# Decision Support System (DSS)

## **Decision Support System (DSS):**

## A decision support system (DSS) is a computerized program used to support determinations, judgments, and courses of action in an organization or a business. A DSS sifts through and analyzes massive amounts of data, compiling comprehensive information that can be used to solve problems and in.

## The DSS can either be completely computerized or powered by humans. In some cases, it may combine both. The ideal systems analyze information and actually make decisions for the user. At the very least, they allow human users to make more informed decisions at a quicker pace.

**Decision support system components:**

* knowledge database
* software
* user interface.

**Knowledge base:**

A knowledge base is an integral part of a decision support system database, containing information from both internal and external sources. It is a library of information related to particular subjects and is the part of a DSS that stores information used by the system's reasoning engine to determine a course of action.

**Software system:**

The software system is composed of model management systems. A model is a simulation of a real-world system with the goal of understanding how the system works and how it can be improved. Organizations use models to predict how outcomes will change with different adjustments to the system.

For example, models can be helpful for understanding systems that are too complicated, too expensive or too dangerous to fully explore in real life. That's the idea behind computer simulations used for scientific research, engineering tests, weather forecasting and many other applications.

Models can also be used to represent and explore systems that don't yet exist, like a proposed new technology, a planned factory or a business's supply chain. Businesses also use models to predict the outcomes of different changes to a system -- such as policies, risks and regulations -- to help make business decisions.

**User interface:**

The user interface enables easy system navigation. The primary goal of the decision support system's user interface is to make it easy for the user to manipulate the data that is stored on it. Businesses can use the interface to evaluate the effectiveness of DSS transactions for the end users. DSS interfaces include simple windows, complex menu-driven interfaces and command-line interfaces.

**the Benefits of a Decision Support System:**

Broadly speaking, decision support systems help in making more informed decisions. Often used by upper and mid-level management, decision support systems are used to make actionable decisions, or produce multiple possible outcomes based on current and historical company data. At the same time, decision support systems can be used to produce reports for customers that are easily digestible and can be adjusted based on user specifications.

**Reference:**

<https://www.investopedia.com/terms/d/decision-support-system.asp>

https://www.techtarget.com/searchcio/definition/decision-support-system