



## **Chapter VI**

# **Using DSS for Global Competitiveness: An Effective Information-Based Decision Making Process in Public Administration**

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## **Abstract**

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*With a changing global environment driven by the innovative evolutions of information and communication technology, organizations are setting their priorities to cater to a global marketplace. In that respect, they are focusing on adding value propositions to different data and information elements gathered to help know more about customers and various environments where products and services are manufactured and traded. Therefore organizations continuously need to increase their business intelligence by monitoring systems that analyze information and develop indicators coupled with support mechanisms to decision makers to handle semi-structured and un-structured problems characterized by varying alternatives and parameters to understand the problem spectrum and help develop alternative solutions. This chapter discusses concepts and characteristics of decision*

*support methods and demonstrates the gap between the decision maker and the decision support systems techniques demonstrating the experience of the government of Egypt in building its information infrastructure to help develop the decision-making process both at the government level and the local public administration level.*

## **Background**

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Organizations continuously need to increase their business intelligence by monitoring systems that analyze information and developing indicators that are coupled with support mechanisms to decision makers to handle various types of decision problems characterized by varying alternatives and parameters to understand the problem spectrum and help develop alternative solutions. The objective is always to remain competitive and adapt to local and global organizational and market changes. Decision support systems (DSS), commercially called business intelligence (BI) solutions, represent powerful tools capable of enhancing the capabilities of managers in facing challenges, especially at times of continuous change. It helps improving decisions by providing accurate and relevant information and also supports in saving time. It also helps build a knowledge repository that can help understand the marketplace and compete more effectively. Business intelligence, which has a broader concept than data warehousing, is an essential component of the overall strategy of different organizations in a world much affected by globalization and where culture, change, competition, and technology represent influential forces in driving the decision-making process. It is important to note that data warehousing increases the decision-maker capabilities in a passive way due to its dependences on historical data; however, business intelligence helps in projecting the future to be able to set the appropriate tactical and strategic plans in a more active way and hence realize organizational objectives. Business intelligence definitely brings competitive advantages to the organization in the time of globalization. Its importance is in the forward and future projection of the needs of the organization. Strategies of the future nowadays represent the platform to decide the actions of today, and business intelligence helps to do that. Therefore the more it is used in strategy development, the more likely it can survive, grow, and compete.

Little (1970) defines decision support systems as a model-based set of procedures for processing data and judgments to assist a manager in his decision-making processes. He argues that to be successful, such a system must be simple, robust, easy to control, adaptive, complete on important issues, and easy to communicate with. Early definitions of DSS identified it as a system intended

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