

Decision Support Top Software Products: A Review

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Abstract: The paper is originally dedicated to review and evaluate top software products for Decision Support. The aim of the paper is to choose one software product to be presented at the lab at King Abdulaziz University, College of Computing and Information Technology; Department of Information Systems. The Software would be used as a lab material for the Decision Support Systems Course. The Software products will be compared and evaluated to different academic and nonacademic criterias.
General Terms Decision Support Systems, Software Products.

Key words: Decision Support, Top Software Products, Software selection tools.

1. INTRODUCTION

A technology continuously develops, so do the applications in all aspects of life. In the business and management field, one of those applications is and interactive; analytical software known as a decision support system, or DSS. A DSS is often used in abnormal decisions, where the environment is fast-paced and decisions are needed that combine both internal and external information (Career Education Corporation (C.E.C.), 2013). Managers that deal in commodities can choose to have their internal sales figures combined with real-time commodity trading information from the market in order to make a better business decision. DSS is used when the answer to a question; problem, or opportunity may not be defined in the beginning (Laudon & Laudon, 2012). System architects at IBM in the late 1960's first began looking at a method to use computers to assist us in making decisions systematically and efficiently (Power, 2007). This has developed into the DSS that we know today. As one of a variety of new tools coming out of modern computing and data modeling, DSS is getting a lot of attention from many.

As one of a variety of new tools coming out of modern computing and data modeling, DSS is getting a lot of attention from many businesses as a way to promote better projections, management and analysis within a company or business. DSS comes in many forms, and the term basically refers to a computer-aided system that helps managers and planners make decisions. DSS combines the power of human thought with the power of modeling systems to get optimal, informed decision making.

That said, there are a lot of different ways managers can use decision support software to their advantage if they are open to exploring decision support systems (DSS) applications and uses Fig1. Typically, business planners will build a DSS system according to their needs and use it to evaluate specific operations, including:

1. A large stock of inventory, where decision support system applications can provide guidance on establishing supply chain movement that works for a business.
2. A sales process, where decision support systems software is a "crystal ball" that helps managers theorize how changes will affect results.
3. Other specialized processes related to a field or industry. (Stoltzfus, 2017)

2. SOFTWARE REVIEW

2.1 SAP Business Objects

Application to help you optimize business performance by connecting people, information, and businesses across business networks
(<http://www.capterra.com/decisionsupport-software/>).

2.2 Qlik View

QlikView enables analysis capabilities along with unparalleled flexibility, performance, and simplicity. Qlik View lets you consolidate, search, visualize, and analyze all your data sources for unprecedented business insight.

2.3 EIDOS

Visual reasoning and knowledge representation to support scenario based strategizing, problem solving and better decision making.

2.4 Web FOCUS

Reporting, analysis, distribution, personalization, development, management and administration. Web FOCUS is an information retrieval tool created by Information Builders and used in business intelligence. The foundation of this tool is the Web Focus query and reporting engine, which enables users to gain access to numerous databases and file systems through a Web browser. Web FOCUS is considered to be a business intelligence platform, which provides information to employees, managers, partners, analysts and consumers

(<https://www.techopedia.com/definition/25980/webfocus>, n.d.)

2.5 TIBCO Spotfire

TIBCO Spotfire® data visualization and analytics software helps you quickly uncover insights for better decision-making.

Spotfire's origins trace back to the [University of Maryland Human-Computer Interaction Lab](#) at the [University of Maryland, College Park](#) where, a visiting student from Sweden in the early 1990s, [Christopher Ahlberg](#), worked with [Ben Shneiderman](#) to develop applications of dynamic queries. Ahlberg returned to Sweden and developed an enhanced [UNIX](#) implementation of his visual data analysis tool, the Information Visualization and Exploration Environment (IVEE). Spotfire was launched in mid-1996 by IVEE Development, which was renamed Spotfire Inc.^[1]

On May 2, 2007 it was announced that [TIBCO](#) would buy the company (<https://en.wikipedia.org/wiki/Spotfire>, n.d.).

2.6 Power noodle | Better Decisions

Powernoodle is cloud software that helps organizations make better decisions by leveraging Stakeholder Intelligence .

2.7 Riskturn

Solution for risk-based cash flow forecasting. Using Monte Carlo simulation, make decisions with greater confidence and visibility.

2.8 Paramount Decisions

Software to help organizations make better group decisions.

2.9 Analytica

A powerful, stand-alone application for visual quantitative modeling, leading to greater insight for analysts and decisionmakers.

2.10 opTEAMize

Automates the selection and quoting for IT projects by aggregating information about the cost, capacity and capability of your company.

2.11 GoldSim

Supports decision and risk analysis by simulating future performance.

2.12 1000Minds Decision Making

Decision-making software for prioritization, group decisionmaking, conjoint analysis, MCDM and maximizing value for money. Free trial.

2.13 Tribium DECISIONS

Decision Support System that evaluates multiple alternatives in order to evaluate and publish the crucial details of a decision.

2.14 Decision Explorer

Helps you make a comprehensive qualitative model which can be analyzed to help develop strategy, decision making and business problems.

2.15 Assisstum

Empowers staff to make decisions on the spot, within a framework of policy and principles.

2.16 AVDecision

A decision support solution that learns from real time activities & interactions then makes actions & decisions, and more.

2.17 Best Offer Advisor

Our Best Offer Advisor updates you each time you receive an offer with all the necessary data needed to make a smart decision.

2.18 CART

Easy-to-use decision tree that automatically sifts large, complex databases for significant patterns and relationships.

2.19 CoBRA

Decision support software for large-scale and all hazard incidents; critical tools, guides, forms, checklists and incident reporting.

2.20 Decision Lens

Cloud-based software solutions for portfolio prioritization and selection, focused on modelling, scenario comparison, and analytics.

2.21 Decision Oven

#1 Enter criteria, importance and needs. #2 Enter alternatives that you are thinking about. #3 See rankings and choose a best option

2.22 Decision Builder

Rules based, decision system for extending enterprise application functionality without burden to resources, budgets, project time. Decision Builder ERP Software is an enterprise resource planning (ERP) system that serves companies in the manufacturing, distribution, and service fields. Throughout the North American continent, Decision Builder has been installed in over 60 different industries[1].

2.23 Decision Tools Suite

Integrated set of programs for risk analysis and decision making under uncertainty.

2.24 DPL 9 Professional

DPL Professional is the Comprehensive, Scalable Decision Tree Tool for Robust Decision and Risk Analytics

2.25 Evaluator

Evaluator helps organisations make structured selection decisions by scoring options based on a common set of weighted criteria.

2.26 Expert Choice

Collaboration software that helps organizations make better decisions that achieve alignment and buy-in with speed and transparency.

2.27 Financial analysis suite

Analyze investment returns and what could go wrong. Identify risk in your cash flows and model them with Monte Carlo simulation.

2.28 Ganacos

A single platform for all data-driven decisions Inspired by spreadsheets simplicity. Built with the power of BI tools.

2.29 Hexigo

Collaborative decision management tool with outcome resolution and decision repository features.

2.30 IDP::Decision Support

For the insurance industry; transform detailed policy, billing, claims, and agency data into valuable analyses of your business.

2.31 INSIGHTS

INSIGHTS is a financial and operational decision-support service suite for hospital and healthcare institutions.

2.32 LogicNets

Deliver the right knowledge to the right person at the right time!

2.33 MakeItRational

Collaborative decision-making software based on analytic hierarchy process for suppliers evaluation, project prioritization, budgeting.

2.34 NTP Software File Reporter

NTP Software File Reporter delivers powerful and flexible unstructured file data analysis software

2.35 Perdeca

Decision support system used to help businesses automate the recording, management, and functions involved in decision making.

2.36 POPin

Top to bottom decision support system

2.37 Riva TCA

Integrated enterprise solution used by medium to large municipal governments to manage tangible capital assets.

2.38 Seerene

Actively drive IT change, balance productivity and innovation while massively reducing risk and increasing transparency.

2.39 Simulation Modeling

Simulation/predictive modeling tool for developing experimental computer models that are exact copies of an existing system.

2.40 Smart Decisions

A full end-to-end innovative decision support tool combining problem definition and ideas generation with MCDA

2.41 SnapStrat

Analytics, workflow, scenario modelling, tracking and more for recurring strategic decisions.

2.42 Synergy Indicata

Industry-leading M&E solution that streamlines results-based management and help organizations accomplish their performance objectives.

2.43 TeleCare Record Manager Plus

Enhances telephone triage decision-making by helping nurses accurately assess

2.44 Transparent Choice

Transparent Choice will help you collect, document, prioritize and schedule project requests!

2.45 URSA info Suite

Allows non-IT people in small to mid-sized companies to turn their data into actionable information.

2.46 Visi Rule

Visi Rule is a graphical tool for helping business users build rule-based systems to model and automate their decision making processes.

Table 1. shows a comparison between five of the above DSS Softwares.

Software	Free or Not	Deployment	Features
SAP Business Objects		Cloud, SaaS, Web Mobile - Android Native Mobile - iOS Native	First
QlikView	Free Edition is available	Similar	Very easy to use
EIDOS	Free Demo is available. Only enterprise packages available	Installed - Mac Installed - Windows Mobile - Android Native Mobile - iOS Native	

WebFOCUS	Extension product	Cloud, SaaS, Web, Installed - Windows	monitor and track company performance Access to analytics and analytical tools Data integrity solutions and consistent throughput Unifying integration infrastructure that accesses, cleanses, reconciles and prepares data for business intelligence use
TIBCO Spotfire	Priced	Cloud, SaaS, Web, Installed - Windows, iOS	Visual
opTEAMize		Cloud, SaaS, Web, Installed - Windows	
1000Minds		Cloud, SaaS, Web	

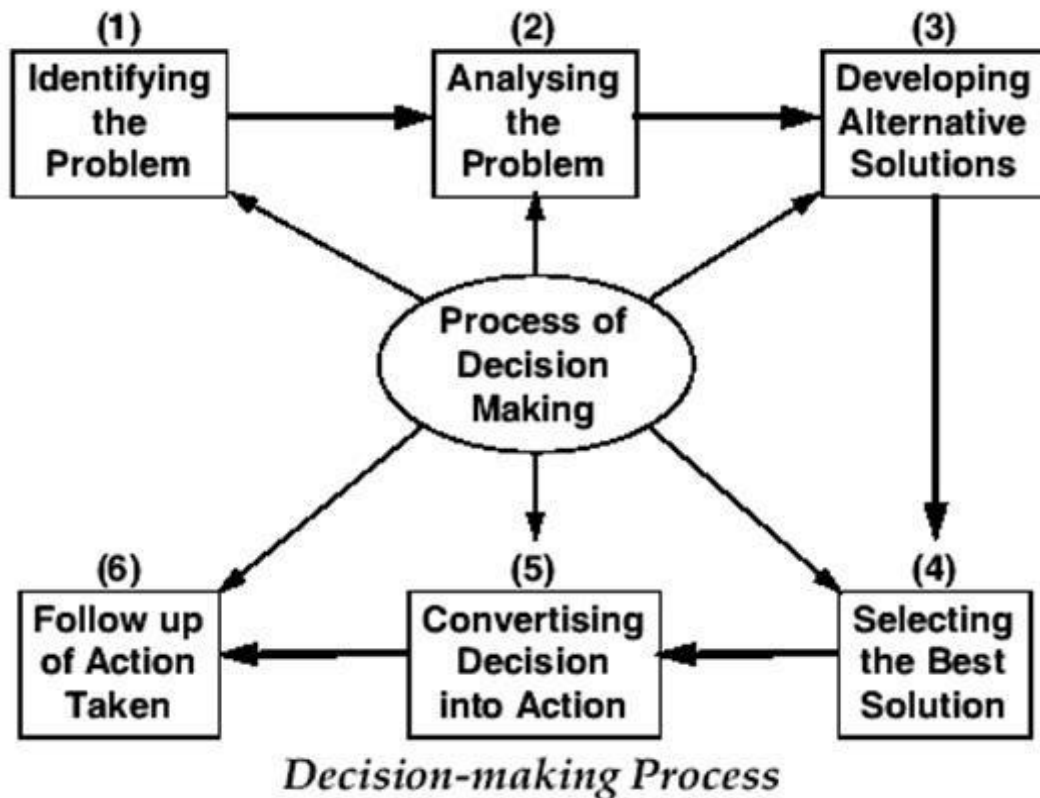


Fig 1: Decision Making Process

3. CONCLUSION FUTURE WORK

Our next step after reviewing software is to split students into groups. Each group is to test the softwares and provide and present a presentation to the rest of the students.

During the presentation each group should compare and provide a review on the rest of the softwares. After that a final recommendation will be provided as lab software for the next semester.

4. ACKNOWLEDGMENTS

Our thanks to the DEPARTMENT OF INFORMATION SYSTEMS AT FACULTY OF INFORMATION AND TECHNOLOGY AT KING ABDULAZIZ UNIVERSITY FOR THE HELP AND SUPPORT.

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