Behavioral Analytics: Not just for retail

Steve Roemerman, Chairman Lone-Star Analysis
Caleb Baucom, Price-to-Win specialist, L3Harris

Preview Slide

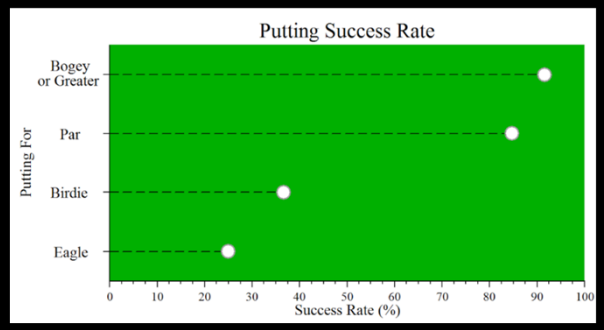
- What is Behavioral Analytics
- Predictably Irrational Behavior
- Specific use the Defense Contract capture process
- Customer buying behavior
- “Black Hat” Analysis/Competitor bidding behavior
- “Blue Waters” market segmentation
- Discussion Panel
- Q&A

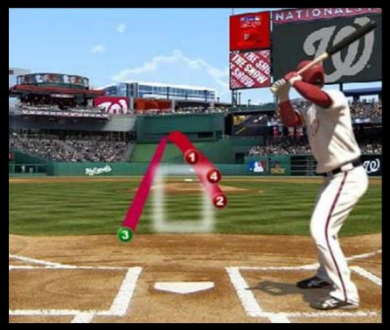
What is Behavioral Analytics

- Data driven analytics of human behavior that provides insight into the motivations and actions of people
  - Back-test for accuracy
  - Identify patterns
  - Predict future behavior
  - Prescribe solutions based on prediction
    - SR Example Doctor Example

Examples of Predictably Irrational Behavior

- Predictive cognitive failures
  - A bat and ball together cost $1.10, the bat cost $1 more than the ball. How much does the ball cost?
- Loss Aversion (score casting)
  - Sports Example: Putting, Pitching, Hitting, going for on 4th down

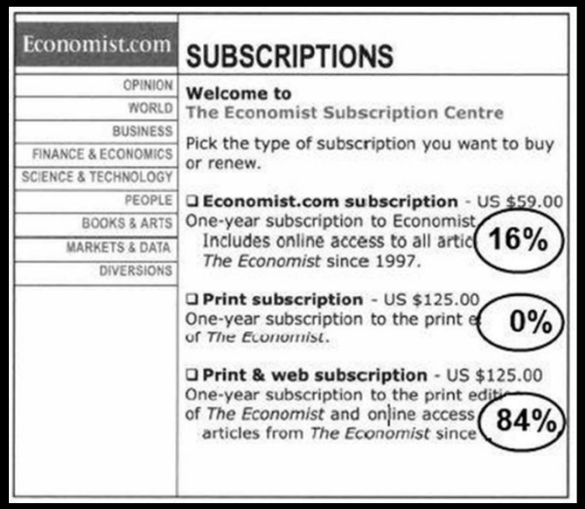




  - SR Example: willing to take huge loss to hold onto business (95% vs 5%)
- Gov't causing irrational behavior
  - CB Example: taking a money losing contract to get rates down

Examples of Predictably Irrational Behavior

- Dummy Choices
  - The Economist Subscription – Dan Ariely



Defense Example – OAX Fly Off

- Max Speed: 320 knots
- Range: 1,550 miles
- Ceiling: 35,105 ft
- MTOW: 9,998 lb

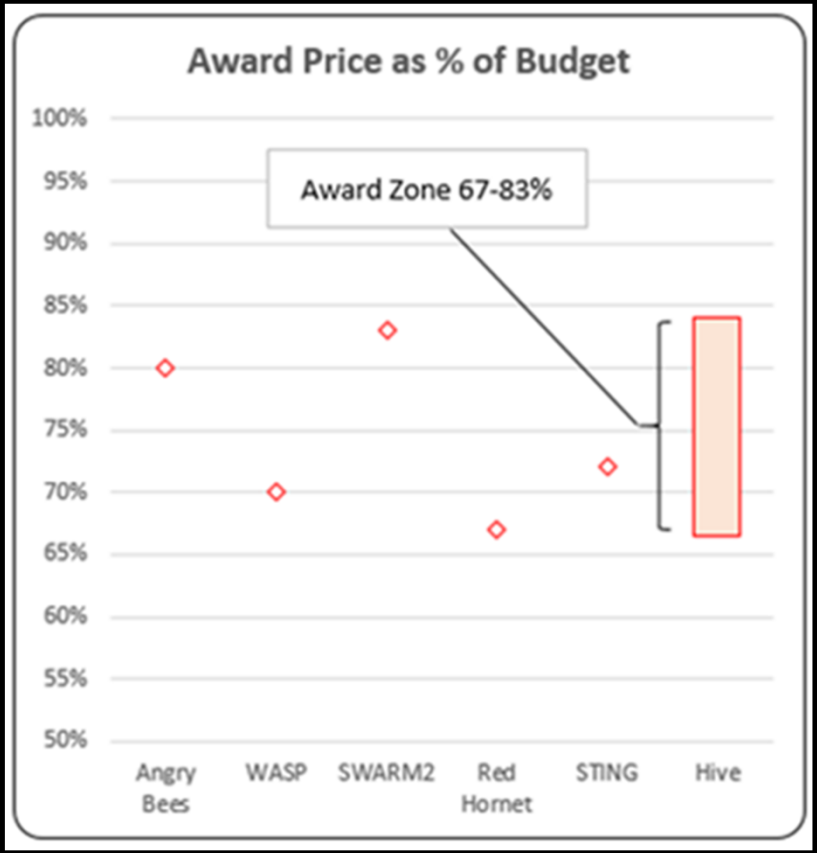
- Max Speed: 316 knots
- Range: 1,774 miles
- Ceiling: 35,007 ft
- MTOW: 11,646 lb

- Max Speed: 450 knots
- Range: 2,500 miles
- Ceiling: 45,000 ft
- MTOW: 22,000 lb

Customer Buying Habits

- What percentage of the total budget has the customer awarded contracts? Is there a pattern?

- Are different types of customers prone to predictable behavior?
  - Navy, AF, Army, Marine?
  - SR Example



Black Hat Analysis / Competitive Intelligence

- What strategy will my competitor use?
- What do they think I will do?
- What is their motivation?
  - Business Base
  - Financial
  - Competition
  - Customer
  - SR Example – TruPredict
  - CB Example – Box out

Strategic Price		$0.00	
Business Base Motivators	Basic Annuity	☐	Likelihood: 0.0%
	Positioning for Follow-on	☐	↓0%
	Potential for Changes and Upgrades	☐	L (0%) H (0%)
	Foundation	☐	
Financial Motivators	Marginal Pricing	☐	Likelihood: 0.0%
	Cash Flow	☑	↓4%
	Current Financial Performance	☐	L (2%) H (5%)
	Recent Bid History	☐	
	Cost Avoidance	☐	

Blue Ocean Market Segmentation

- Create a new, uncontested market space
  - No competitors
  - New customer base

- Use behavior analytics to invent products/services to meet customer needs
  - Spectral Bid Auctions
  - Machine Learning
  - Parametric Should-Cost models

Discussion Topics

- How do you see AI and Machine Learning changing B2B business over the next 5 years?
- What are the biggest challenges to applying Behavioral Analytics to business?
- What ethical considerations must be made with applying Behavioral Analytics?

Q&A