



Analytical Hierarchy Process

How to make complex decisions with more confidence and buy-in

07.07.22

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What is AHP?

01

AHP is a multi-criteria decision-making framework

Originally developed in the 1970s by American mathematician Thomas L. Saaty.

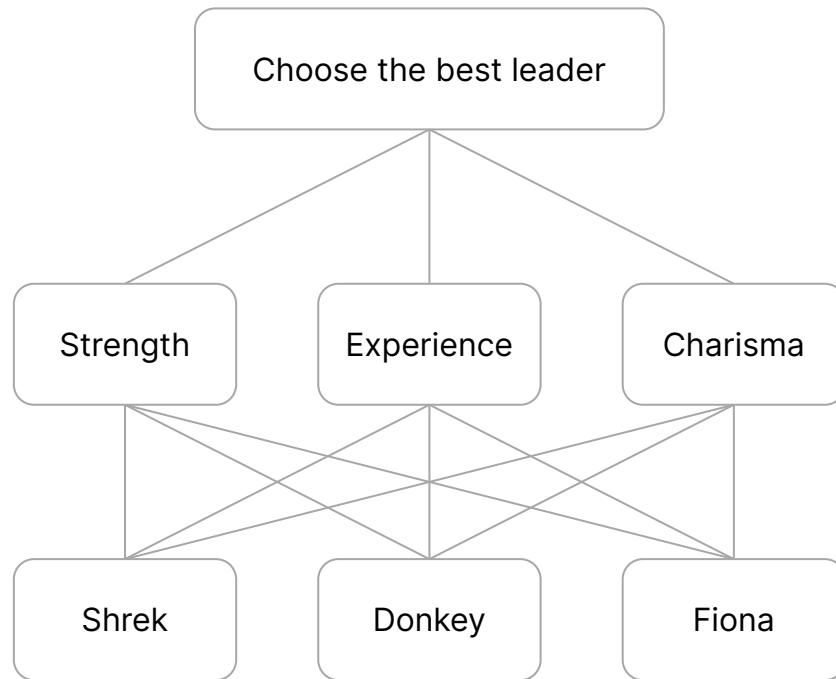
Used in various fields including energy infrastructure, academia and manufacturing.



A simple example

02

Goal: Choose the best leader



Criteria comparison table

Score each criterion relative to the other with respect to the goal using positive whole numbers for the more important one and the reciprocal for the other one.

	Strength	Experience	Charisma
Strength	1	1/2	3
Experience	2	1	6
Charisma	1/3	1/6	1



Alternatives comparison table

Similarly, score each alternative relative to the other with respect to each criterion using positive whole numbers for the more important one and the reciprocal for the other one.

STRENGTH		Shrek	Donkey	Fiona
	EXPERIENCE	Shrek	Donkey	Fiona
	CHARISMA	Shrek	Donkey	Fiona
	Shrek	1	1/2	3
	Donkey	2	1	6
	Fiona	1/3	1/6	1



$\$ \{ \text{math} \}$

We use linear algebra to normalize and compute score vectors for each comparison matrix. This gives us the weights for each criteria and the final weighted score for each alternative.



Who is the best leader?

0.3

Shrek



0.1

Donkey



0.6

Fiona



Tips for using AHP with your team

<https://mzl.la/ahp>

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03

Thank you

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