Customer Satisfaction Measures

Multivariate Solutions

Customer Satisfaction Performance Ratings

- Performance ratings create a variety of analysis possibilities:
  - Derived Importance (created using a dependent variable)
  - Correlations
  - Regression Analysis

- For a survey that includes stated or derived importance:
  - MATRIX Analysis
  - Quadrant Analysis
  - Stated vs. Derived Importance Analysis

- For Survey that includes competitor performance:
  - Head-to-head competitor analysis
  - Gap analysis

Example Survey Structure

- Company Customer Satisfaction (Performance)
  - Joe's Grub hamburgers are fresh, never frozen
  - Joe’s Grub steaks are prepared exactly as ordered
  - Staff is very attentive, in tune with your needs
  - Servers regularly suggest new items throughout the meal (appetizers, entrees, desserts.
  - Service is personalized, I feel like they know me
  - Joe's Grub is the place for me
  - Sandwiches and salads served by Joe's Grub are made to order

A survey might have this array of performance ratings, or ‘applies to’ check-offs.

Surveys Including Customer Satisfaction Ratings

- Correlation
  - The correlation coefficient, indicates the strength and direction of a linear relationship between two variables.
  - Those variables, in our case, are the dependent variables such as Purchse Intent, and company performance attributes.
  - It is between -1 and 1.

- Regression Analysis
  - Regression analysis examines the relation of a dependent variable (response variable) to specified independent variables (explanatory variables).
  - The dependent variable is something like Purchase Intent or Overall Satisfaction.
  - A Regression allows estimating the *value* of the dependent variable relative to the dependent variable.
  - In a regression, typical output highlights the significant variables. These are the ones that have a statistical impact on, say, ‘Overall Satisfaction’.

Surveys Including Customer Satisfaction Ratings

- **Types of Dependent Variables**
  - Purchase Intent
  - Likelihood to Recommend (or prescribe a medication)
  - Likelihood to Return
  - Number of Purchase Occasions
- **More sophisticated approaches that shout be suggested by Multivariate Solutions**
    - MATRIX Analysis (Derived Importance vs. Performance)
      - Derived Importance is the *association* of performance attributes to a dependent variable *derived* by either correlation or regression analysis
    - Graphically displayed Regression Analysis
- **Effective Uses**
  - To determine which brand attributes, communications messages, drug effects are driving the dependent variables.

Surveys Including Surveys Including Customer Satisfaction Ratings Ratings

Snack Food Test

Correlations

	Barbecue Curls	Mustard Pretzels
	Purchase Intent	Purchase Intent
Good for me, wholesome	0.60	0.66
It is a brand I trust	0.52	0.62
It is a treat for me/my family	0.48	0.66
It is for people like me	0.45	0.73
It is a brand for kids	0.41	0.58
Brand with vitamins	0.37	0.56
It is a modern, up-to-date, contemporary brand	0.35	0.63
It is a high quality brand	0.31	0.60
It is original, different	0.21	0.67
Are high quality products	0.20	0.71
Are for someone like you	0.20	0.71
Fun to eat	0.19	0.68

The above correlation is testing snack attributes against Purchase Intent. The new product, 'Barbecue Curls', have low correlations for quality, differentiation, and fun.

The established product, 'Mustard Pretzels', has stronger associations with purchase intent.

Surveys Including Customer Satisfaction Ratings

Regression Analysis

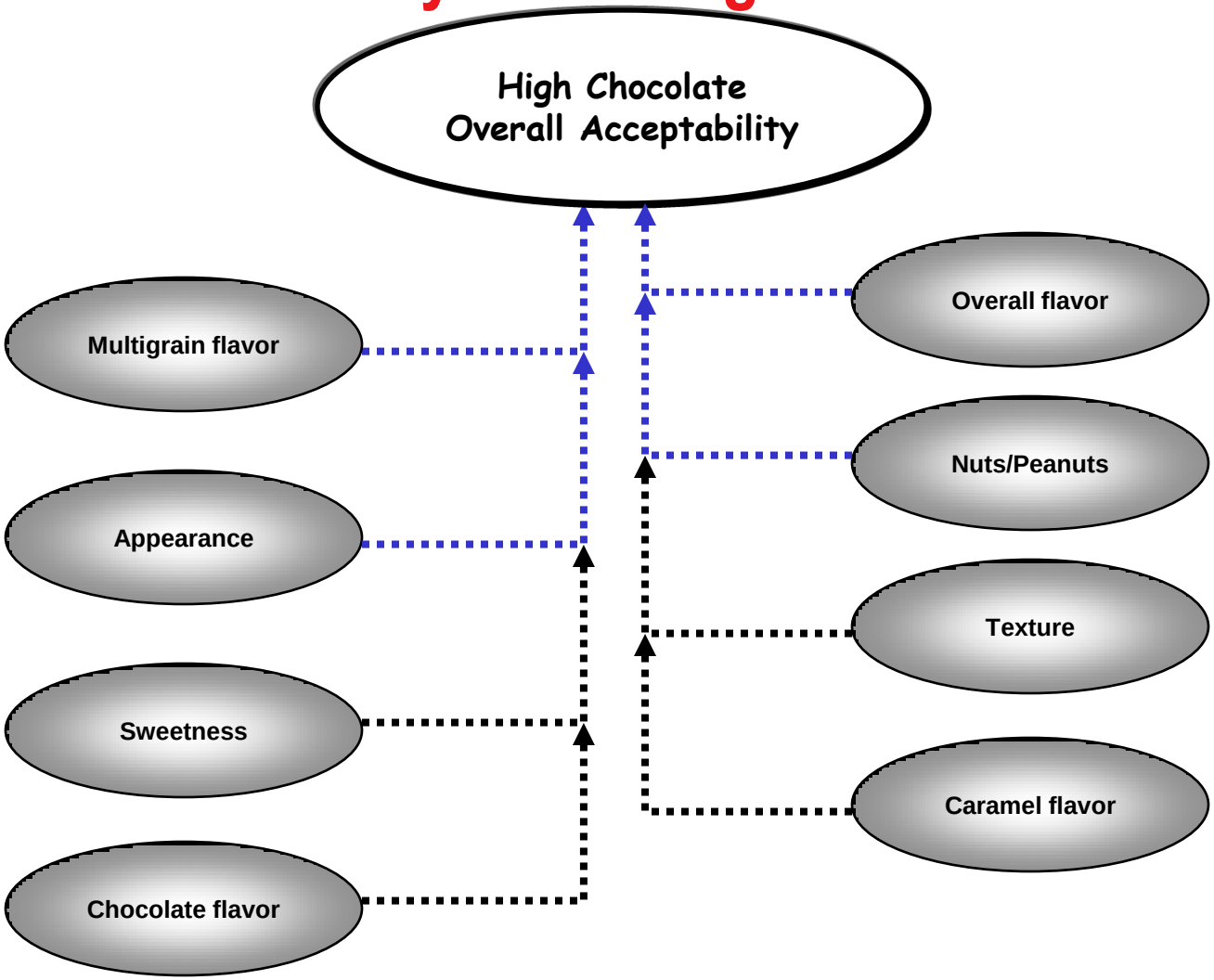
Joe's Grub	***Standardized Coefficients***	
Overall, how satisfied are you with your past dining experience at Joe's Grub?	***Beta***	***Significance***
A blue jeans kind of place	**0.34**	**0.01**
A place for lunch with co-workers	**0.23**	**0.07**
Warm, inviting feels like home	**0.15**	**0.25**
Comfortable and casual like an old friend	**0.12**	**0.33**
No frills, no charm, just the essentials	**0.05**	**0.68**
For people like me	**0.04**	**0.75**
Romantic, intimate, has some charm	**-0.01**	**0.94**
Rowdy, noisy, feels like a party	**-0.07**	**0.53**
A dressy kind of place	**-0.17**	**0.13**
[NOT] Go there to see and be seen	**-0.23**	**0.06**
Dependent Variable: Overall, how satisfied are you with your past dining experience at Joe's Grub?		

The above regression tests personality performance drivers for Joe's Grub. Positive attributes are shaded in gray. They are 'drivers'—or brand equity—for Joe's Grub.

Negatively significant variables are important as well. They are shaded in peach. They are negative Brand Equity. When interpreting a negatively significant variables, place a [NOT] in front of it. For example, Joe's Grub is NOT a place to go and be seen.

Graphic Display Regression Analysis

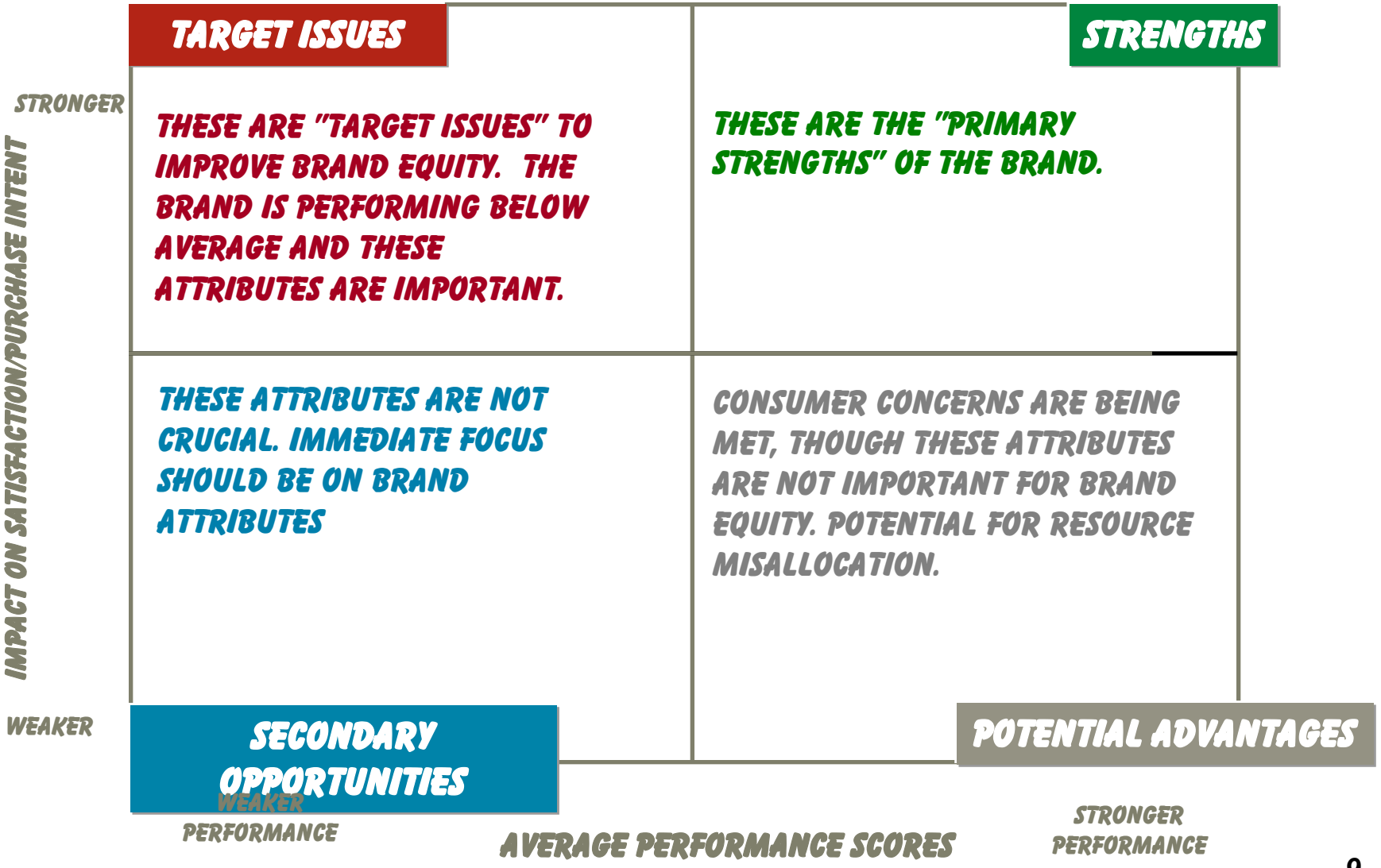
DD's Healthy Bars - High Chocolate



Regression can also be shown in graphic form.

The blue dotted lines indicate statistical significance.

MATRIX Analysis



MATRIX Analysis

Macon, Ga

		Likelihood to Recommend Joe's Grub	Correlation	Perf	Impact Class	Perf Class	Loyalty Class	IMP Rank
e	5	Service is personalized, I feel like they know me	0.188	43%	High	Worse	Target	1
a	1	Joe's Grub hamburgers are fresh, never frozen	0.170	79%	High	Better	Strength	2
f	6	Joe's Grub is the place for me	0.167	79%	High	Better	Strength	3
c	3	Staff is very attentive, in tune with your needs	0.155	66%	High	Better	Strength	4
g	7	Sandwiches and salads served by Joe's Grub are made to order	0.131	25%	High	Worse	Target	5
b	2	Joe's Grub steaks are prepared exactly as ordered	0.051	35%	Low	Worse	Secondary	6
d	4	Servers regularly suggest new items throughout the meal (appetizers, entrees, desserts.	0.031	28%	Low	Worse	Secondary	7
		Mean	0.128	0.508				

The MATRIX above compares Derived Importance (using correlation) with top box customer satisfaction ratings for Joe's Grub.

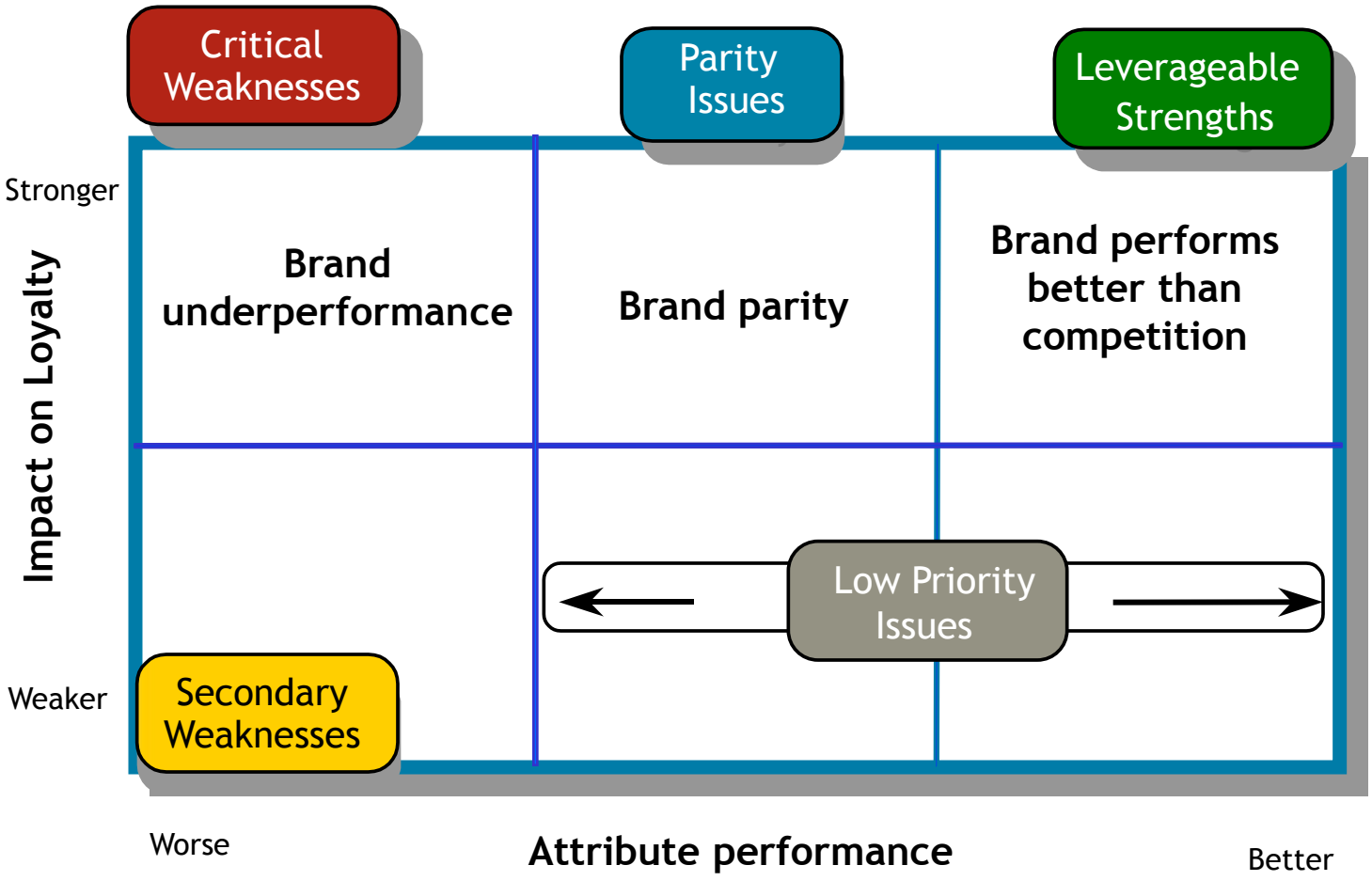
TARGET: The restaurant needs to target personalized service.

SECONDARY: Joe's Grub is not known for its steak.

Customer Satisfaction Ratings

- Survey Includes Competitor Performance
    - Competitive Issue Targeting
    - Gap analysis
    - Correspondence maps

Competitive Issue Targeting



Competitive Issue Targeting

Competitive Analysis
CLIENT vs. Competitor

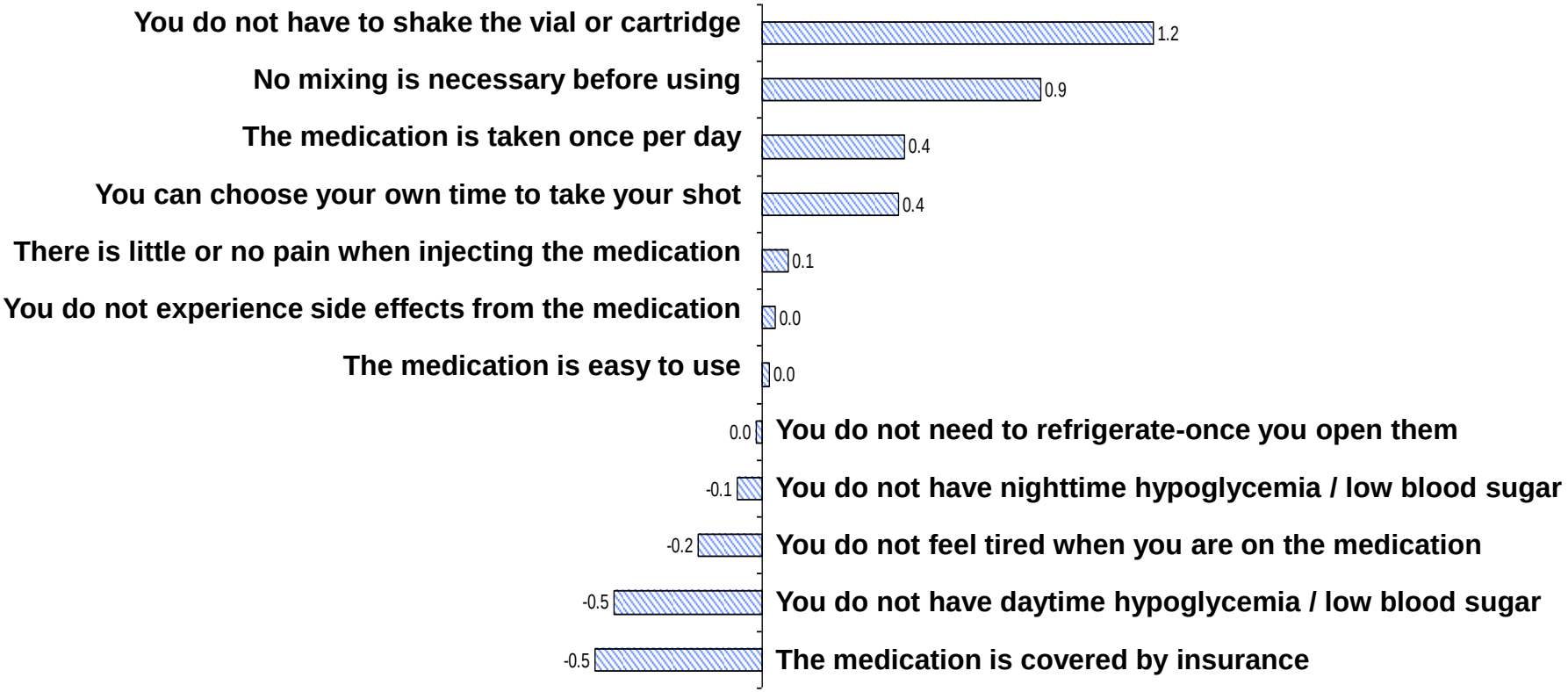
California			Correlation	CLIENT	Competitor	% Def Diff	STAT Diff?	Impact Class	CIP Class	IMP Rank
d	4	Have excellent customer service	0.228	59%	56%	3%	0.77	High	Parity	1
l	12	Have accessible Sales people	0.215	51%	67%	-16%	0.08	High	Weakness	2
g	7	Have a great reputation	0.169	62%	69%	-7%	0.42	High	Parity	3
b	2	Be easy to work with	0.165	68%	56%	12%	0.17	High	Parity	4
e	5	Be advanced technologically	0.157	58%	63%	-6%	0.54	High	Parity	5
h	8	Have product available when I need it	0.147	67%	61%	6%	0.46	High	Parity	6
c	3	Do what is promised	0.127	66%	62%	5%	0.57	Low	Low Priority-Left	8
a	1	Provides great value for the money	0.124	49%	37%	12%	0.18	Low	Low Priority-Left	9
i	9	Have a simple order process	0.096	76%	68%	7%	0.36	Low	Low Priority-Left	10
j	10	Have past experience with our company	0.072	78%	74%	4%	0.60	Low	Low Priority-Left	11
k	11	Be trusted	0.035	70%	69%	0%	0.96	Low	Low Priority-Left	12
f	6	Be better for the environment	0.001	43%	39%	5%	0.64	Low	Low Priority-Left	13
		Mean	0.128	62%						

The Competitor Analysis adds an extra dimension to the MATRIX (direct comparison with a competitor).

A point made in the above example shows that 'Have accessible Sales people' is, for CLIENT, highly correlated with Purchase Intent, but that COMPETITOR beats him at it.

Gap Analysis

CLIENT vs. Competitor

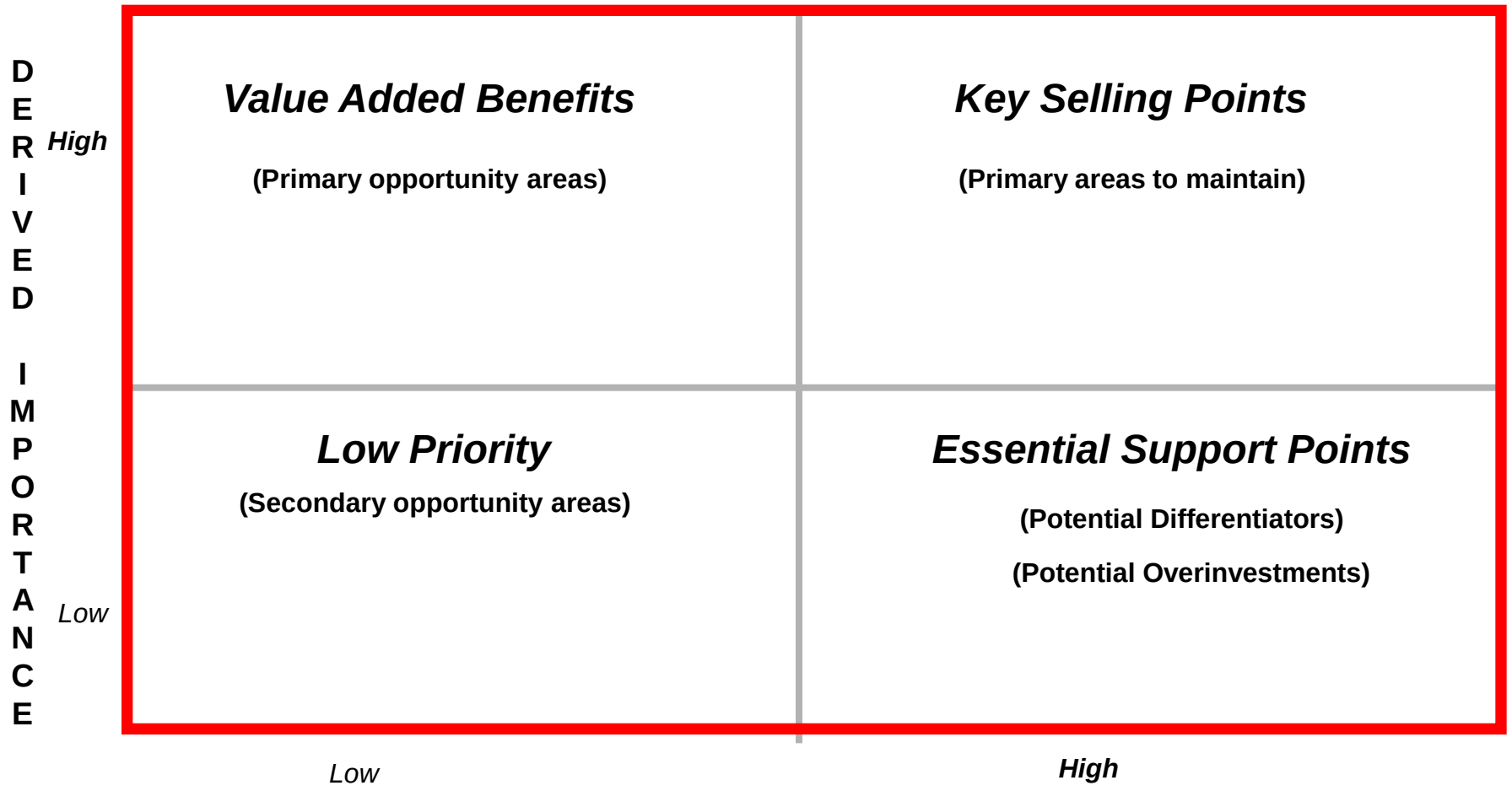


Here, a simple gap shows that CLIENT has an advantage when it comes to mixing the medication, but COMPETITOR is covered by insurance.

Importance and Customer Satisfaction Ratings

- Survey Includes Both Importance and Performance Scores
    - Stated vs. Derived Importance
        - Derived Importance is the *association* of performance attributes to a dependent variable *derived* by either correlation or regression analysis
    - Traditional Quadrant Analysis

Stated versus Derived Importance Analysis



Stated vs. Derived Importance

Stated vs. Derived Importance

Total Sample

			Derived Importance (Correlation)	Stated Importance Top 2 Box (6 7) Percentage	Derived Importance Class	Importance Class	IT Class	IMP Rank
j	10	Consistency in product	0.391	80%	High	High	Key Selling Point	1
b	2	The Product is just right	0.350	67%	High	Low	Value Added Benefit	2
f	6	Receiving the specified strength of syrup	0.295	96%	High	High	Key Selling Point	3
e	5	Reasonable time spent adjusting syrup	0.292	52%	High	Low	Value Added Benefit	4
a	1	The correct mix design	0.283	92%	High	High	Key Selling Point	5
c	3	The syrup arrives on site to specification	0.280	95%	High	High	Key Selling Point	6
h	8	No overtime spent finishing syrup	0.229	67%	Low	Low	Low Priority	7
n	14	A smooth pour	0.191	82%	Low	High	Essential Support Point	8
l	12	No shrinkage cracks	0.185	79%	Low	High	Essential Support Point	9
g	7	The workability of syrup	0.175	85%	Low	High	Essential Support Point	10
d	4	Reasonable time spent testing	0.154	36%	Low	Low	Low Priority	11
k	11	Temperature of syrup	0.151	60%	Low	Low	Low Priority	12

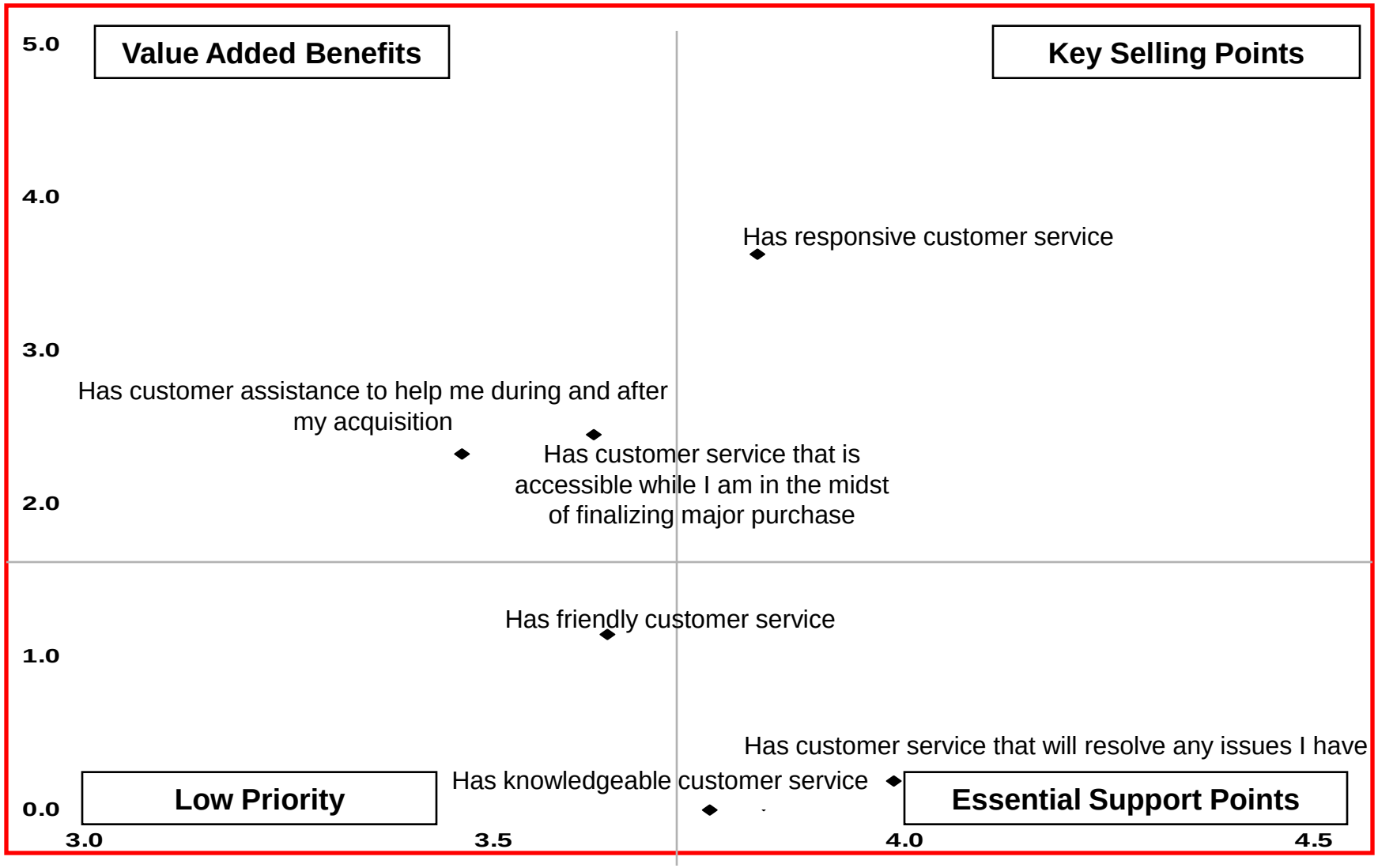
Mean	0.248	74%
Min	0.15093503	36%
Max	0.39055717	96%

Note: Importance is Derived From Syrup Performance correlated with Syrup 'Arriving as Ordered'

This is Stated vs. Derived Importance in Excel. Key Selling Points are Highlighted.

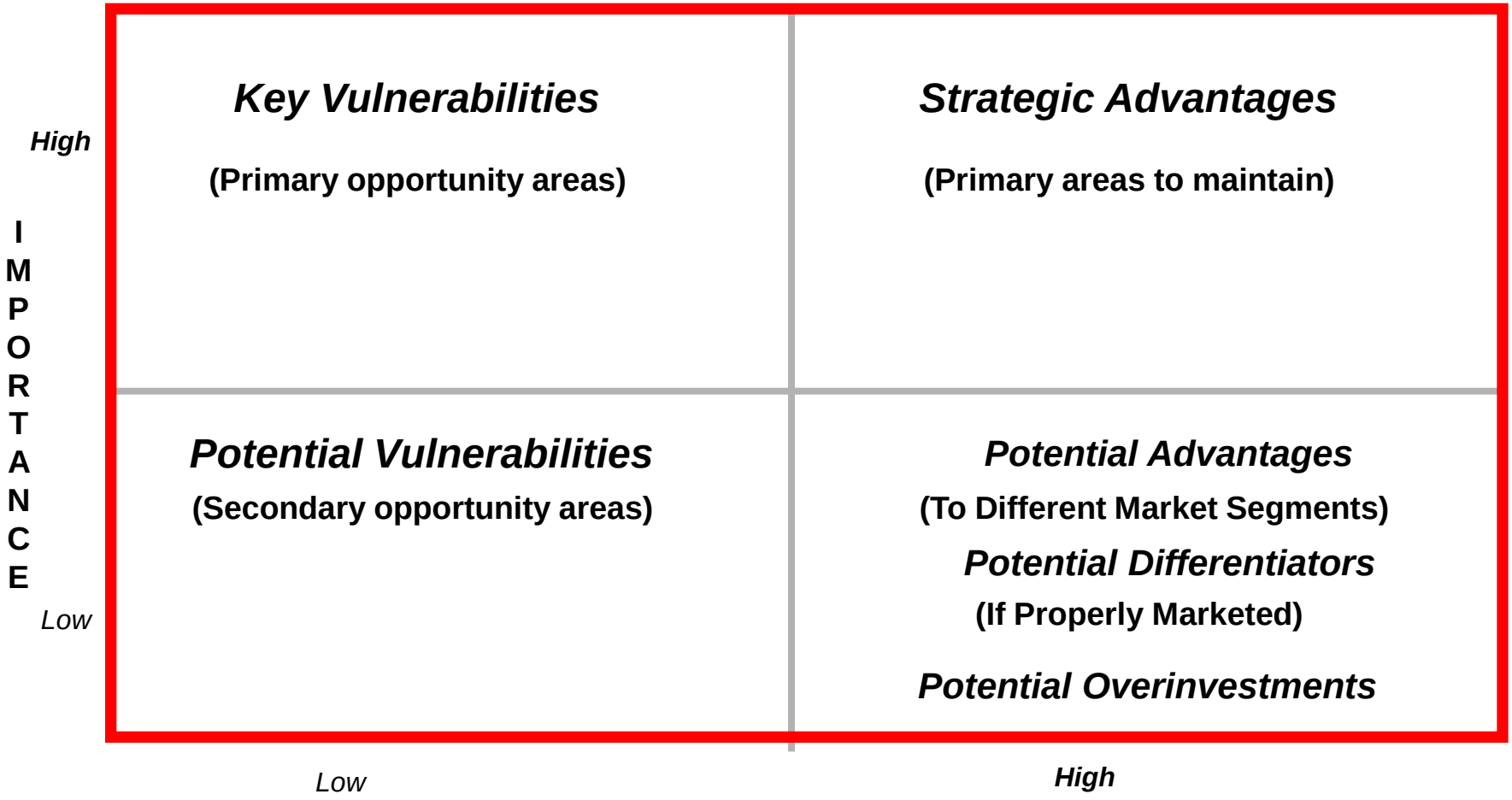
Derived versus Stated Importance

JOHNSTONE JOHNSTONE

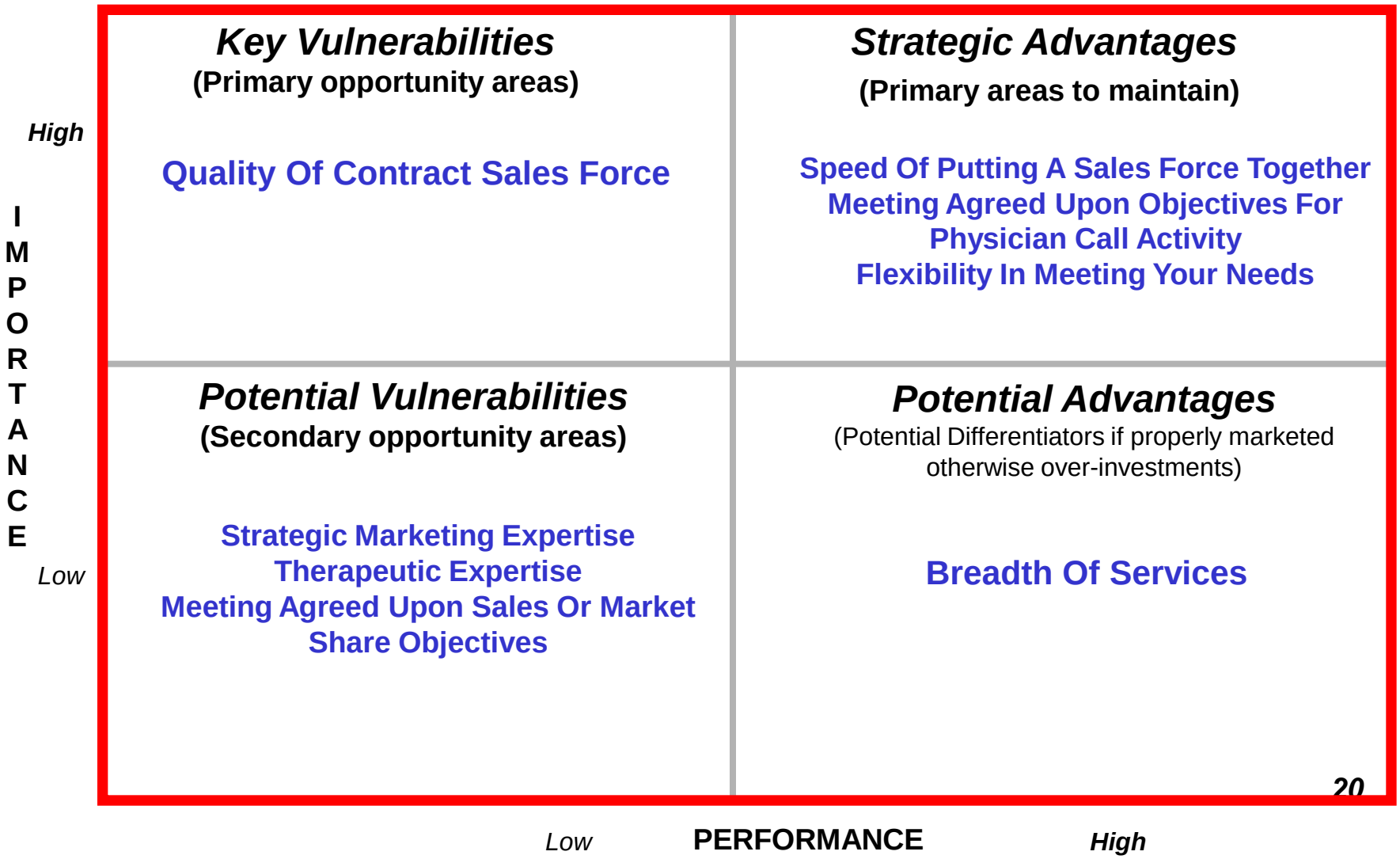


Graphical display of Stated vs. Derived Importance.

Quadrant Analysis



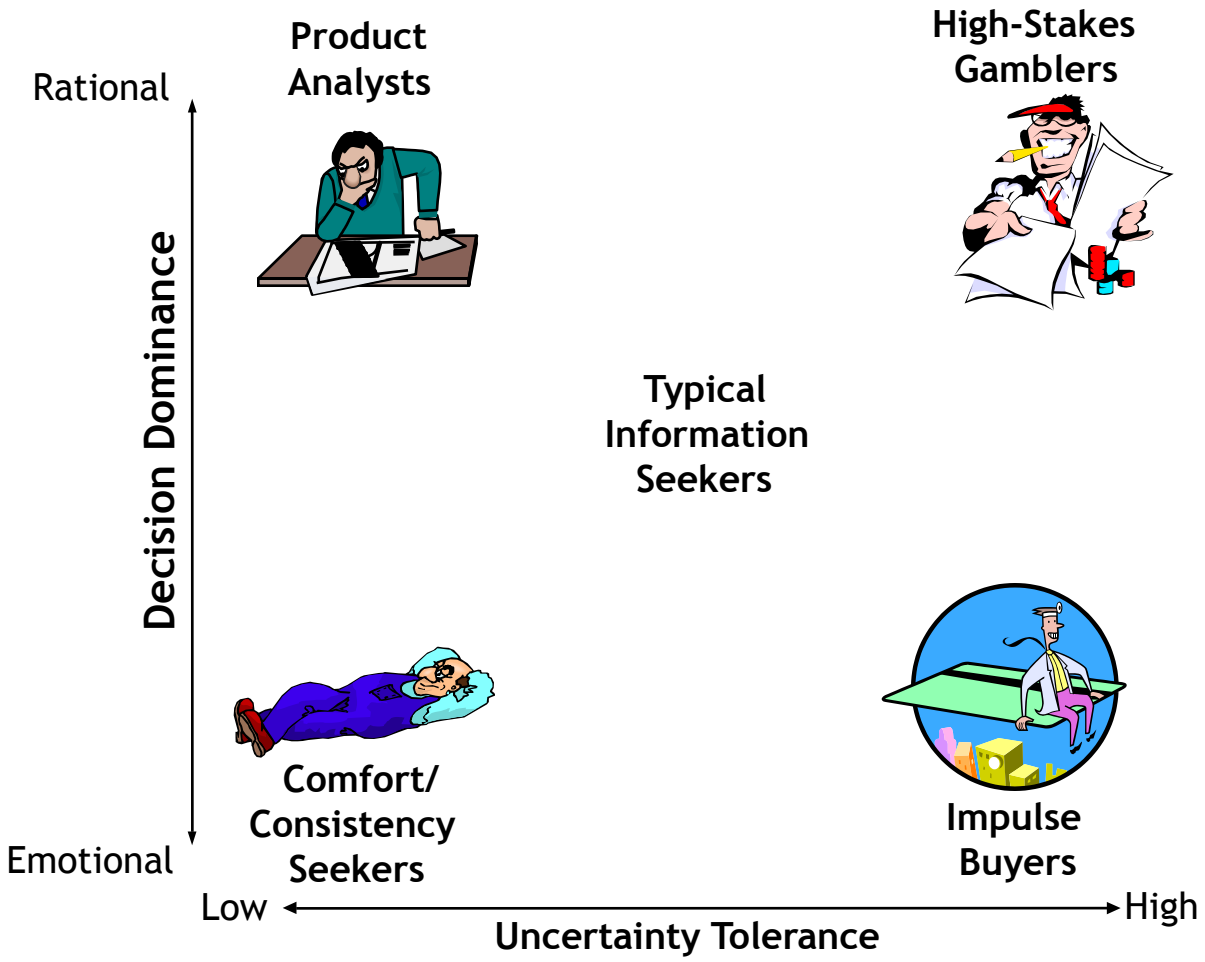
Client Company Quadrant Analysis



BUYER Segments

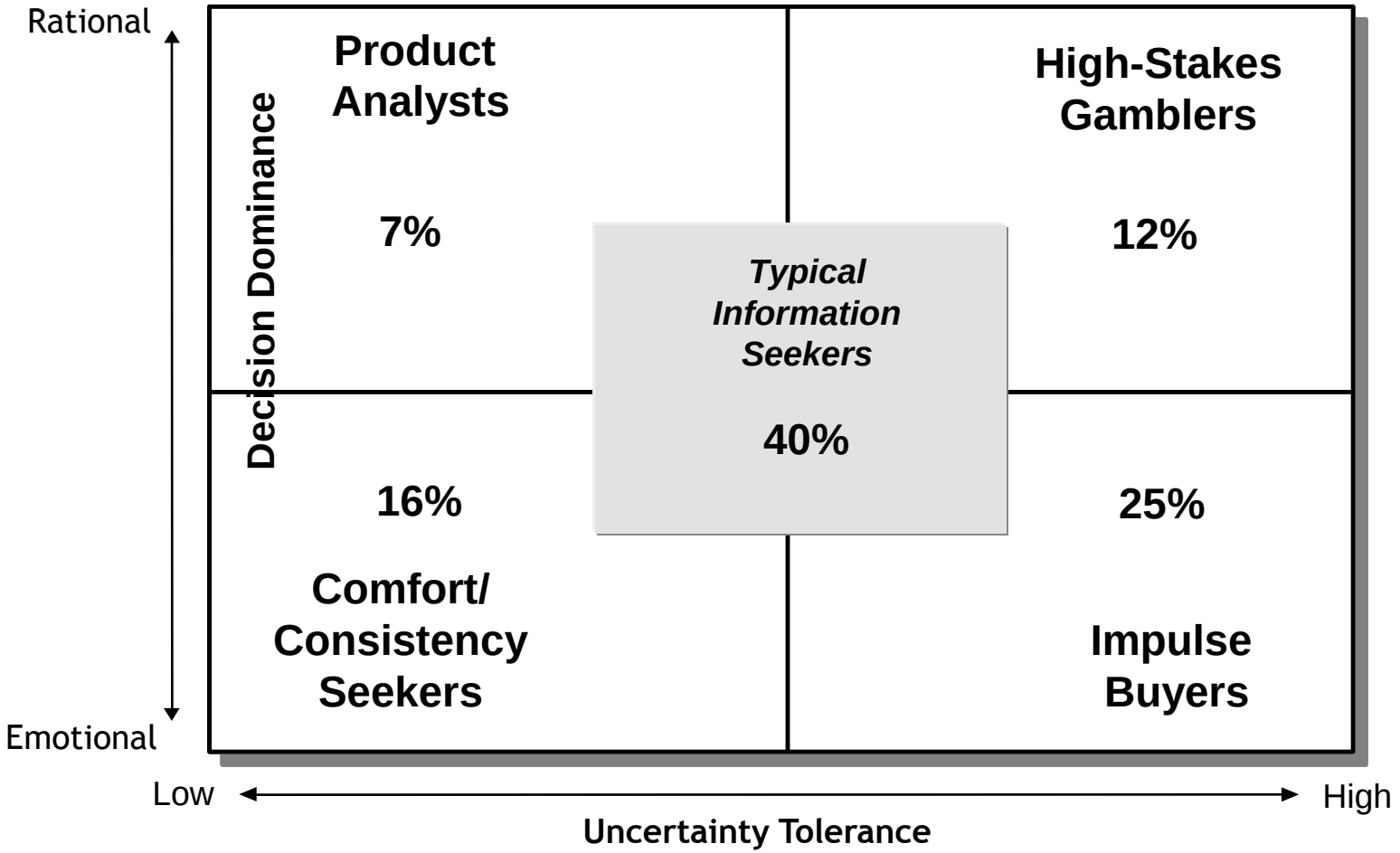
- BUYER Segments are a quick add-in when conducting consumer testing for products such as:
  - Consumer Goods
  - Food & Beverage
  - Electronics & Computers
- Multivariate Solutions could suggest these four questions as an addition to any survey involving these categories.

BUYER Overview



Survey Structure

- ***On a scale of 1-to-5, how much do you agree with the following statements?***
  - ***I may not know a lot about a product before I buy it, but that is okay (reversed scaled).***
  - ***It would really bother me if I didn't understand some information about a product.***
  - ***Price always determines what Brand I buy.***
  - ***I don't have a problem changing what I buy .***

BUYER Results

•The BUYER Matrix shows the proportion of the consumer base falling into respective areas.