES&AI) indicate the ability of computer or Computer-supported robot to manage the information, and reach out the results in a similar way to the thought process of humans. In making decisions and solving problems. So, the aim of the artificial intelligence systems is developing the systems that are able to manage the complex problem in intelligent and developed method. (Abdelkader Dandan, 2021, pp. 17-18).

7- Types of the decisions that support decisions information systems inside the libraries and information centers:

1-7 The semi-structured Decisions:

These are decisions in which part of the problem is clear and the procedures are semi-specific. The procedures are specific, but they are not sufficient to make decisions and need to collect some information about the problem.

2-7 The Non Programmed Decisions:

These are decisions deal with the situations that are not limited or uncommon as strategic decisions which are new type of commodity, entry into new markets, expansion decisions, and merger decisions, and most of these decisions are taken at the senior management level (Mohamed Serafi, 2014, p. 229).

8- The difficulties that are faced the decisions-making operation in libraries:

There are several of obstacles that are faced the libraries manager in the making in decision about an interesting issue related to library that obliged them to the necessity of effectiveness decision- making either it was long or short extent. To effect positively on the goals that aims to do, therefore, reaching out the best results require following practical steps in decision-making. Through decision-making in all stages, leaders may face one or more problems, which we all explain below:

- The non- daily following-up of library departments.
- Failure to approve different work policies for different services
- Centralization of decision-making from the university manager.
- The difficulties of getting the information in the written reports, and the difficulty to determine its credibility.
- Lack of a well-prepared work environment that motivates employees.
- The slowness in implementing decisions because they do not reach the workers directly, or because of the workers themselves.
- The weakness in financial capabilities of libraries, especially in the supply process.
- The lack of clear funding policies for libraries.
- The subordinate does not fear the consequences of not implementing the decision.
- The financial return is not rewarding for those working in the field of libraries
- The difficulty diagnosing the problems.
- The decision maker does not face difficulties in making the decision, but rather the difficulties facing library workers.

9- The concepts about the competitive advantage in libraries and information centers:

It is defined by Philip Kotler as the ability of institution in different practices distinctly from other in creative method that create additional value.

Tompson & Strickland defined it as something do it good by the institution comparing to its competitor and it is related to the company functions or another practice has an important form of creating, producing or marketing products and services. (Wael Ibrahim Abdel Rahim Hamimi, 2001, p. 97)

The competitive advantage was also known as a mean that enable the company in achieving the superiority in the field and competition with others (Saadoun Hamoud Jathir Al-Rubaawi, 2015, p. 560.)

As it is known as features of distinct chances in the domain which is recognized in the dualism of a product whose market is headed for growth, it aims to identify the special characteristics of the product that are marketable and that give the organization a strong competitive position. (Thomas Fritz, 2008, p10.)

Moreover, the competitive advantage is determined as the benefit achieved if the organization is able to offer a competitive advantage that allows it to maximize its profitability. (Charlene Rowena van Zyl, 2006, P19)

10- The importance of the competitive advantage in the following matters:

Firstly: the capacity of libraries in decision support systems to preserve the pioneers who benefit from one hand and provide them with services that distinguish them from competitors and achieve their aspirations.

Secondly: Achieving beneficiary satisfaction so that libraries and information centers can establish a clearly defined strategic footprint among the various libraries.

Thirdly: Ensuring continuity and sustainable development and thus ensuring its share among documentary institutions. (Badr Awad Lazam...et al., 2019. p. 391)

Throughout the support decisions information systems: acquiring the competitive advantage:

First of all: decision support systems create support the competitive advantage

Once a decision support system is implemented, it should become a power or significant possibility or capability.

Secondly: The decision support system must be unique and proprietary to the organization.

Thirdly: The advantage provided by the decision support system must be sustainable for at least 3 years. Until With rapid technological change, a 3-year of duty drawback is realistic. The Strategic investments in information technology must keep these three criteria in mind.

11- The features of the competitive advantage:

The characteristics of the competitive advantage embodies in the following:

- 1- It must be continuous and sustainable, which means the institution achieves honesty over the long term and not only in the short term.
- 2- The competitive advantage is characterized by relative comparison to competitor or comparing it in the different periods, this characteristic makes understanding the advantages in an absolute framework difficult to achieve.
- 3- It must be renewed according to the data of the external environment on the one hand and the capabilities and materials of the internal institution.
- 4- The Guidance and motivation for libraries and information centers.
- 5- Achieving superiority and advantage over competitors. (Taher Mohsen Mansour Al-Ghalibi, 2009, p. 309)
- 6- It reflects the efficiency of performance of those in charge of the institution. (Nadjm Abboud Negm, 2001, p. 27)

12- The most important basis to improve competitive advantage in libraries and information centers:

To make and enhance the competitive advantage depends on the factors including:

Firstly: Improve the quality of the user resources.

Secondly: Developing the activation of operations through modern administrative methods such as management and quality.

Thirdly: Drawing and adopting appropriate strategies to confront competitors.

Fourthly: The necessity of developing, activating and updating mechanisms for competitive advantage and employing them in a new way to confront competitors in the shortest possible time by employing qualified human resources with competence in development, creativity and innovation. (Ihsan, Sadiq Rashid, 2020, p. 98)

13- The support decisions information systems and the competitive advantage:

The competitive advantage is the use of information in acquiring influence in the field, the support decisions information systems work to achieve the confirmed competitive advantage. This is through the information it provides about the main competition in the external environment. (Jamal Muhammad Abdullah, 2014, pp. 137-139.)

In addition to solving the problem and finding alternatives for the decision maker in a suitable time and standard manner, treating critical situations and overcoming crises using information, knowledge and experiences, and using systems whose mission is to create knowledge based on new cognitive innovations of fast paths, and new creative reports and documents, the ability to distinguish between the types of knowledge and easy of accessing to it, as cognitive basic that contains knowledge about a specific topic, the ability to make a decision. The support decisions information systems plays an important role in achieving the competitive advantage of specific companies with what the world attests nowadays the transformation towards globalization and the increasing trend in the service economy, remote work and other phenomena, with which information becomes a strategic weapon that supports the organization's survival and continuity in the market, information systems achieve competitive advantage. (Fahmi Haider, Information Systems: An Introduction to Achieving Competitive Advantage, Al-Dar 2002, p. 31)

The support decisions information systems helps in building the competitive advantages and preserving it. It is developed under the effect of new techniques and styles and the working changes needs permanently. (Mitran Daniel, 2019, p79-81).

14- The supporting decision systems creating the competitive advantages:

Firstly: Once DSS is implemented, it should become a major force or capability in libraries.

Secondly: DSS must be unique and owned by libraries and information centers.

Thirdly: the advantage that is provided by the supporting decision system must be sustainable with fast changeable technology in the field of information technology, so, if the libraries and the information centers preserve these criteria in general, it will have the competitive advantage.

The supporting decision system can create differential advantage, providing decision support systems to customers can differentiate a product and perhaps provide a new service. Differentiation increases profitability when the specified price is greater than any additional costs.

Therefore, we can say to the companies that they can achieve that the competitive advantage through the strategic changes and managers must ask how the proposed system will affect the organization's costs, relationships with suppliers and customers, and administrative effectiveness. As the managers must also try to evaluate how the strategic system will affect the structure of the industry and the behavior of competitors, and finally, organizations must continue to improve and develop information technology and support decision-making to gain and maintain any competitive advantage.

15- Conclusion:

Competitive advantage has become necessary for the survival and stability of libraries and information centers, especially the successive changes that this sector is witnessing in the field of information, the development of service provision, and securing their presence over various times. It represents the real supplier and primary distributor. The decision support system is one of the styles in libraries. In all its forms, nowadays, using decision support information systems of all kinds and at the various levels of its interests so as not to lose its monopoly position and have to increasingly compete with the rest of the libraries and information centers.

The results of study:

- 1-The decision support systems works to create comprehensive knowledge among library individuals.
- 2- Decision support systems achieve quality in providing services, and thus the library and information centers gain through this competitive advantage.
- 3-Decision support systems ensure an advantage in the effectiveness of decision-making within libraries and information centers.
- 4- Decision support systems work to create institutional excellence through maintaining a standard by ensuring costs reduction.
- 5- Decision support systems encourage the creation of creativity and renewed innovation, making it an effective model to be benefited from.

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