

# PRAKTIKUM 05: PENERAPAN BPMN DALAM DECISION SUPPORT SYSTEM (DSS)

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## TUJUAN PEMBELAJARAN

Mahasiswa dapat menggunakan dan mengaplikasikan BPMN 2.0.2 dalam pemodelan proses bisnis sistem, informasi

Mahasiswa dapat menerapkan notasi dan elemen BPMN 2.0.2

Mahasiswa dapat menerapkan notasi dan elemen BPMN dalam *Decision Support System (DSS)* atau Sistem Pendukung Keputusan

## REFERENSI

<https://www.omg.org/bpmn/index.htm> (khusus BPMN)

<https://www.omg.org/spec/BPMN> (spesifikasi BPMN)

Derek Miers, Stephen A. White Ph.D - BPMN Modeling and Reference Guide (2008, Future Strategies Inc., Lighthouse Pt, FL) - libgen.lc

James O'Brien, George Marakas - Management Information Systems, 10th Edition - McGraw-Hill\_Irwin (2010)

David Bourgeois - Information Systems for Business and Beyond-2019

## MATERI

**Pengertian, Contoh dan Fungsi *Decision Support System (DSS)* atau**

**Sistem Pendukung Keputusan dalam bisnis**

Decision  
Support  
Systems

**Decision support systems** are computer-based information systems that provide interactive information support to managers and business professionals during the decision-making process. Decision support systems use (1) analytical models, (2) specialized databases, (3) a decision maker's own insights and judgments, and (4) an interactive, computer-based modeling process to support semistructured business decisions.

### Example

An example might help at this point. Sales managers typically rely on management information systems to produce sales analysis reports. These reports contain sales performance figures by product line, salesperson, sales region, and so on. A decision support system (DSS), however, would also interactively show a sales manager the effects on sales performance of changes in a variety of factors (e.g., promotion expense and salesperson compensation). The DSS could then use several criteria (e.g., expected gross margin and market share) to evaluate and rank alternative combinations of sales performance factors.

Therefore, DSS are designed to be ad hoc, quick-response systems that are initiated and controlled by business decision makers. Decision support systems are thus able to support directly the specific types of decisions and the personal decision-making styles and needs of individual executives, managers, and business professionals.

**FIGURE 10.9** Many businesses are turning to decision support systems and their underlying models to improve a wide variety of business functions.

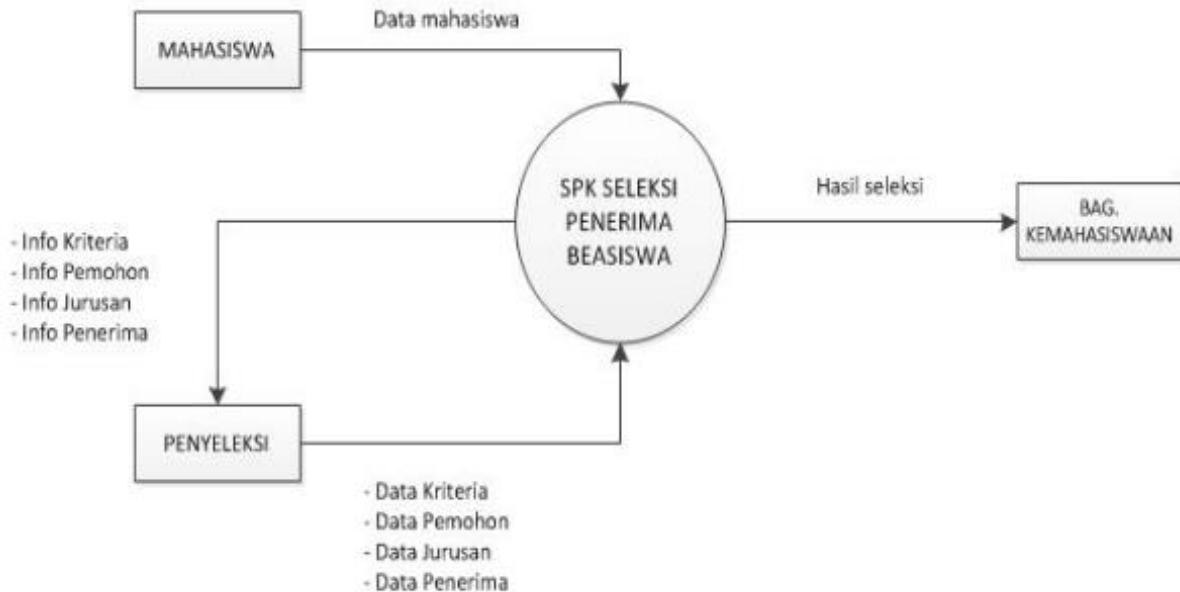
Analytics competitors make expert use of statistics and modeling to improve a wide variety of functions. Here are some common applications:		
Function	Description	Exemplars
Supply chain	Simulate and optimize supply chain flows; reduce inventory and stockouts.	Dell, Walmart, Amazon
Customer selection, loyalty, and service	Identify customers with the greatest profit potential; increase likelihood that they will want the product or service offering; retain their loyalty.	Harrah's, Capital One, Barclays
Pricing	Identify the price that will maximize yield or profit.	Progressive, Marriott
Human capital	Select the best employees for particular tasks or jobs at particular compensation levels.	New England Patriots, Oakland A's, Boston Red Sox
Product and service quality	Detect quality problems early and minimize them.	Honda, Intel
Financial performance	Better understand the drivers of financial performance and the effects of nonfinancial factors.	MCI, Verizon
Research and development	Improve quality, efficacy, and, where applicable, safety of products and services.	Novartis, Amazon, Yahoo

Source: Adapted from Thomas H. Davenport, "Competing on Analytics," *Harvard Business Review*, January 2006.

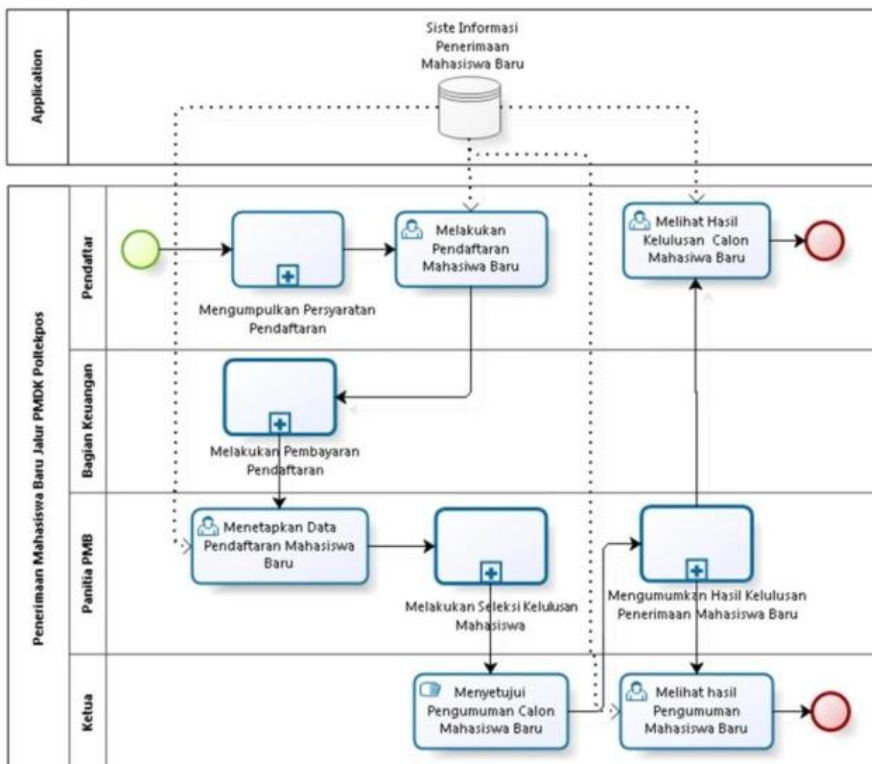
A decision support system (DSS) helps an organization make a specific decision or set of decisions. DSSs can exist at different levels of decision-making within the organization, from the CEO to first level managers. These systems are designed to take inputs regarding a known (or partially-known) decision making process and provide the information necessary to make a decision. DSSs generally assist a management level person in the decision-making process, though some can be designed to automate decision-making.

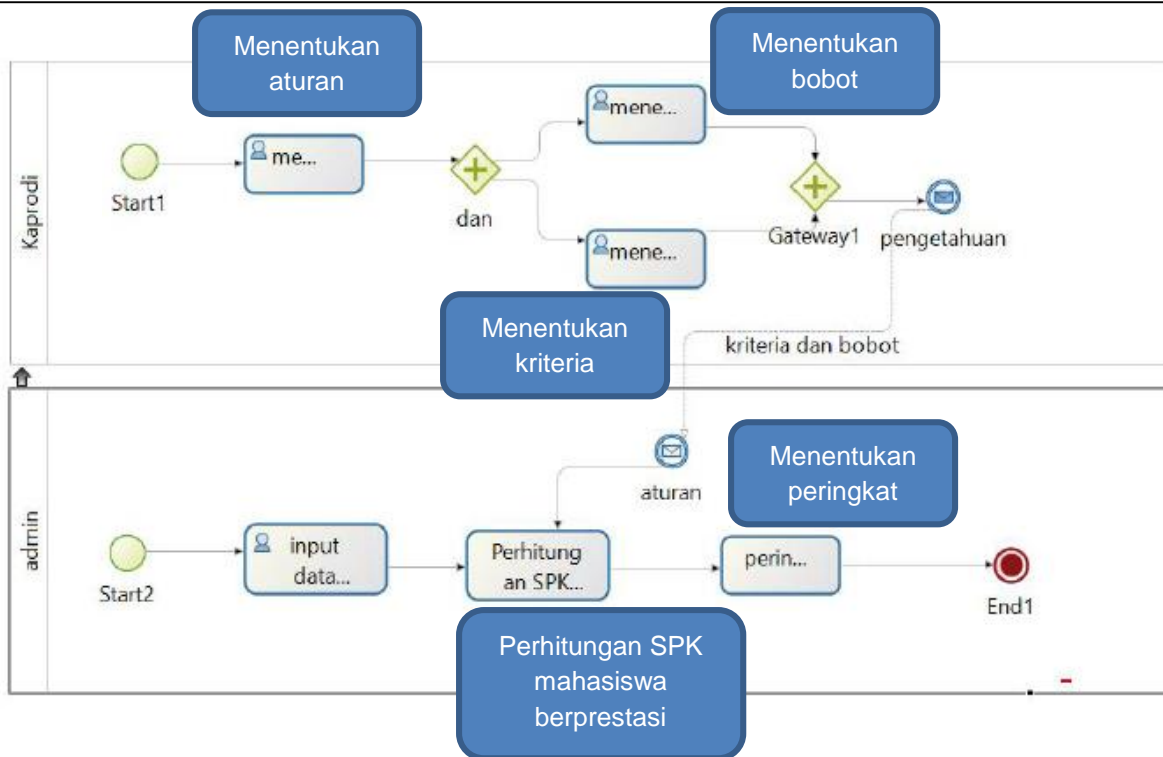
## PRAKTIKUM

Buatlah narasi proses bisnis Sistem Pendukung keputusan (SPK) untuk menentukan mahasiswa yang menerima beasiswa sesuai dengan diagram konteks berikut ini, kemudian buatlah BPMN dari narasi proses bisnis yang telah dibuat.



SPK Penerima Beasiswa boleh dinarasikan sebagai “aplikasi/software” seperti diagram BPMN penerimaan mahasiswa baru atau dinarasikan sebagai sebuah “alur/proses/algoritma” seperti penentuan mahasiswa berprestasi.





## DRAWING TOOL

Bonitasoft <https://www.bonitasoft.com/downloads>

Bizagi Modeler <https://www.bizagi.com/en/platform/modeler>

atau menggunakan drawing tool yang sudah terinstall dilaptop masing-masing.

## TUGAS

Buatlah laporan praktikum yang berisi:

1. Proses dokumentasi praktikum diatas
2. Jelaskan notasi dan elemen BPMN yang digunakan (*flow objects, data, connection objects, swimlanes, artifacts*)

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