WILLIAMS COLLEGE of BUSINESS

XAVIER UNIVERSITY

CENTER *for* CORPORATE SUCCESS

Making Better Project Portfolio Decisions

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Background

How Projects have been selected in the past

- Budget "Cut-Line" Approach
- Single Financial Criteria
  - Example: Net Present Value (NPV)
- Distributed Funding for all projects
  - Example: All projects funded at 70% of budget
- Executive's Pet Projects
- Project Owner's Political Clout and Positioning

Background

How Projects have been selected in the past

A Better Approach

A systematic application of proven methods to help managers make better portfolio decisions

Organizations using this approach:

Texas Instruments

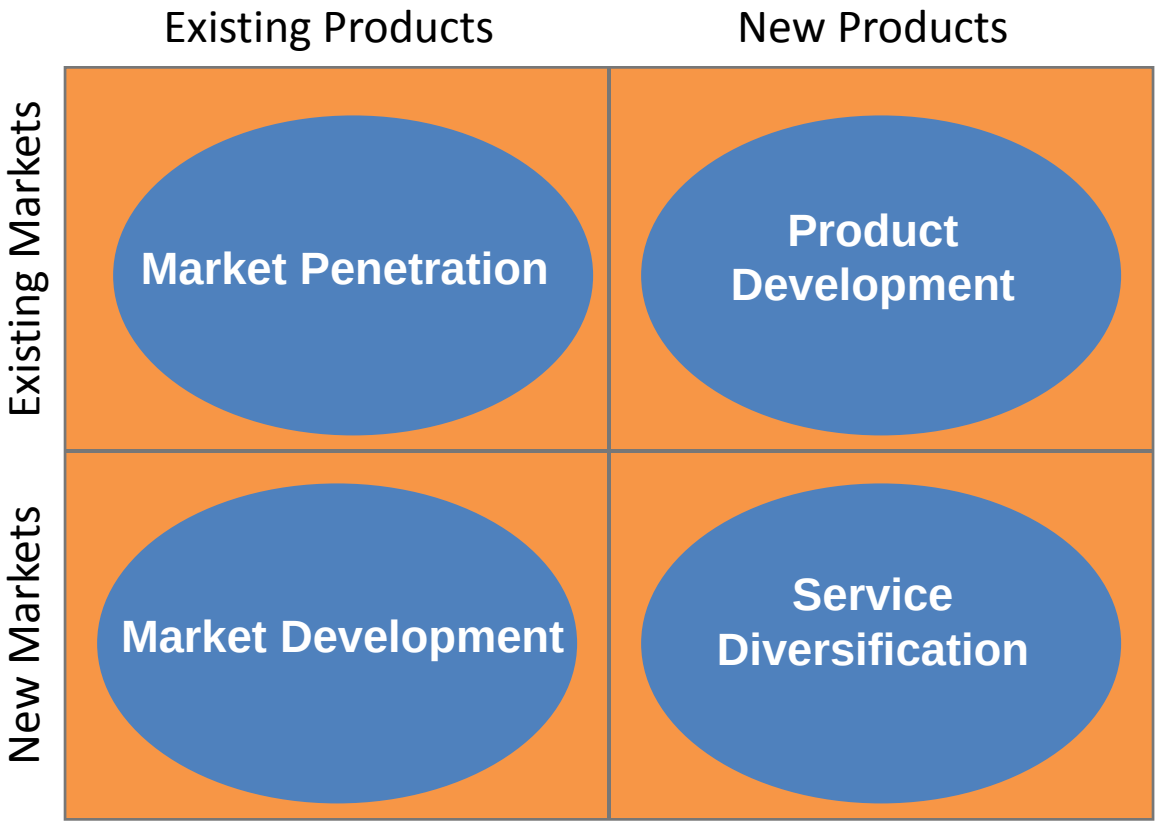
NCR

NREL

How Applied:

- Project Selection
- Strategy Selection
- New Products Decisions
- New Market Decisions
- Resource Reductions
- Financial Investments
- Vendor Selections
- New Technologies

Achieving a Balanced Portfolio

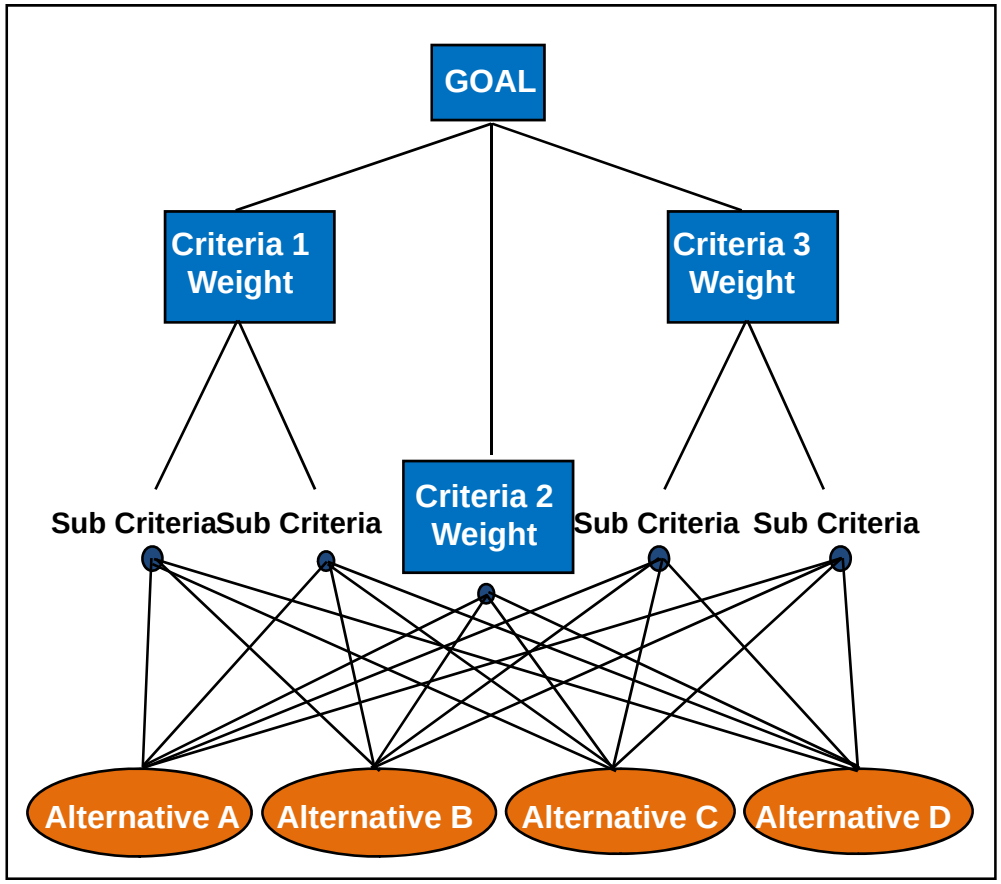


Source: Ansoff Growth Matrix

The Modeling Technique

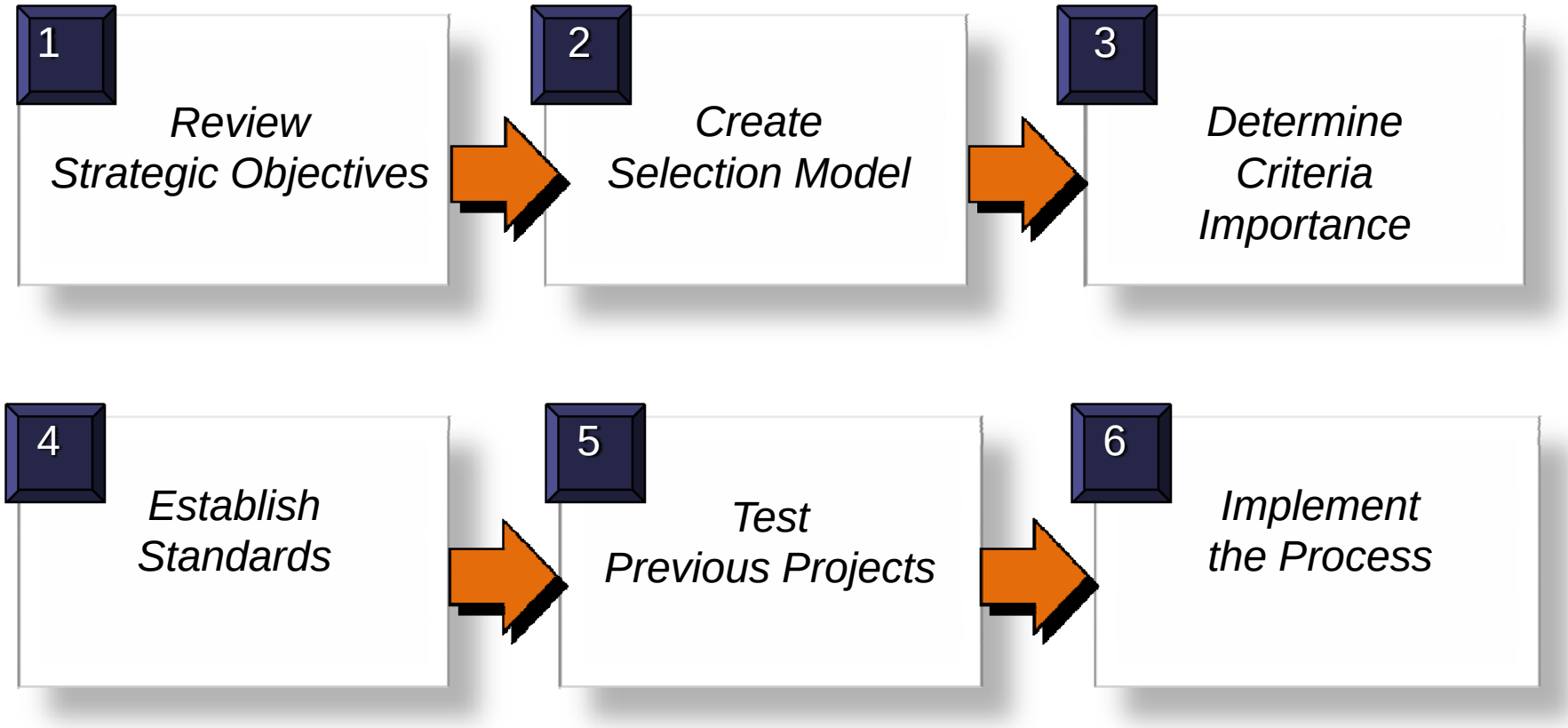
- The decision modeling technique used for determining criteria importance is the Analytical Hierarchy Process (AHP)
- AHP was developed by Dr. Thomas L. Saaty at the Wharton School of Business
  - Provides framework which allows better information organization
  - Helps define what type of information is needed for the decision and what is irrelevant or unimportant
  - Both qualitative and quantitative criteria can be compared using informed judgments to derive weights and priorities
- AHP can be recreated within a spreadsheet or is available through commercial software packages

How it Works



- Break large problems into small, understandable parts
- Look at elements of a problem in isolation with respect to a single criterion
- Weights derived from pairwise comparisons
- Decision alternatives valued by pairwise comparisons

The Process



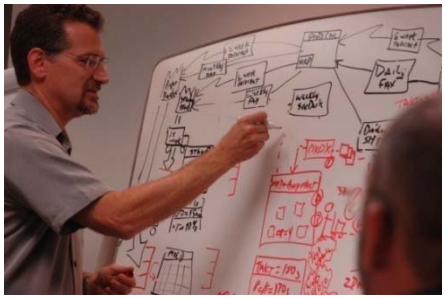
1 Review Strategic Objectives

- Review existing information
  - Corporate Strategic Plan
  - Corporate Goals and Objectives
- Identify the critical success factors for your company
- Define/Review Organizational Goals
  - Business Objectives and Tactics

2

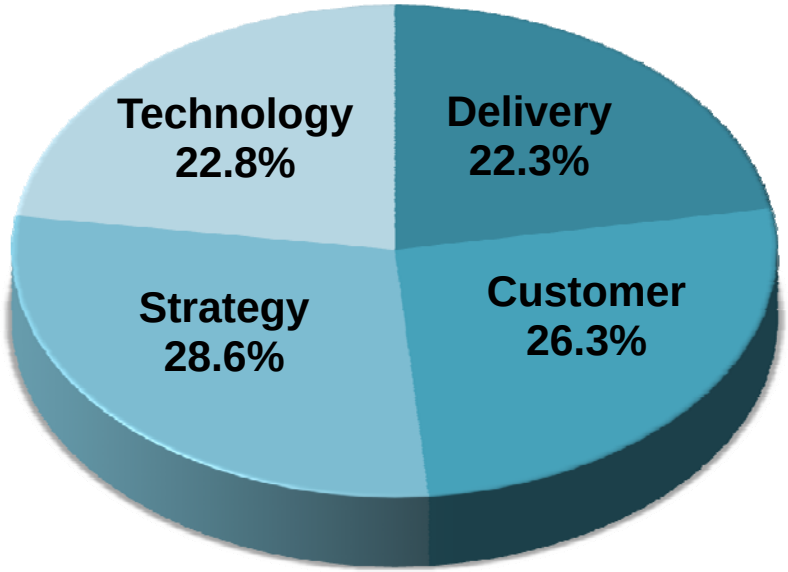
Create Selection Model

- Establish a Core Team of Stakeholders to Participate
  - Create Workshop for Brainstorming, Dialogue, and Decision-Making
  - 8 - 12 participants recommended
- Discuss additional criteria or "breakthrough ideas" to consider in addition to corporate and organizational goals and objectives
- Organize strategic, organizational, and other ideas by group or category
  - Remove duplicate or redundant criteria
  - Closely review all criteria for inclusion in model
  - 12 - 15 maximum criteria recommended



3 Determine Criteria Importance

- Work closely with the key decision-makers to assign relative importance to each criterion
- Use pairwise comparisons to focus on two criteria in isolation
- Start with major criteria and work down through sub-criteria
- Total score for the model is one, with values distributed across all criteria



4 Establish Standards

- Create standards by which to measure the ability of each Project to meet the objectives of the model
- Clearly define standards in terms of intensities
- Standards allow all Projects to be measured against the same baseline
- Standard weightings can be measured using the same technique of pairwise comparisons

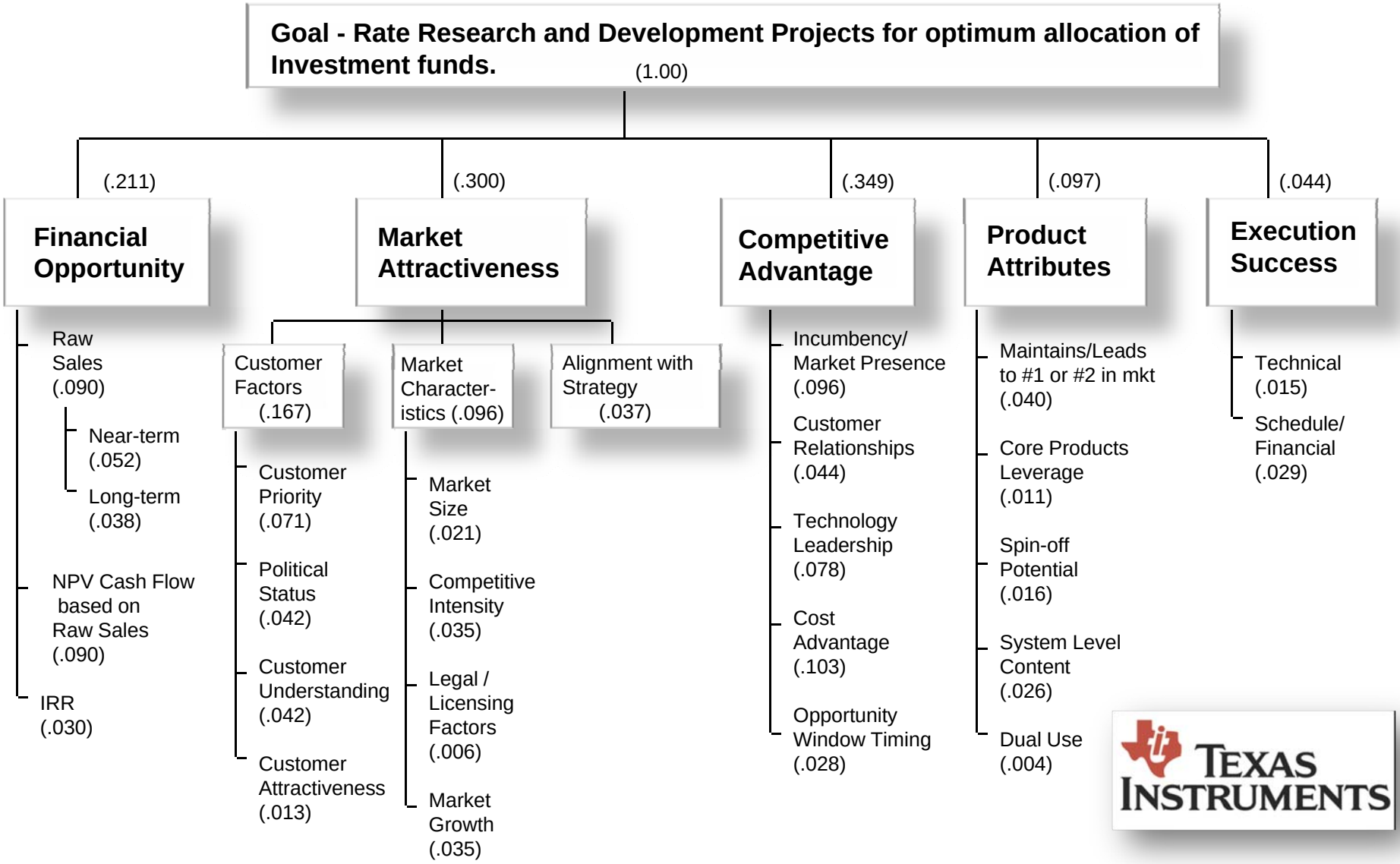
Test Previous Projects

- Test model against Projects that were evaluated the past year
- Each Project is evaluated independently
- Each Project will score between 0 and 1, with Projects more closely aligned with the goals and objectives of the model scoring higher
- The testing process allows the decision team to view, discuss, and/or refine the project selection model prior to full-scale implementation

6 Implement This Process

- Allow project sponsors and project managers to evaluate their projects against the model
- Have each evaluator provide business justification and supporting documentation
- Institute peer reviews to monitor and verify judgments
- Projects with a high Benefit/Cost ratio will be recommended
- Once all projects are evaluated, allow the project sponsors to discuss overall rating and make any final adjustments

Research & Development Projects

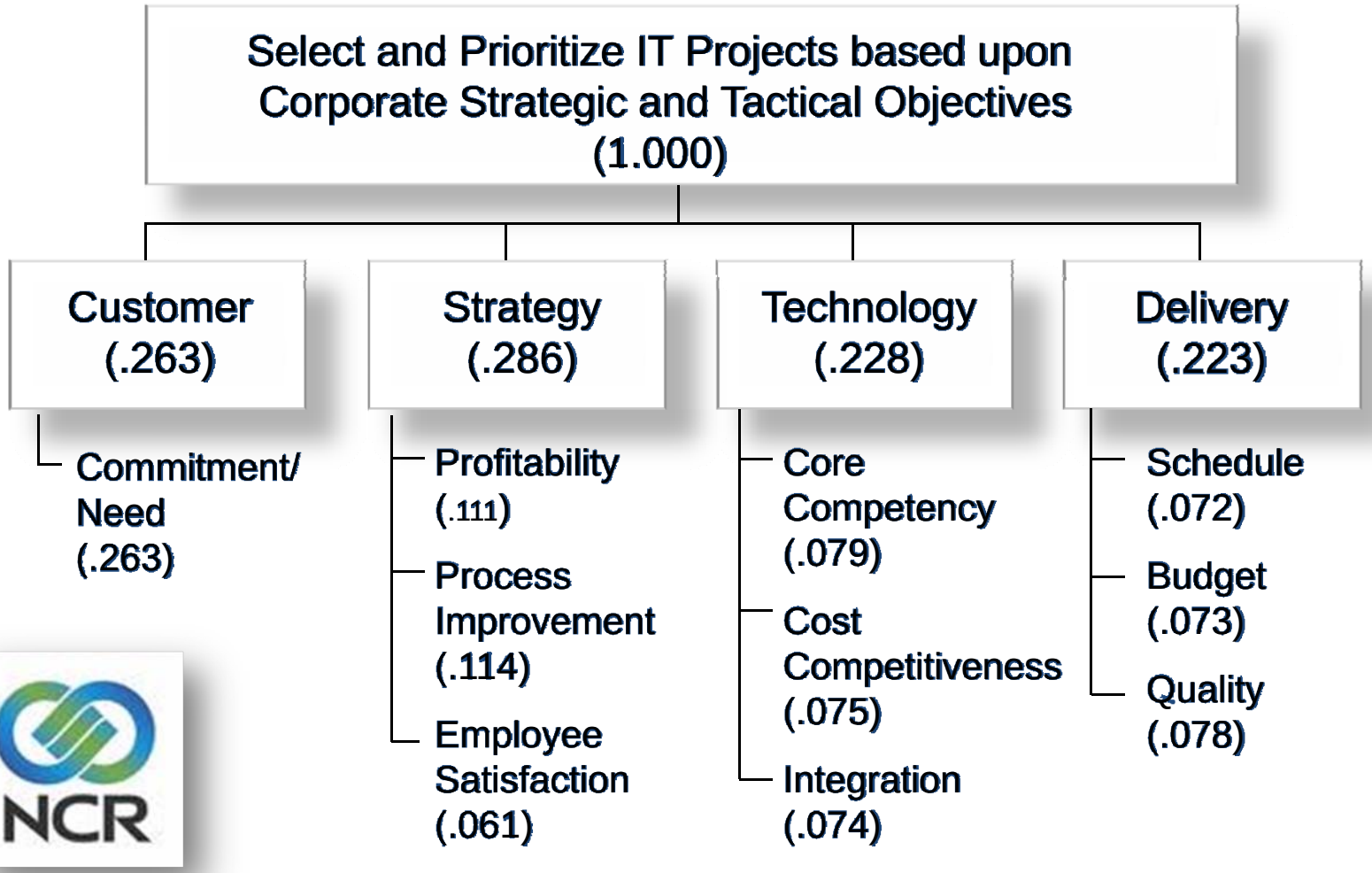


New Product Development Projects

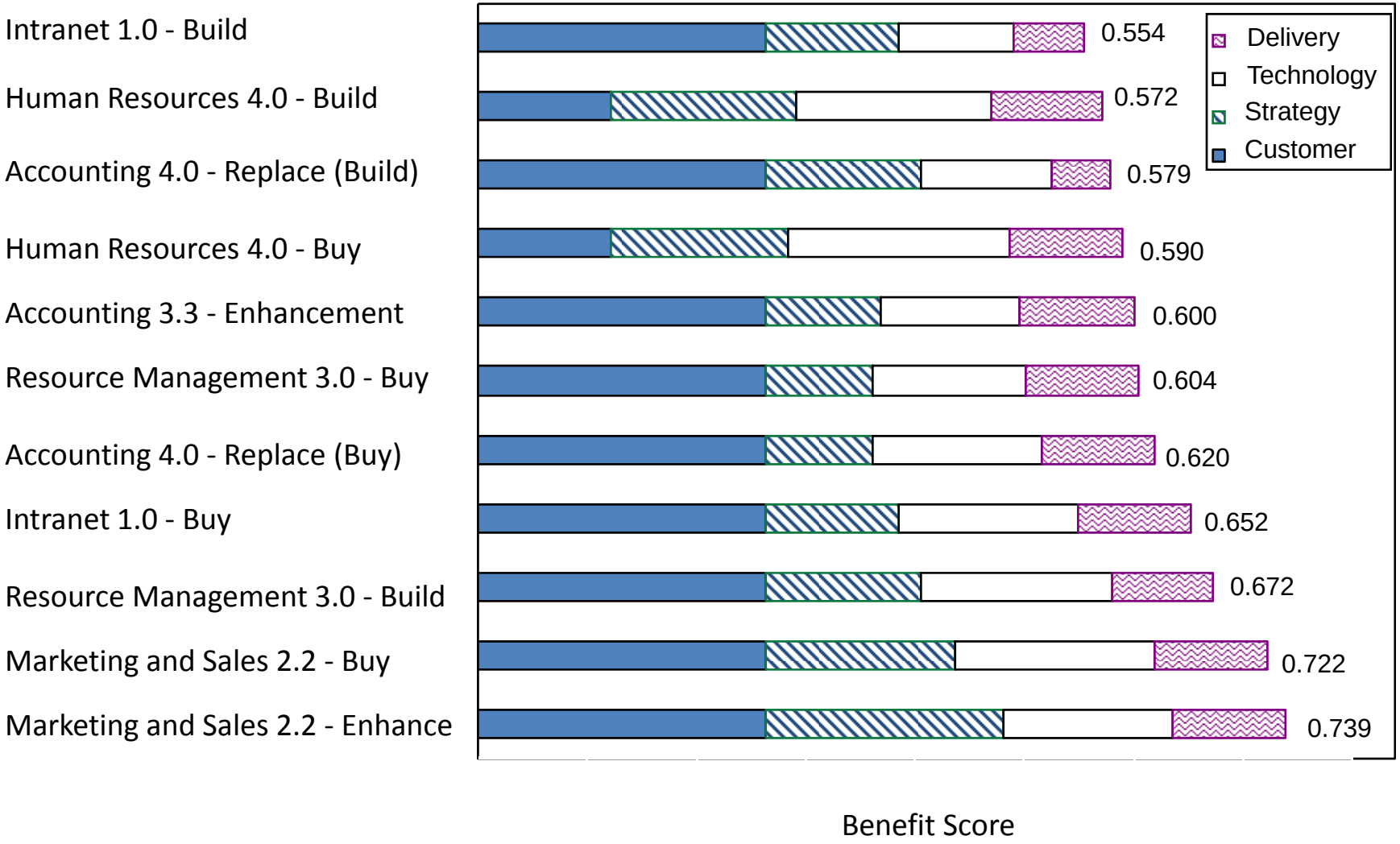
Goal - Rate and Assign a Figure of Merit for New Product Development Projects (1.00)

- **Competitive Advantage (.063)**
  - Technical Capabilities/ Leadership (.040)
  - Cost Competitive (.007)
  - Core Competency (.016)
    - Partnership (.0053)
    - Systems Analysis (.0053)
    - Program Management (.0053)
- **Competitive Intensity (.038)**
- **Customer (.304)**
  - Customer Priority (.195)
  - Understand/ Anticipate Customer Needs (.089)
  - Customer Attractiveness (.020)
- **Strategic Goals (.109)**
  - Professional Satisfaction (.068)
  - Diversifi-cation (.026)
  - Growth (.015)
- **Influence Factors (.305)**
  - Visibility (.024)
  - Sponsorship (.133)
  - Stakeholder Priority (.148)
- **Execution Success (.181)**
  - Schedule (.045)
  - Cost (.028)
  - Performance (.108)

Information Technology Projects



Project Benefit Scores



Project Selection Results

IT Project Name	Dependency	Score	Cost ($000)	* Benefit/Cost
Marketing and Sales 2.2 - Enhancement	1	0.739	400	18.48
Intranet 1.0 - Buy	2	0.652	450	14.49
Marketing and Sales 2.2 - Buy Module	1	0.722	600	12.03
Resource Management 3.0 - Build	3	0.672	600	11.20
Resource Management 3.0 - Buy	3	0.604	650	9.29
Intranet 1.0 - Build	2	0.554	600	9.23
Human Resources 4.0 - Buy	4	0.590	775	7.61
Accounting 3.3 - Enhancement	5	0.600	800	7.50
Human Resources 4.0 - Build	4	0.572	900	6.36
Accounting 4.0 - Replace (Buy)	5	0.620	1,450	4.28
Accounting 4.0 - Replace (Build)	5	0.579	1,400	4.14

Selected Projects are shaded; Dependency shows correspondence to other project alternatives

** Benefit/Cost Ratio results multiplied by 10,000; Overall Budget for this example is $3.5 Million*

Benefits

- Systematic, rational, proven approach
- Incorporates Corporate Strategic and Tactical Objectives
- Considers many criteria that traditionally may be overlooked
- Establishes on-going process for introduction of new projects or re-evaluating existing projects
- Creates up-front agreement and organizational buy-in
- Establishes business case for your investment and allows for a complete audit trail of the decision process

Conclusion

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