

BA 301

BA 301 Winter 2011 Chapter 4 Solve

Research & Analysis of Business Problems

“Beware The Pie”

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Which Average To Use?

Passing Along Social Security

MICHAEL KINSLEY HYPOTHESIZES THAT the typical American family will be handing down Social Security entitlements to their children as an inheritance [Feb. 9]. Using the same Federal Reserve data Kinsley cites, the median net worth of couples ages 65 to 74 in 2004 was \$190,000, including housing assets. By definition of the term *median*, this value is far more representative of the typical American family than the *average* net worth of \$691,000 he quotes—which is skewed higher by the wealthiest 10% of families. That recalculation, combined with the large decline in net worth for most Americans in 2008, considerably weakens his premise.

James Strycharz, HOLYOKE, MASS.

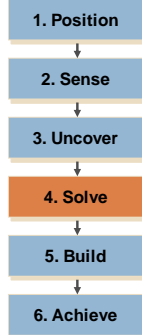
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PSU Problem Solving Process

1. Position
- ↓
2. Sense
- ↓
3. Uncover
- ↓
4. Solve
- ↓
5. Build
- ↓
6. Achieve

Refine the Problem & Develop Alternative Solutions

PSU Problem Solving Process



Avoid Analysis Paralysis

- After all this analysis – what now?
 - 1) An obvious solution, or...
 - 2) Some creative alternatives
- So, if 2.) – How do you decide?
 - Intuition and gut feel helps, but...
 - Force yourself to be objective

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PSU Problem Solving Process



Do A few Checks First

- Make sure the solutions still match the problem
- Make sure the solutions are still consistent with mission, vision and values
- Check for impact on the key stakeholders

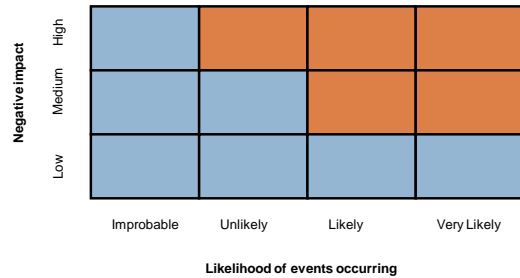
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Think About Risk

- Your risk propensity relative to gain will affect personal decision making:
 - Final seconds of game with rival, coach must choose a play with a.) 95% chance of a tie score or b.) 30% chance of victory
 - College senior with talent must choose a.) medical school (80% chance of success) or b.) acting (20% chance of success)

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Think About Risk



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Objective Decision-making Tools

- Use objective criteria and rational methods
 - A ranking matrix with criteria
 - Screening tables
 - Pros and cons
 - Pass/Fail on criteria
 - Have a What-If? meeting

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Decision Making Example

- Should I buy a new heat pump or repair the old one?
- Issues:
 - The old heat pump was installed in 2000 – clearly a lemon!
 - New heat pumps are far more efficient than the old ones.
 - New heat pumps use Puron as coolant.
 - Natural gas is not available in my neighborhood.
 - Unknown long term maintenance costs on old heat pump.

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Decision Criteria

- Short term financial impact.
- Long term financial impact.
- Energy efficiency.
- Peace of mind!
- Air filtration capability.

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Ranking Matrix

- Give a weight to each of the criteria
 - ▣ Total of weights must add to 1
- Rank each solution in terms of how well it satisfies the criteria
 - ▣ From 1 to 10
- Multiply the weights by the ranks for each option and add them up
- Higher score wins

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Screening Table

- Judge alternatives as satisfactory or not – choosing a camera

Alternatives	MPixels	Price(\$)	Memory	Zoom
Sony	12	\$299	8G	4x
Nikon	10	\$399	6G	3x
Canon	10	\$309	8G	8x
Constraints	>8	<\$350	>4	>=3x

Pros And Cons

- List the pros
 - ▣ Score them on a +1 to +10 scale
- List the cons
 - ▣ Score them on a -1 to -10 scales
- Add them up
 - ▣ Positive is good, or look for a difference in the scores for multiple options

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Decision Making In Turbulent Times

- Don't go it alone, involve others, share info
- Learn, don't punish
- Know when to bail
- Practice the five "WHYS"
- Engage in rigorous debate

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PSU Problem Solving Process

1. Position



2. Sense



3. Uncover



4. Solve



5. Build



6. Achieve

Evaluate the Alternatives
and Choose the Best Solution.

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