

Lecture-2

Decision-Making Models (DMM)

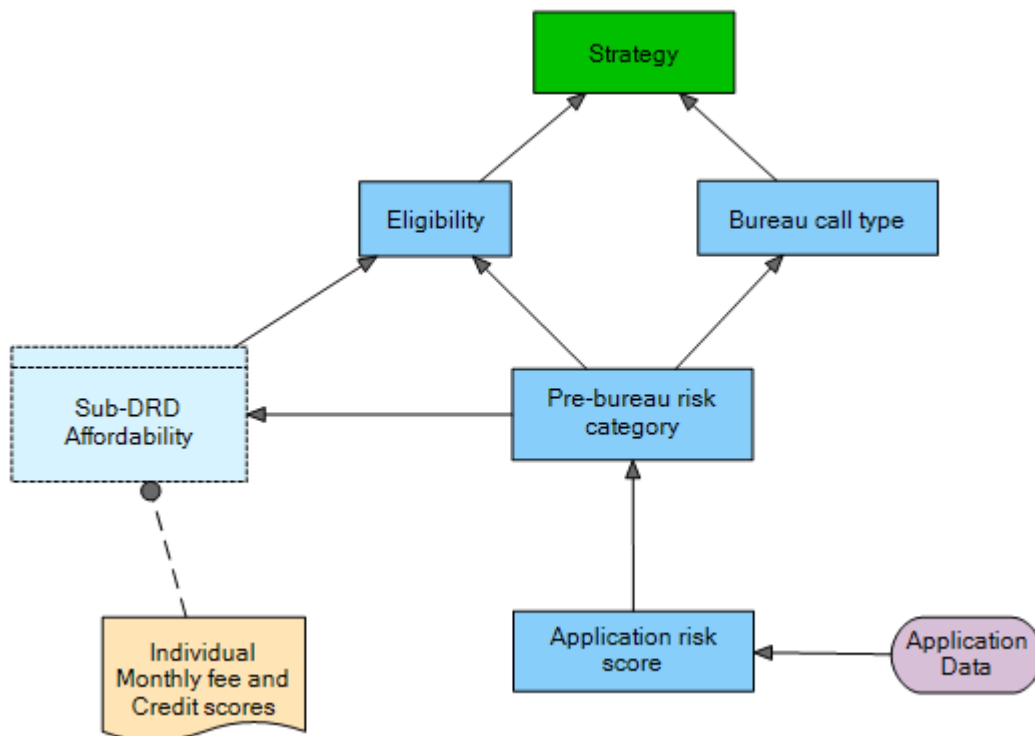
There are five decision-making models which have served countless businesses over the years.

1. The Vroom-Yetton-Jago Decision Model
2. The OODA Loop
3. The Recognition-Primed Decision Model
4. Paired Comparison Analysis
5. The Ladder of Inference

Why Modeling Business Decision is Important?

Business decisions capture the essence of the business operation. day in, day out, business decisions are made on a large scale, like changing price points, to hundreds or even thousands of operational decisions made on a daily basis, like pre-qualifying a new customer. These are repetitive, operational business decisions.

When it comes to making operational decisions, it is critical that a company has what we refer to as a Decision Modeling environment. In other words, a way of categorising and standardising every decision that needs to be made so that there is a consistent and transparent way of measuring and monitoring performance against specific business goals.



With modeling business decision, a business can determine both the business knowledge and related data that are needed in order to reach a particular decision. This includes gaining a thorough understanding of the dependencies for each and every operational decision that needs to be made. As we will demonstrate, this type of understanding cannot be achieved by using business rules alone.

Modeling business decision will enable a company to:

- Analyse and understand the requirements that lead to a particular business decision
- Provide an easy-to-understand picture of each decision in business terms
- Define the logic of that decision and a means to trace it back to a logical source

Advantages of Modeling Business Decisions

There are several key advantages to modeling business decisions. For example, whether your company uses decision table (spreadsheet) or natural language business rules, decision models are designed to scale easily while at the same time remaining easy to understand. Because a decision model is very precise when it comes to decision requirements, it facilitates understanding exactly what the impact is when you change any part of the model. This is where decision modeling has a distinct advantage over business rules.

	A	B	C
SingleHit	Existing Customer	Application Risk Score	Pre-Bureau Risk Category
	Condition	Condition	Action
	Boolean	result	{LOW, VERY LOW, DECLINE, HIGH, MEDIUM}
1	false	<100	HIGH
2	false	[100,120)	MEDIUM
3	false	[120,130]	LOW
4	false	>130	VERY LOW
5	true	<80	DECLINE
6	true	[80,90)	HIGH
7	true	[90,110]	MEDIUM
8	true	>110	LOW

Sample decision table for pre-bureau risk category

Subject Matter Experts Focus

FlexRule's Decision Modeling environment is designed to ensure that your subject matter experts are easily able to see exactly where the decision points are that result in a particular action being taken. So while Decision Modeling can inform developers of what to do, it is also transparent enough to enable the business to understand and verify the end business decision. In other words, Decision Models facilitate communications between business analysts and developers, thereby minimizing developmental misunderstandings.

Ownership and Control

The definition and simulation of business decisions allows business analysts to effectively control the implementation of business policy without having to rely entirely on IT to clear a backlog of change requests. This way, analysts can alter and correct the automated process to reach a particular decision 'on-the-fly', which greatly improves operational efficiency.

Traceability

Traceability is another key advantage of Decision Modeling. Every decision is accompanied by a justification that facilitates regulatory requirements and compliance, as well as helping to rapidly diagnose faults.

Separation of Concerns

Modeling business decision also manages to separate business processes from data, and business decisions from implementation. In other words, each of these four critical aspects of a successful operational decision-making environment can be examined and implemented separately.

Ease of Business Reviews

It is also important to note that modeling business decision enforces the use of standards that ensure all business analysts are 'working off the same page', so to speak. This facilitates more effective business reviews and avoids the pitfalls that are so often associated with pure business rule environments.

Scalability

Decision Modeling enables a company to model even the most complex operational decisions into more manageable subsets, which in turn facilitates scalability. Most importantly, the company can document exactly how its business are made, thereby enabling operations to quickly identify any flaws in the process.

Increasing Agility

This comprehensive approach to understanding business dependencies facilitates an agile approach to change management. Another advantage of this method is that it ensures rigorous compliance in the event of an external audit by enabling the company to explain particular decision-making based on easier-to-understand specifications.