JS PG COLLEGE , SIKANDRABAD , BBA 6th sem

DSS: Deterministic Systems

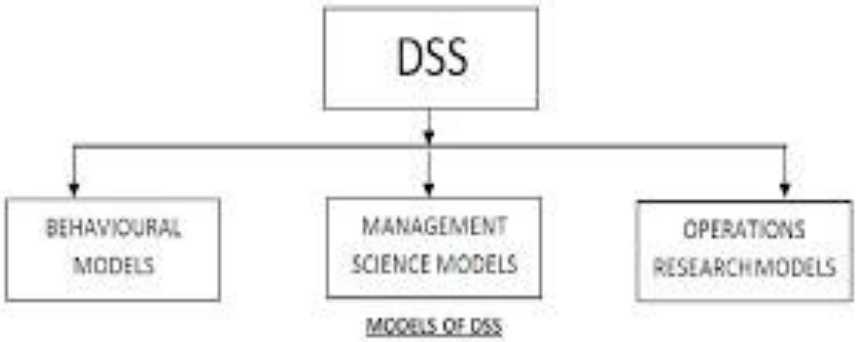
There are a number of situation, where the management has to make a decision based on the analysis of business statistics. Since the organization would have the database information; these decision situations draw data from the database(s). Most of these decision situations are fairly structured and, therefore, can be put in the form of the business models. A far assumption is made that the model has business and decision-making validity.

If the management can design such models duly tested, they can be used by the need arrives. All such tools and models act as the support system for decision-making. The tools and the models are generally standard but have to have a custom need in a specific situation. The DSS based on such tools or models have found extensive use, as a number of computer-based software tools and packages are hardware independent and have proven the application areas. The ranges of packages are available from PC to mainframe computer systems. The packages are also available for a popular network system as well.

The origin of these tools and models lie in business management, management science, and operations research. Some are universally known and proven tools and have application in business management. While designing the models, a flexible approach is taken to solve varied decision-making problems. They undergo a change over a period of time. The most significant advantage of the DSS is its implications on the result or business performance. The second advantage of DSS is that it provides higher management ability to delegate decision-making to the lower level once the tools and the models are tested.

DSS MODELS

The DSS can be based on three different approaches. They are shown in the figure below:



MODELS OF DSS

Behavioral model: these models are useful in understanding the behavior amongst the business variables. The decision maker can then make decisions giving due regard to such behavioral relationships.

Management science models: these models are developed on the principles of business management, accounting, and economies. In many areas of management, the proven methods of management control are available which can be used for the management decisions. There are also several management systems, which can be converted into DSS models.

Operation research models: the operation research models are mathematical models. These models represent a real-life problem situation in terms of the variables, constants, and parameters expressed in algorithm equation. Since the models are mathematical; there are solutions to these problems. In arriving the solution methodology calculus, matrix algebra, probability, and set theory are used. These models have the clarity to the extent that each of them has a set of assumptions which must be true in real life. Further, if the assumptions are valid, the solutions offered are realistic and practical. The model represents the real-life problem solutions