

April 17, 2024

Decision-Maker Centered Decisions

Meeting the leader on their ground

Alison B. Zabik, PE
Planning & Decision Technology Manager
ExxonMobil Global Projects Company

Society of Decision Professionals Annual Meeting
Arlington, Virginia

Decision Maker Realities

— Two Perspectives

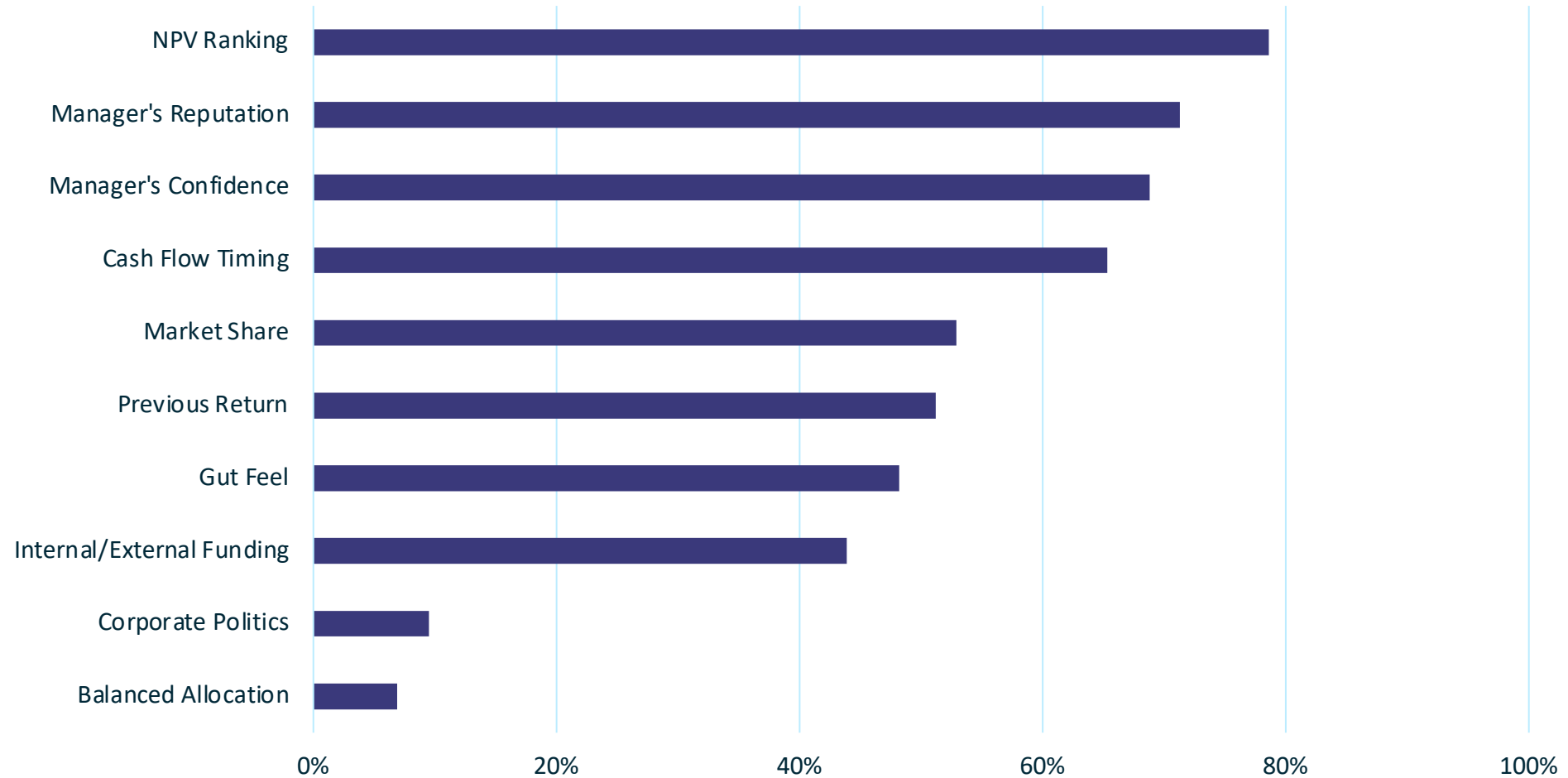
Corporate Leadership – US CEOs

Project Leadership – Upstream Project Leaders

US CEO Perspectives

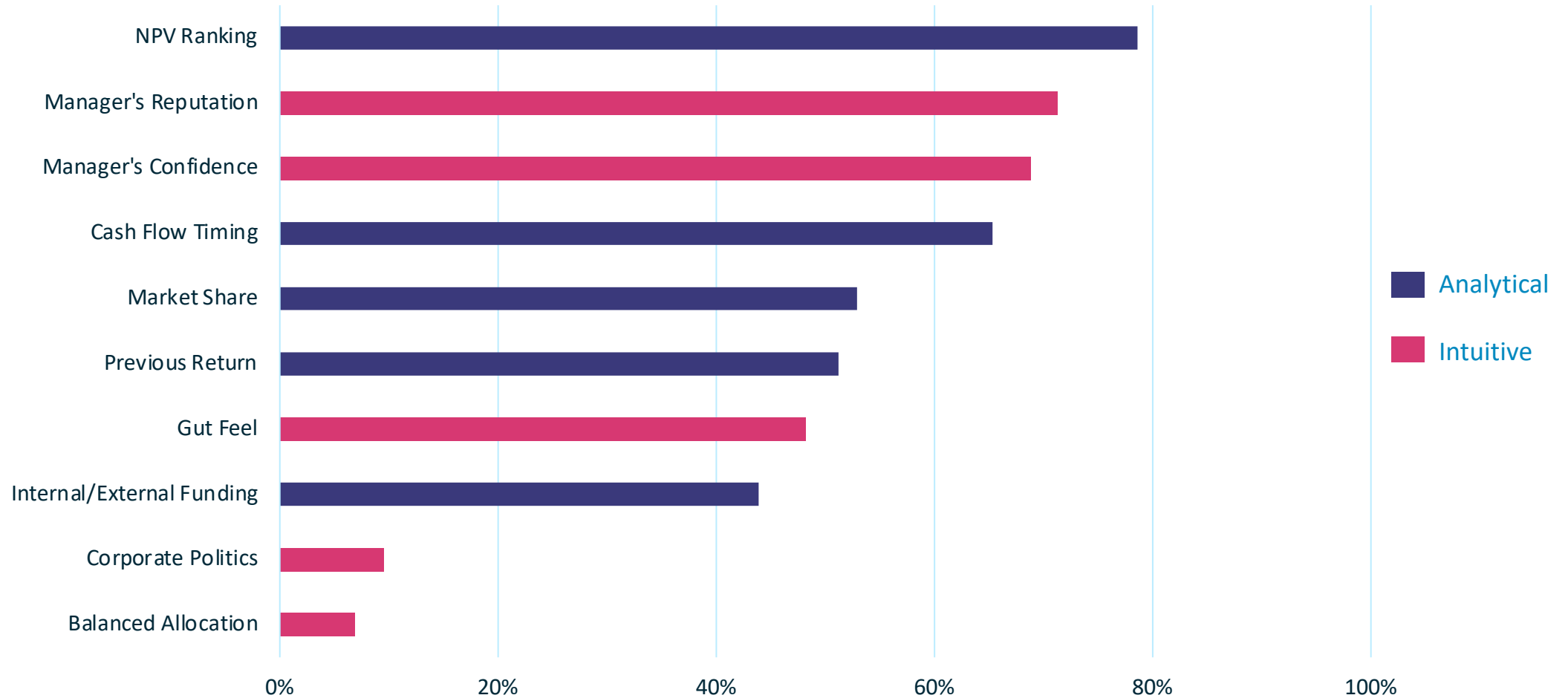
US CEO Capital Allocation Decision Criteria

Percent of US CEOs Identifying criteria as important or very important



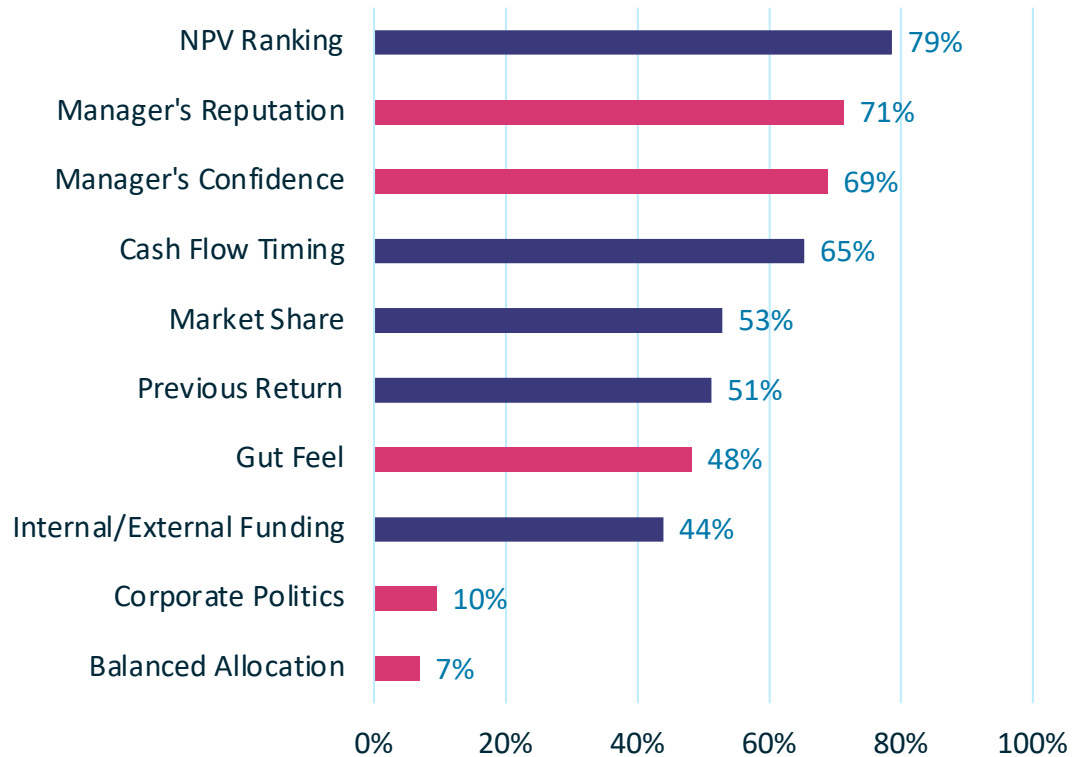
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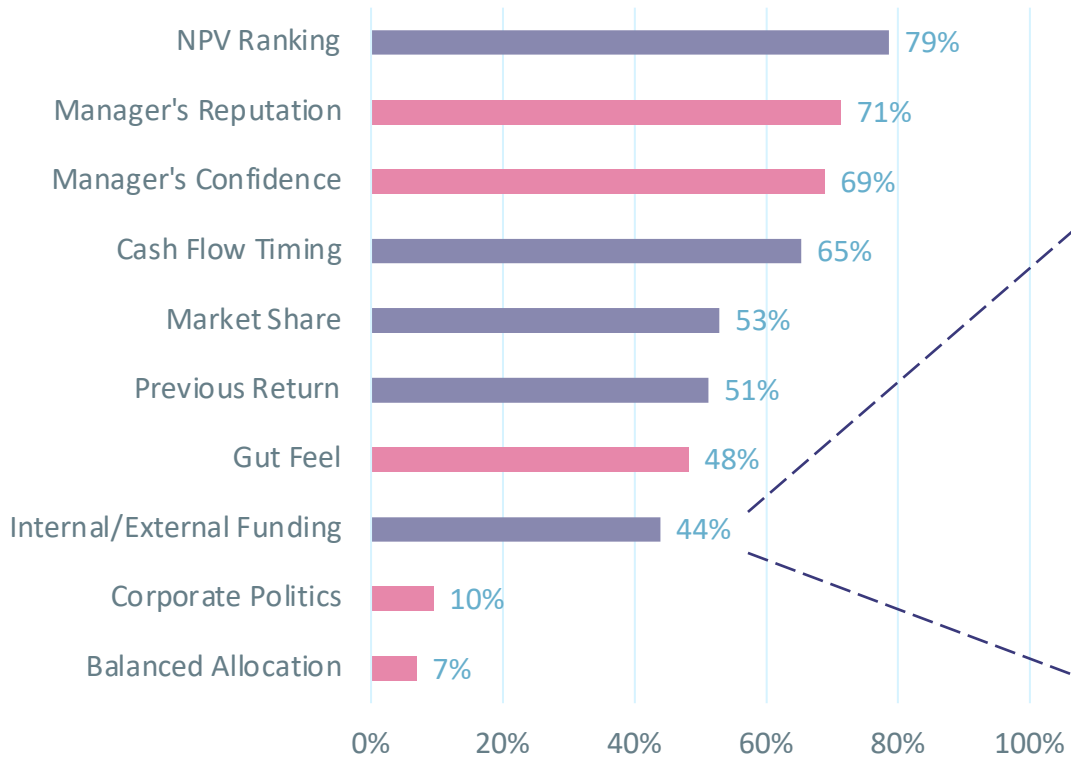
Insight: Funding Source Importance Shifts Seriatim

Percent of US CEOs identifying criteria as important or very important.....

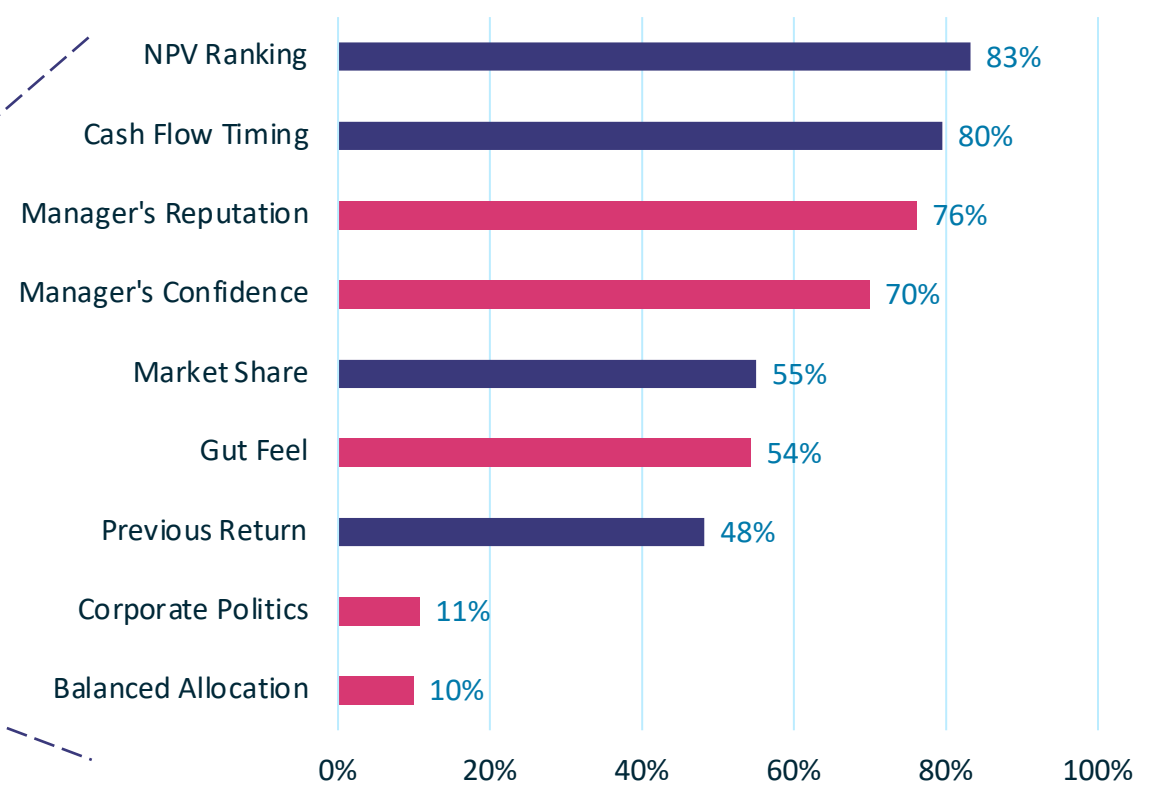


Insight: Funding Source Importance Shifts Seriatim

Percent of US CEOs identifying criteria as important or very important.....

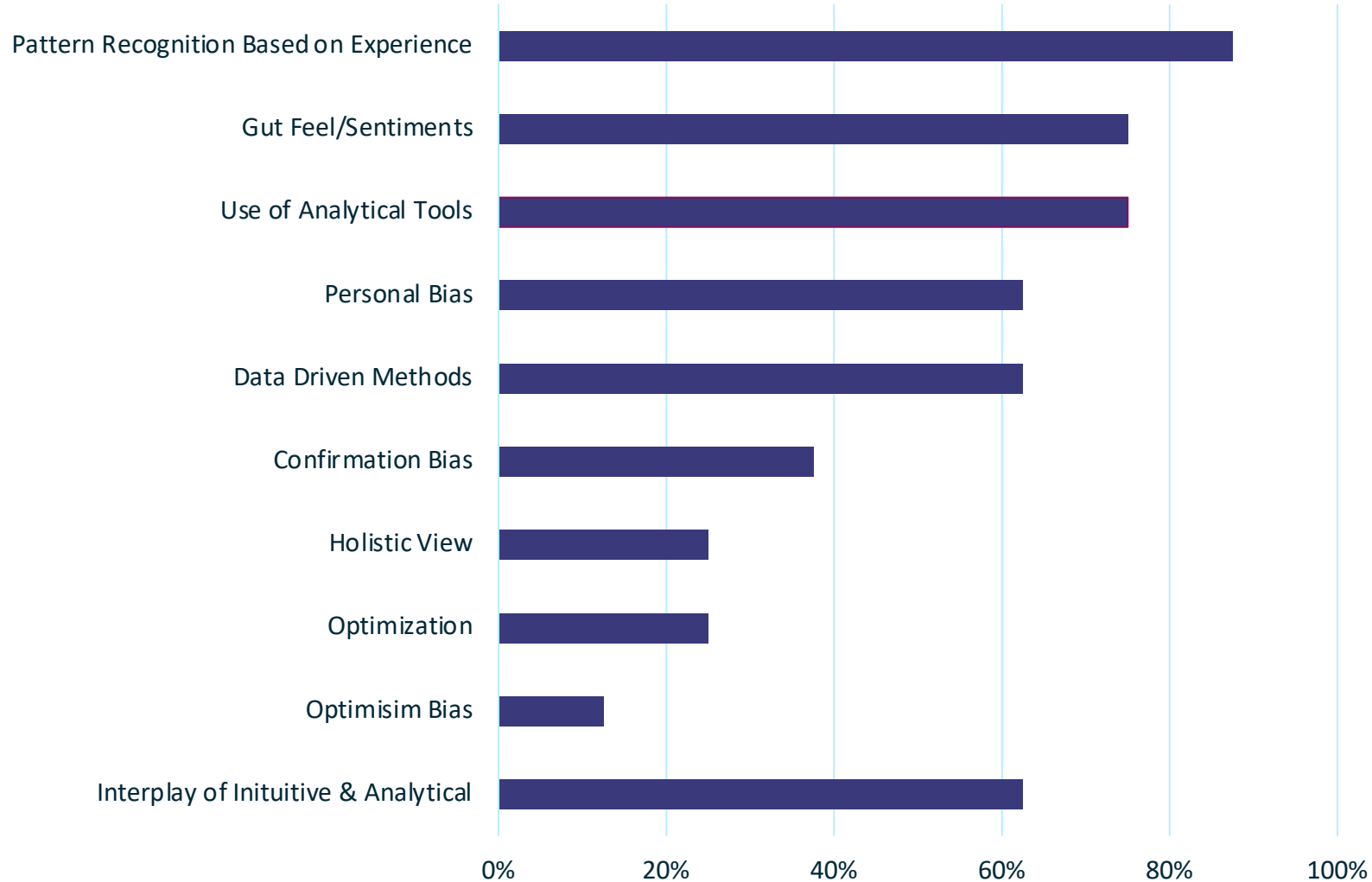


....AND also indicated funding source was important or very important

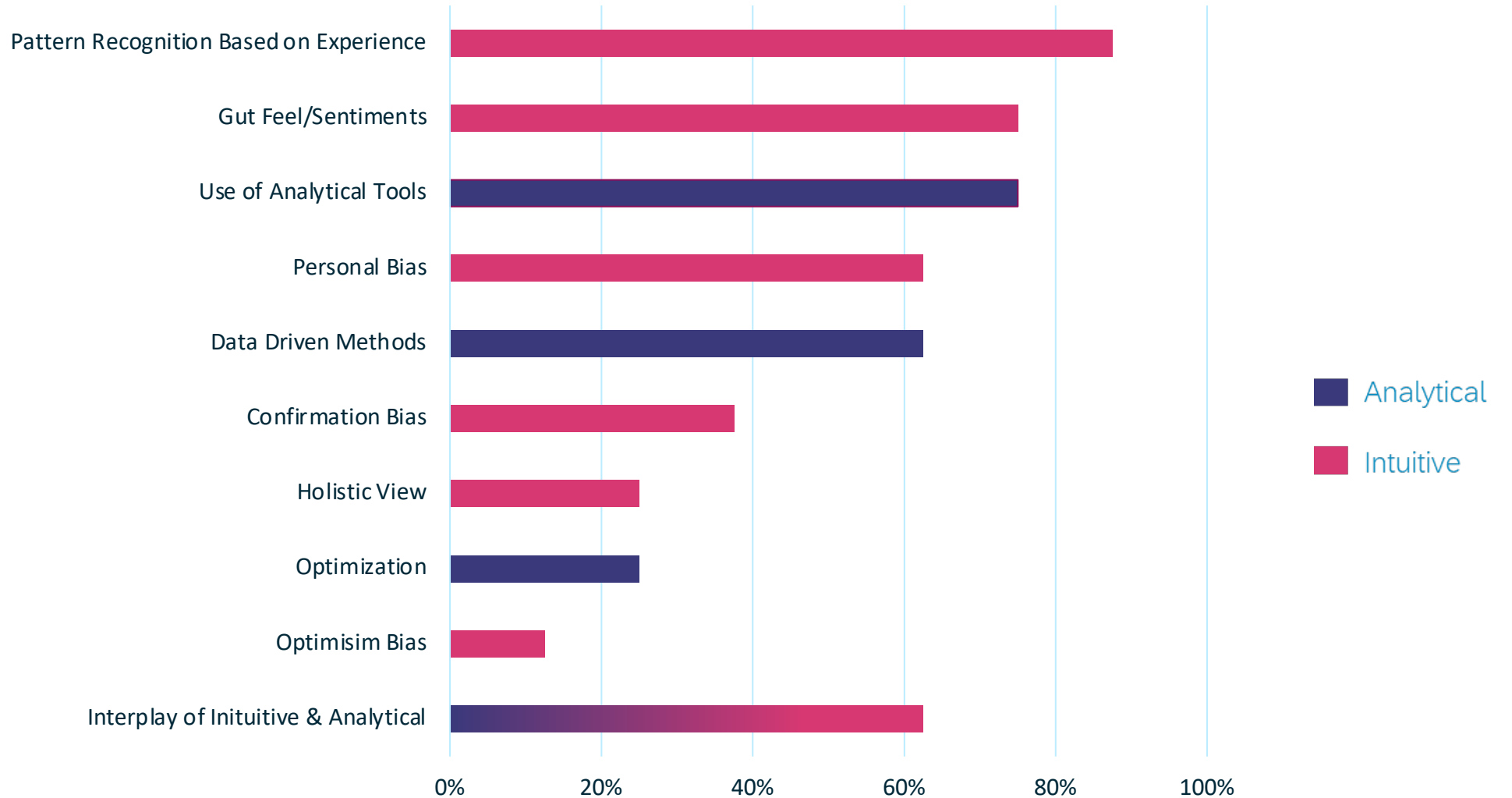


Project Manager & Leader Perspectives

Oil & Gas Project Manager Decision Criteria



Oil & Gas Project Manager Decision Criteria



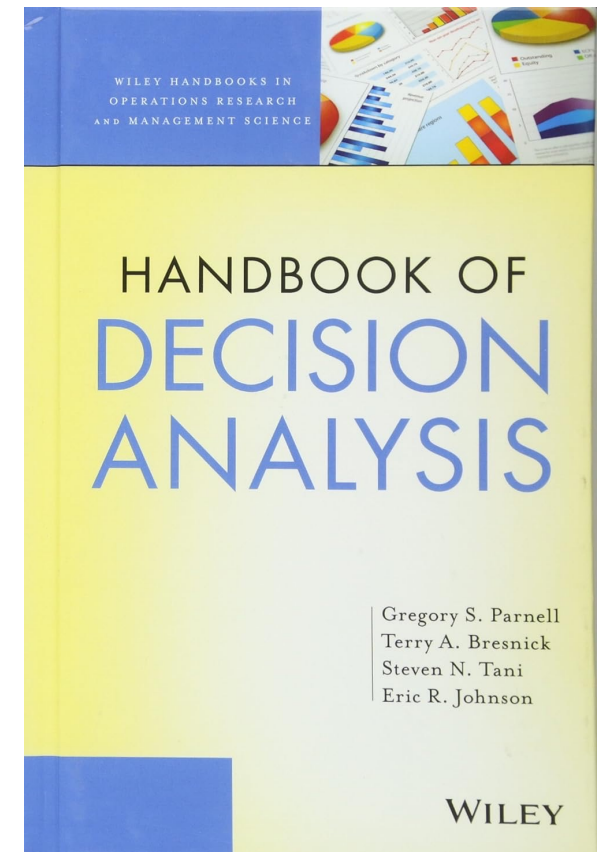
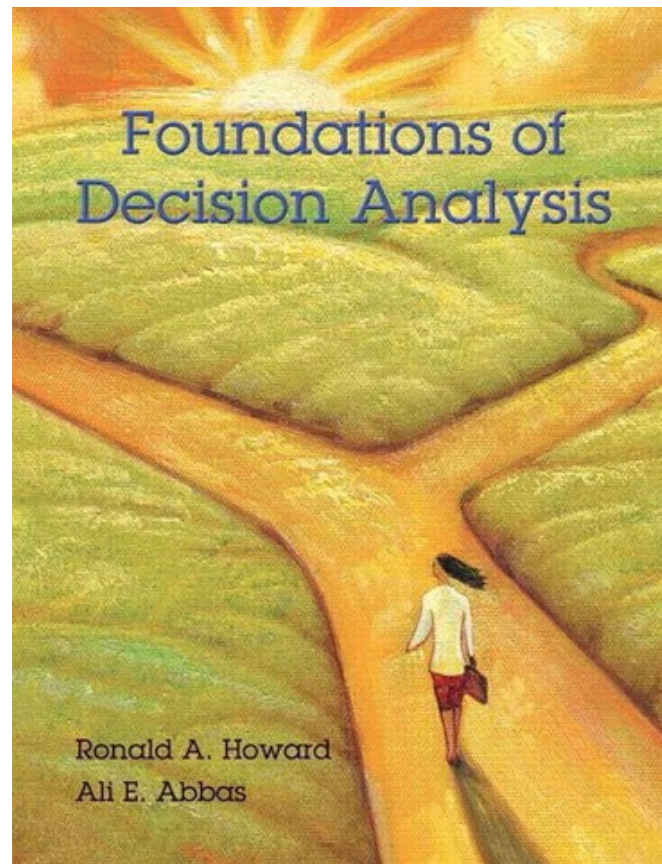
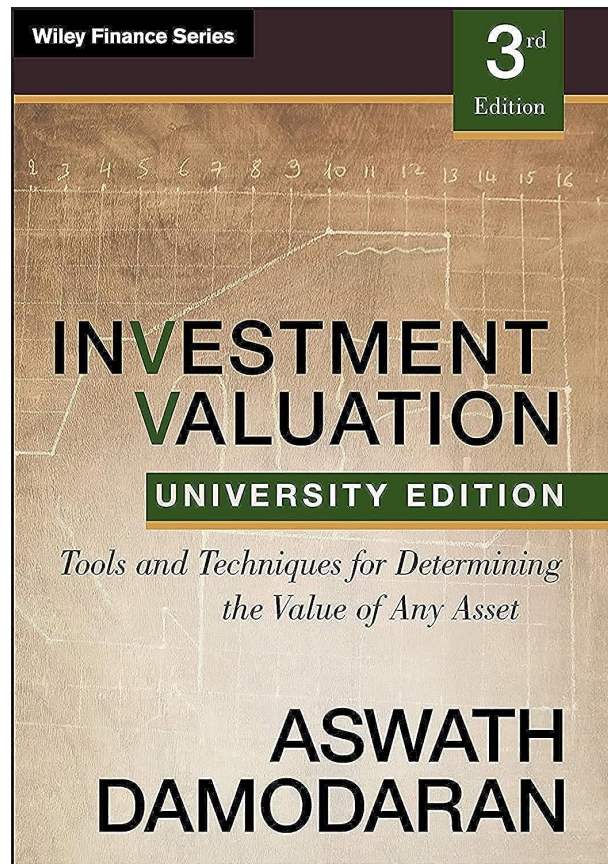
Lenses of Decision Making

Analytical

Intuitive

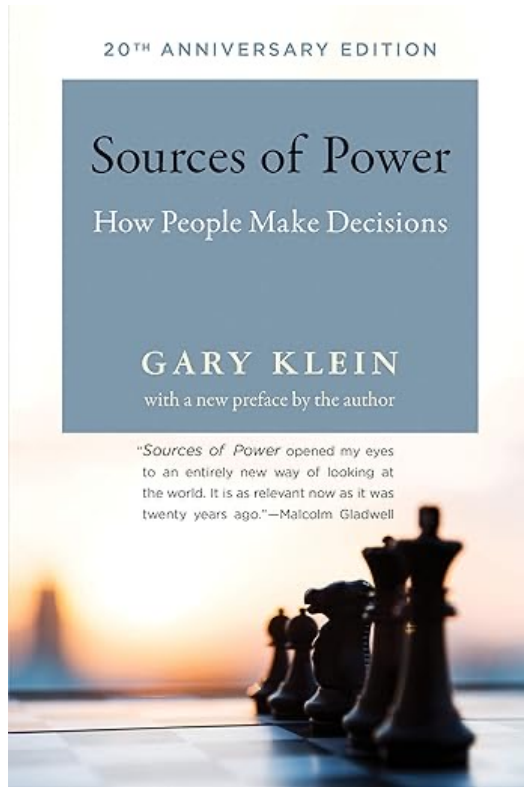


Analytical Approaches

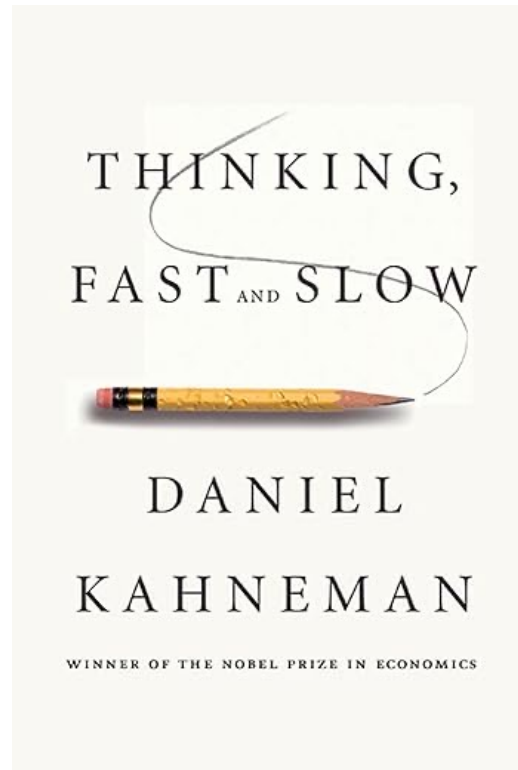


Intuitive Approaches

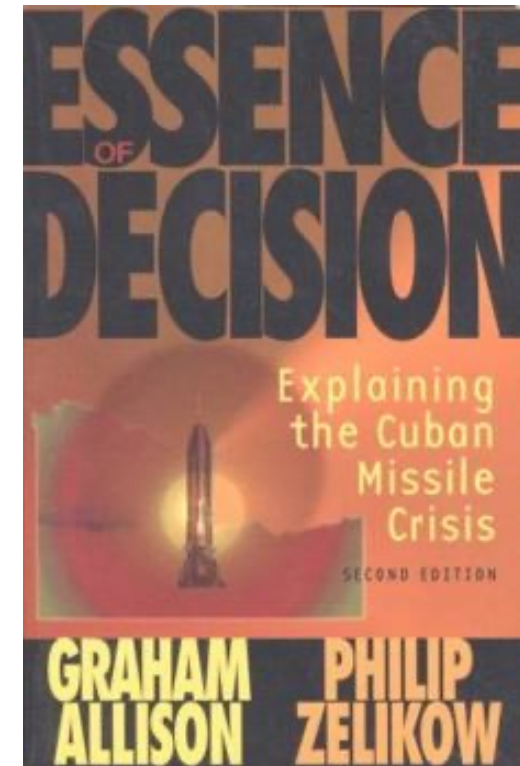
Naturalistic



Behavioral



Organizational



Decision Maker's Bill of Rights As Framework

Decision Maker's Bill of Rights

As a decision maker, you have the right to:

- A **decision frame** that structures the decision in the context most relevant to your needs,
- **Creative alternatives** that allow you to make a selection among viable and distinct choices,
- **Relevant and reliable information** upon which to base your decision, including the uncertainty of the information
- An understanding of the **potential consequences** of each alternative based on your choice criteria
- A **logical analysis** that allows you to draw meaningful conclusions from the information to reach **clarity of action**
- **Effective facilitation** to gain alignment and commitment to action



Naturalistic Decisions.... Why Humans Are Great

— A Human Superpower

Expertise Enables:

- Pattern Recognition, See Big Picture
- Mental Simulation & Scenario Thinking
- Finding Leverage Points: Details That Matter
- Perception of Differences & Anomalies
- Analogical Reasoning

Klein, Gary, 1999, Sources of Power: How People Make Decisions (MIT Press: Cambridge, Massachusetts).

ExxonMobil



Gary Klein's Recognition Primed Decision Model

Expertise Enables....

Situational Recognition

Goals

Cues

Expectations

Typical
Responses

Finding Course of Action

Possible
Course of
Action

Probability of
Success

Implement
Course of
Action

— Decision Maker & Expert Caution

Expertise Cannot Be Developed When....

- Domain is Dynamic – e.g. Business Environment Shifts
- Predicting Human Behavior Is Critical – e.g. Strategic Interactions
- Long Time Between Action & Outcome – e.g. Long Business Cycle
- No Repetition of Action – e.g. One Of A Kind Investment

Ways To Apply Naturalistic Lens

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Use interviews to identify areas & limits of expertise

Use experts to identify “leverage points”

Allow decision frames to evolve

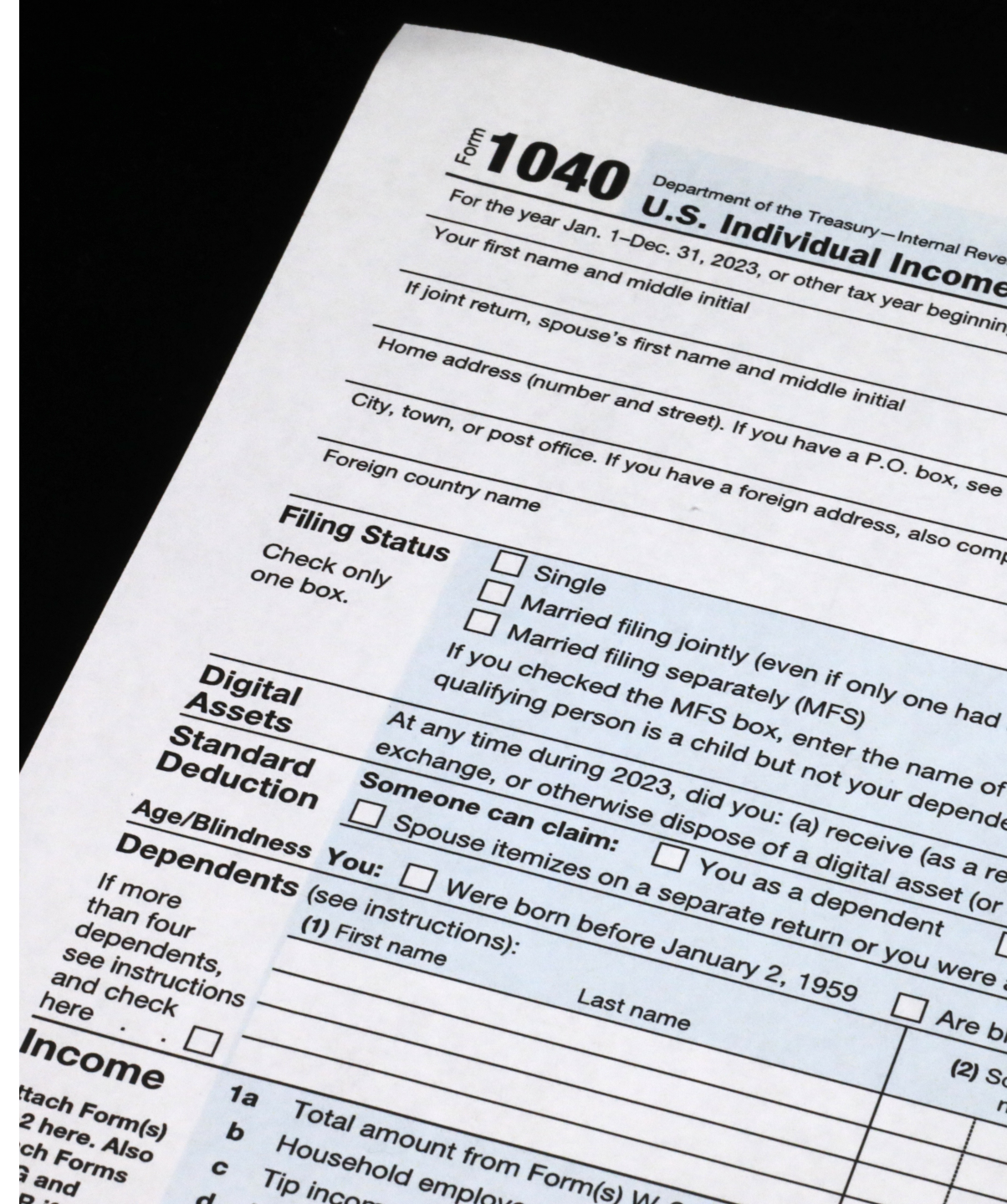
Behavioral Decisions.... Why Humans Fall Short

Reality Check On Rationality

Human Nature Can Constrain Rationality

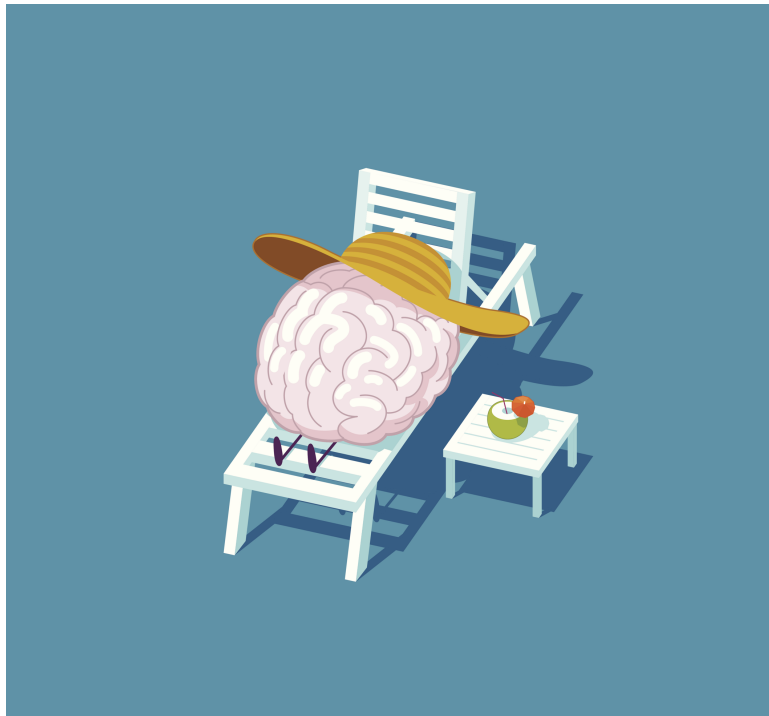
Example Factors:

- Limited Cognitive Resources
- Perception of Loss & Gain
- Framing of Time-Horizons



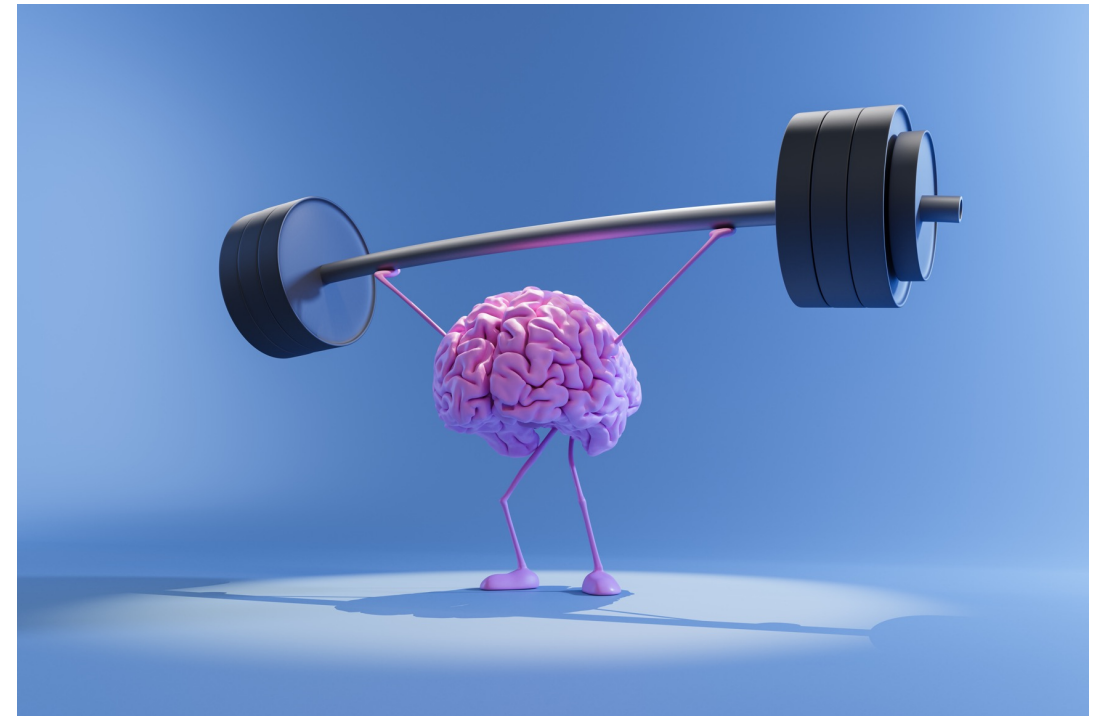
Behavioral Perspective

System 1



Intuitive: Effortless, Fast, Automatic

System 2

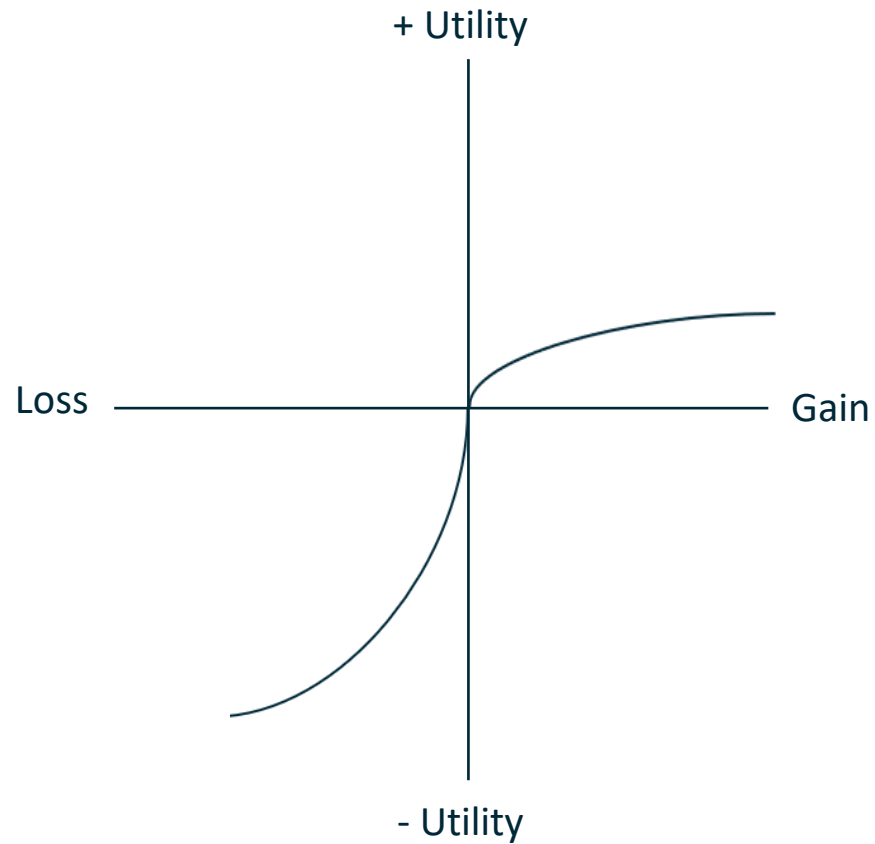


Analytical: Effortful, Slow, Deliberate

Behavioral Perspective

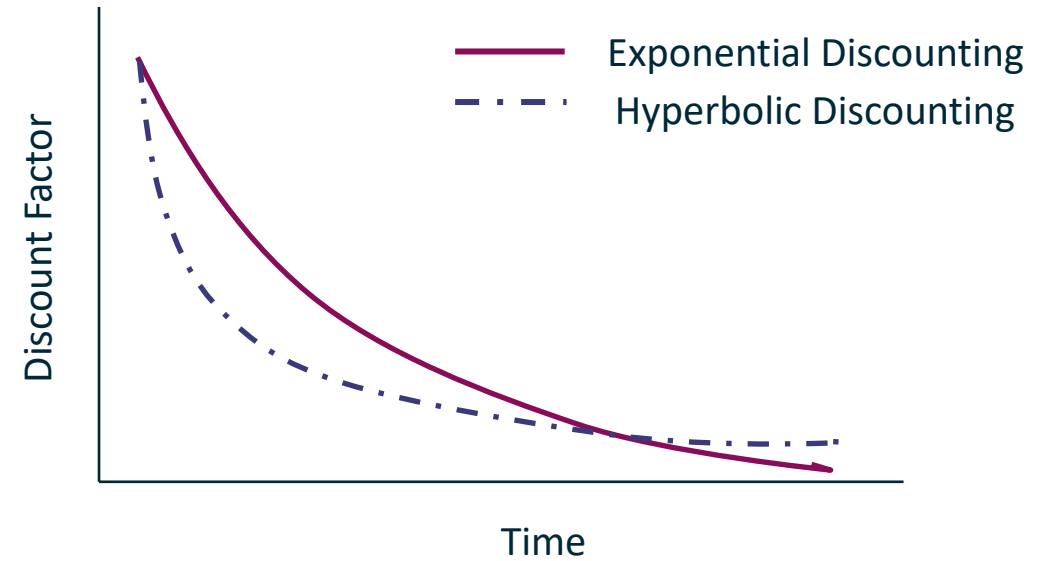
Loss Aversion

“I’ll spend a lot more to avoid a loss than achieve a gain.”



Hyperbolic Discounting

“I choose short-term gratification over my long-term best interest.”



Ways To Apply Behavioral Lens

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Calibrate sense of loss/regret

ABZ Phrase: “Which side of wrong do you want to be on?”

ABZ Phrase: “Better to do something rather than not do it & wish you had”

Calibrate short-& long-term time-horizons

Papers: Mental Accounting Matters; Timid Choices & Bold Forecasts

Use aids to support the decision process

Bias Observation Checklist - Appendix A of Noise

Quality of Decision Making Orientation Scheme (QoDoS)

Kahneman, D., & Lovallo, D. (2000). Timid Choices and Bold Forecasts: A Cognitive Perspective on Risk Taking. In D. Kahneman & A. Tversky (Eds.), *Choices, Values, and Frames* (pp. 393–413). chapter, Cambridge: Cambridge University Press.

Thaler, R. H. (2000). Mental Accounting Matters. In D. Kahneman & A. Tversky (Eds.), *Choices, Values, and Frames* (pp. 241–268). chapter, Cambridge: Cambridge University Press.

Kahneman, Daniel, Sibony, Olivier; Sunstein, Cass , 2021, Noise: A Flaw In Human Judgement. (Little Brown, New York, NY)

Donelan R, Walker S, Salek S. The Development and Validation of a Generic Instrument, QoDoS, for Assessing the Quality of Decision Making. *Front Pharmacol.* 2016 Jul 13;7:180. doi: 10.3389/fphar.2016.00180. PMID: 27468267; PMCID: PMC4942854.

Organizational Decisions.... Why Groups of Humans Matter

— Humans: Social Creatures

Graham Allison's Three Models

Model I: Rational Actor

- The Analytical Model, i.e “The Econ”

Model II: Organizational Behavior

- Why & How The Organization Exists

Model III: Governmental Politics

- Focus on Individuals In The Group

Allison, Graham, 1971, *Essence of Decision: Explaining the Cuban Missile Crisis* (Little, Brown, New York, NY).



— How Organization & Group Norms Influence Decisions

Model II “Organizational” Questions:

1. What capabilities and constraints impact the *information* produced?
2. What capabilities and constraints impact the *alternatives generated*?
3. What capabilities and constraints impact the *ability to implement the choice*?

— How Organization & Group Norms Influence Decisions

Model II “Organizational” Questions:

1. What capabilities and constraints impact the *information* produced?
2. What capabilities and constraints impact the *alternatives generated*?
3. What capabilities and constraints impact the *ability to implement the choice*?

Model III “Group” Questions:

1. Who Plays? *Whose views & values* will shape the decision?
2. What factors shape *each player’s views* and values?
3. What are the *processes for aggregating competing perceptions*, preferences and positions in making a decision?

Group Processes That Influence Decisions & Outcomes

Decision Process & Decision Maker's Preferences

Principal-Agency: Asymmetric Information, Competing Objectives

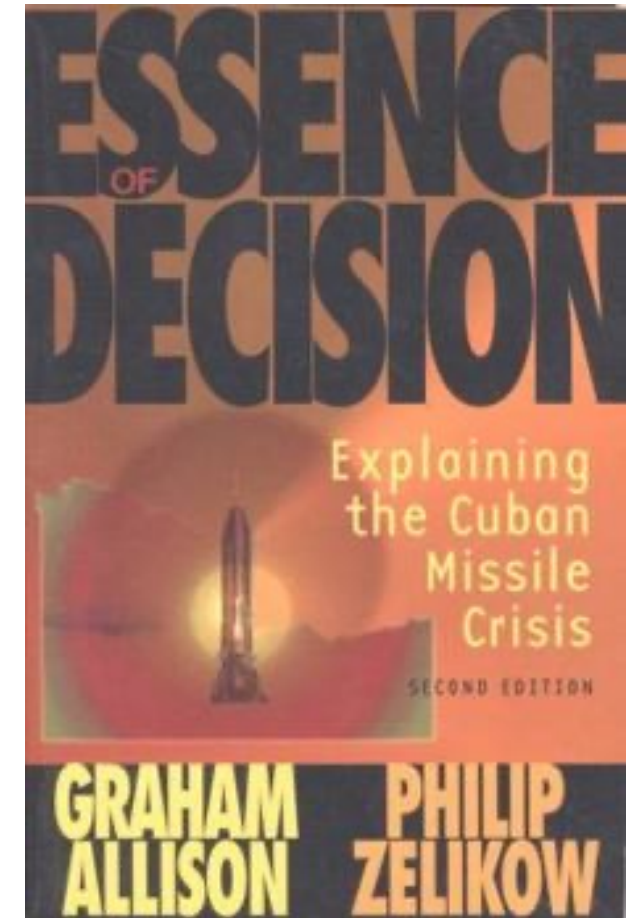
Participants: Who Plays & How

Decision Rules & Norms

Processes For Framing Issues, Setting Agendas

Desire For Consensus, Group Think

Complexity of Joint Decisions & Actions



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Tailor the process to the decision maker's style preferences

Tailor the process to optimize decision rules & norms

Manage competing objectives & information asymmetry

Use interviews to identify individuals who will shape the ultimate decision

Analytical
Naturalistic

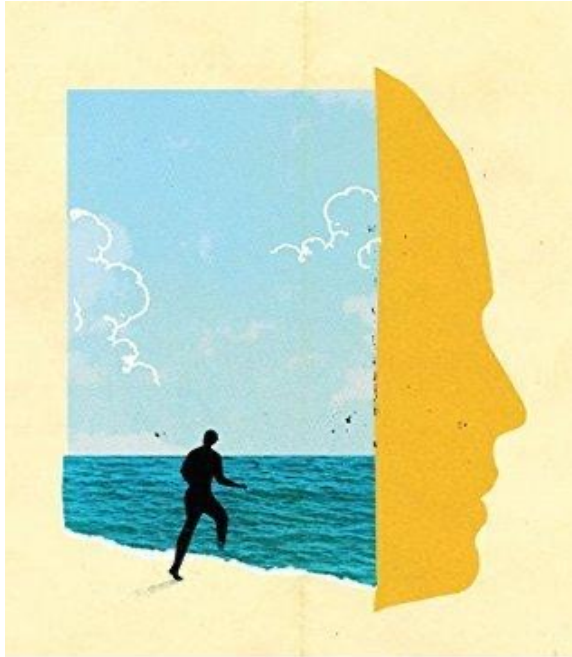
Behavioral
Experimental

Organizational



— Decision Maker Focus = Great Framing & Facilitation

How to identify and surface intuition

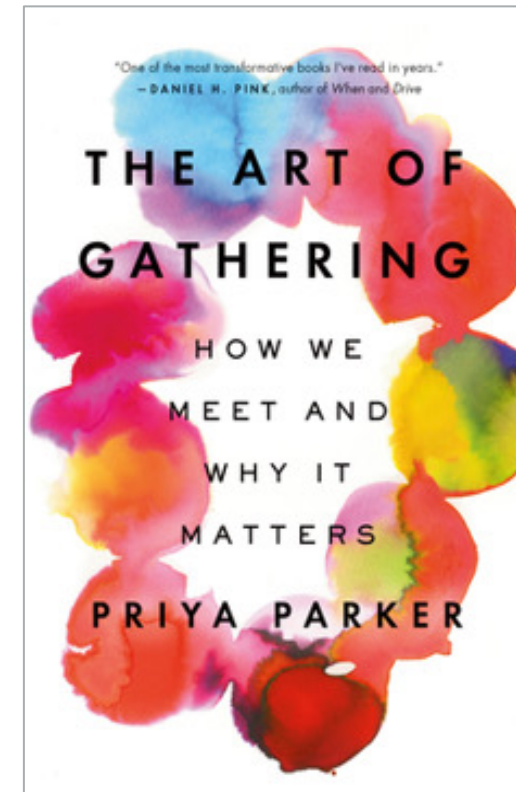


PRACTICAL EMPATHY
For Collaboration and Creativity in Your Work
by Indi Young Foreword by Tom Stuber

Rosenfeld

Practical Empathy
By Indi Young

How to design & manage group dynamics



The Art of Gathering
By Priya Parker

— And Ever Since Then..... At Facebook/Meta

Decision Professional: I'm not trying to replace your intuition. I'm trying to put it into some framework that would allow you to test its coherence.

Decision Maker: Like a Shrink?

Decision Professional: Sort of. A shrink who uses formal models.

Gilboa, Itzhak and Rouziou, Maria and Sibony, Olivier, Decision Theory Made Relevant: Between the Software and the Shrink (January 1, 2018). HEC Paris Research Paper No. ECO/SCD-2018-1266, Available at SSRN: <https://ssrn.com/abstract=3178715> or <http://dx.doi.org/10.2139/ssrn.3178715>

Let's Design For Decision Makers & Meet Leaders On Their Ground

Alison Zabik, PE

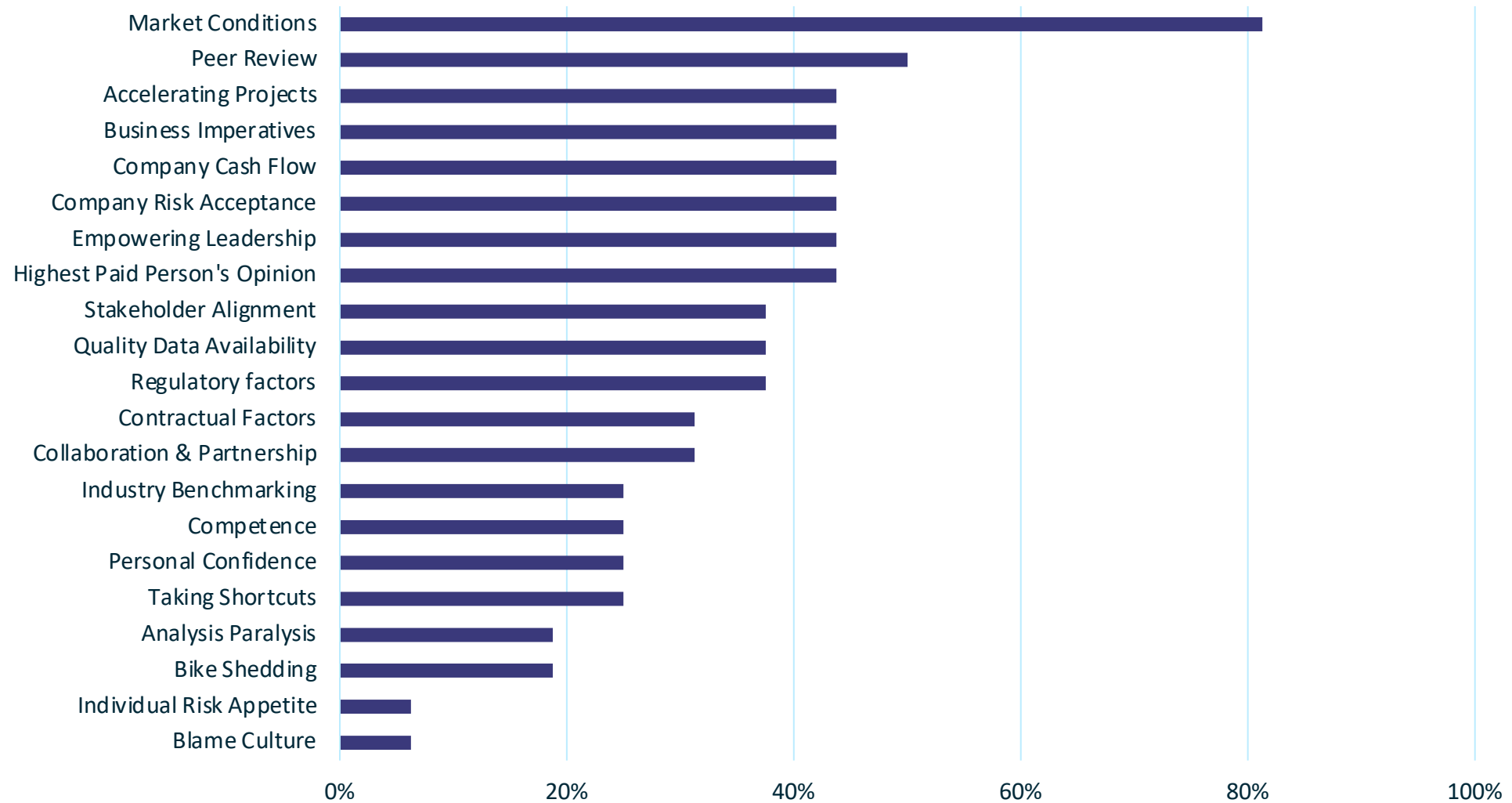
Alison.b.zabik@exxonmobil.com



Appendix

Additional Content on Upstream Decision Makers

Influencing Factors in Project Manager Decisions



Factors Indicate Both Analytical and Intuitive Criteria

