

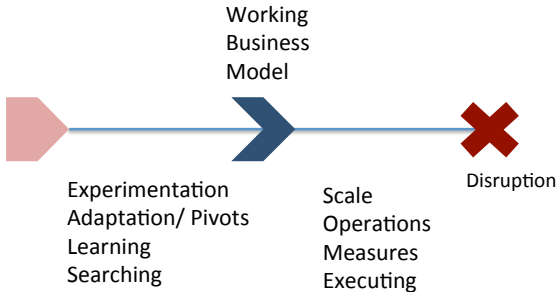



## Innovation & Leadership

Ikhtlaq Sidhu,  
Chief Scientist & Founder, Center for Entrepreneurship & Technology  
Department of Industrial Engineering & Operations Research  
IEOR Emerging Area Professor Award



## Innovation Journeys



Working  
Business  
Model

Experimentation  
Adaptation/ Pivots  
Learning  
Searching

Scale  
Operations  
Measures  
Executing

Disruption

**Berkeley**  
UNIVERSITY OF CALIFORNIA

[http://en.wikipedia.org/wiki/William\\_C.\\_Durant](http://en.wikipedia.org/wiki/William_C._Durant)Original story: Steve Blank


## Horizon Level Planning Portfolio

- Horizon Level Allocations
  - H1 Core Business
  - H2 Adjacencies
  - H3 New Categories


H1: Core: 60-70% (effectiveness/execution)	H2: Adjacencies 25-30% (learning)	H3: Moonshot 5-10% (learning)
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Roadmap Driven, Technology Development	Must learn, Unknown variables: typically market, technology	Moonshot Big payoff All unknown
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Question: Are leaders compensated for all levels?




## Building Blocks of Innovation Process



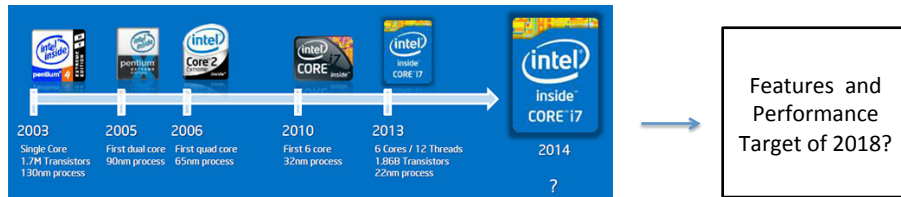
H3: Moonshot 5-10% (learning)	H2: Adjacencies 25-30% (learning)	H1: Core: 60-70% (effectiveness/execution)
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Skills:	Experimentation, Adaptation, Learning Customer + Technology	Scale, Operations , Measures, Accounting
Motivation:	Change the world	Don't deviate from a working process

Characteristics: Comfortable with unknowns      Likes plans, avoids unknowns



# H1: Roadmap-Driven Example: Processor Roadmap

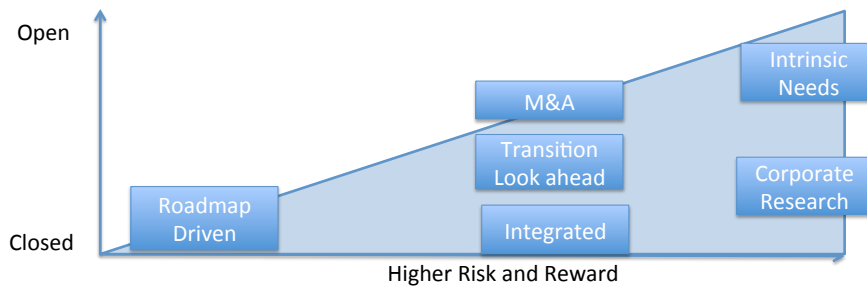


Note:  
Business Model is Known  
Customers are Known  
Technology is mostly known

- Process
- Requirements
- Advance problems
- Tools



## Observed Patterns:



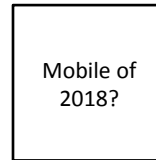
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Measures IP Assets  
Advanced Design  
Use in next product  
Cycling: by Business Unit

## H2: What if the next market transition is not on directly on the roadmap?



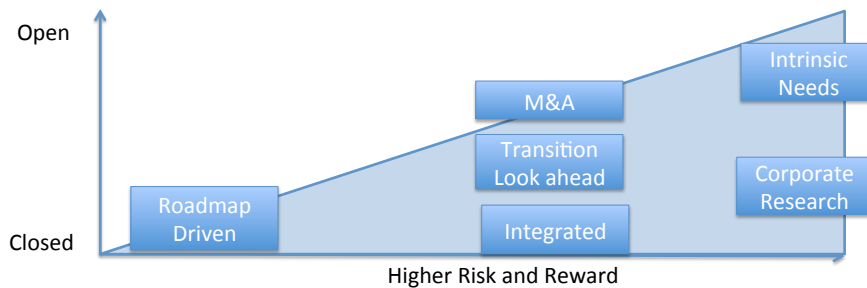
Desktop



Mobile of 2018?



### Observed Patterns:



H1: Core: 60-70% (effectiveness/execution)	H2: Adjacencies 25-30% (learning)	H3: Moonshot 5-10% (learning)
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Measures  
 IP Assets  
 Advanced Design  
 Learn next product  
 Focus by Business Unit

Ease of entry /new markets  
 External influence  
 Customer story  
 Some projects must fail

### H3: A Focus on 10X, New Categories, New Needs

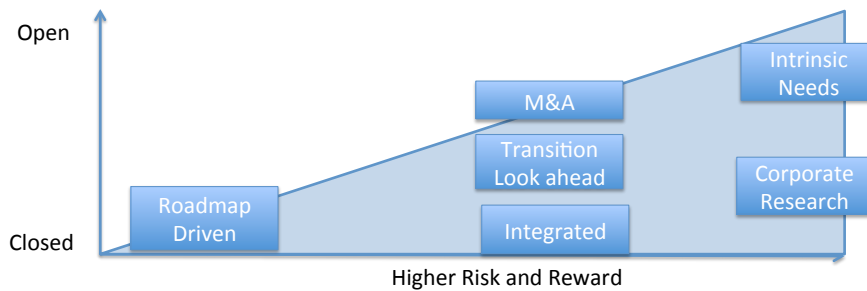


Mainstream Google Product Development

Google X



### Observed Patterns:

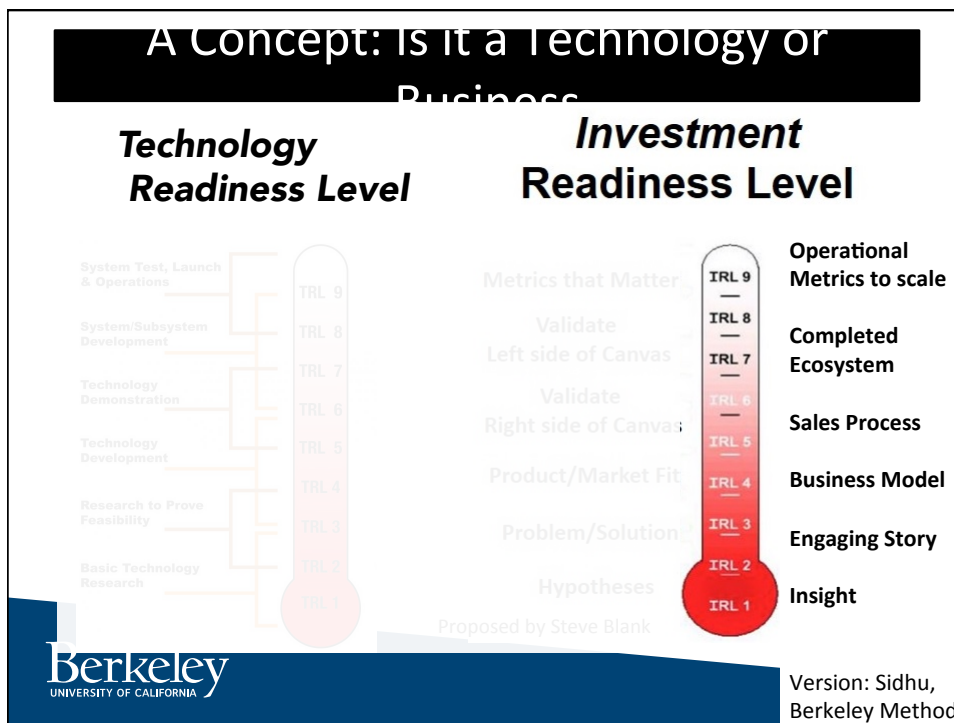
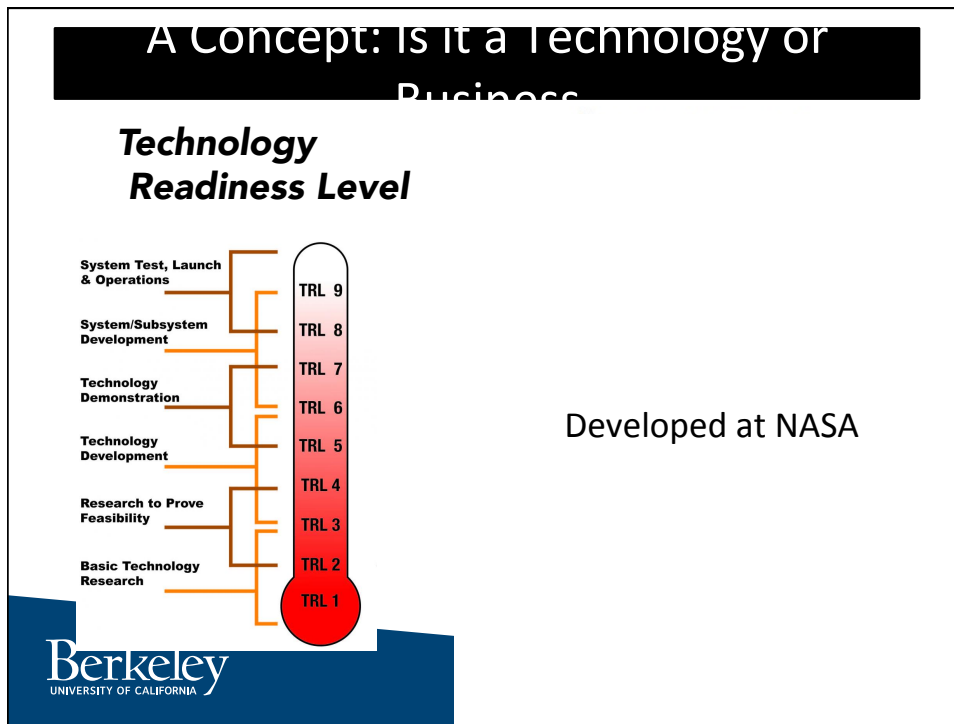


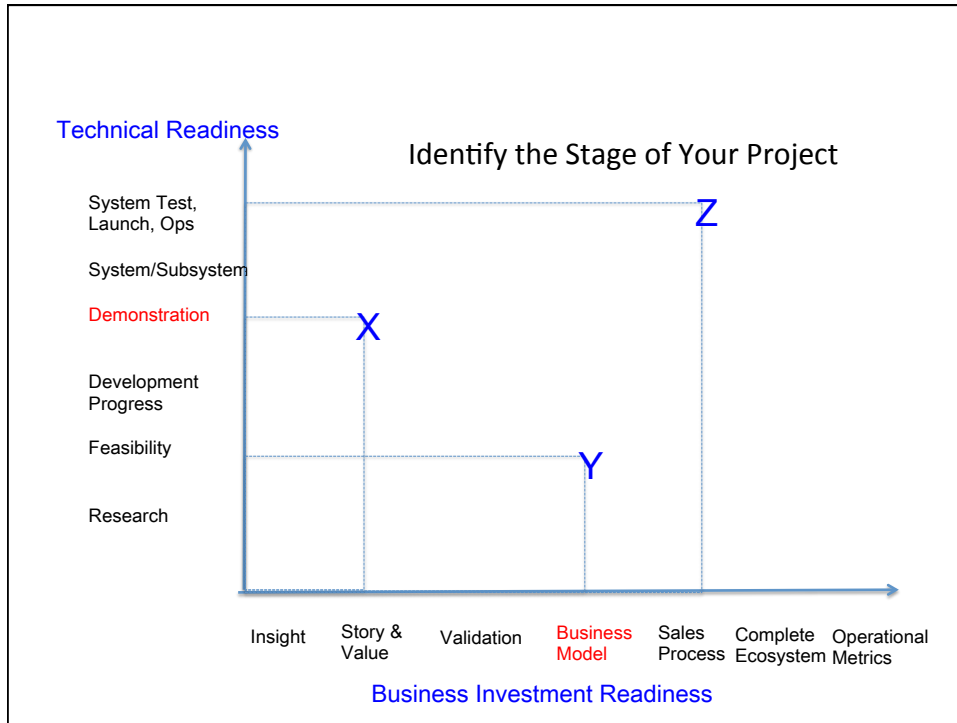
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Measures  
 IP Assets  
 Advanced Design  
 Life in next product  
 by Business Unit

Ease of entry /new markets  
 External influence  
 Customer story  
 Some projects must fail

10X Gain  
 External Awareness  
 New categories  
 Corp Funding

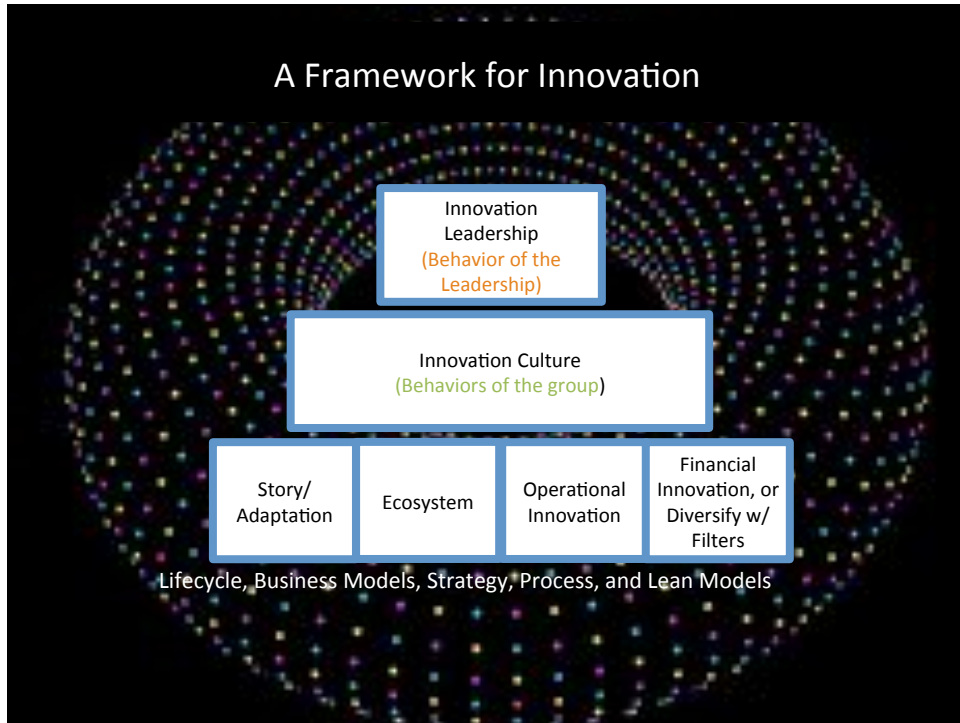




Innovation Leadership

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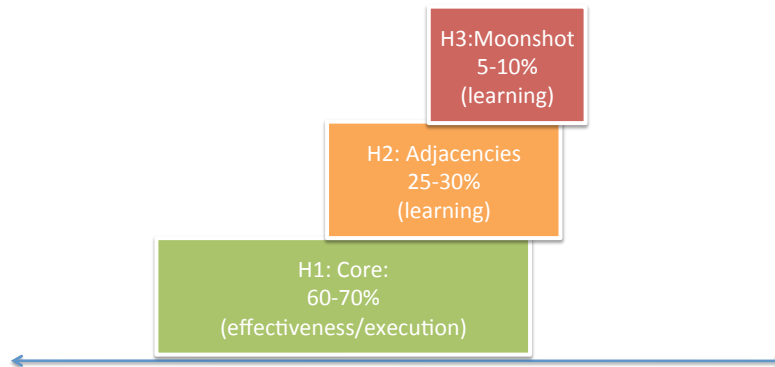
## Leadership in the Context of Innovation is Different

- Managing (at the edge of) Chaos
- Best Ideas are not from the leader
- Bottom up ideas meet top down objectives
- Transparency, Flatness, Data Driven
- Tolerance for diverse ideas
- Organization and people must learn and adapt.



Where is the balance: protect the brand and history vs invent the new story

### Organizational Profiles \* Hiring for Employees \* Selection of Leaders



#### **Operations Mindset:**

- Does what they are told/job
- Easy to manage
- Accepts that its not my business
- Needs upfront clarity on task
- Avoids Risk
- Accepts conventional wisdom

#### **Innovation Mindset:**

- Asks Why, Needs Context
- Hard to manage
- Easily board
- Questions Hierarchy/boundaries
- Minds everyone's business
- Accepts risk, OK with Ambiguity
- Eager to take on complexity

Reference: Nir Merry, Applied Materials

Organizational Profiles \* Hiring for Employees \* Selection of Leaders

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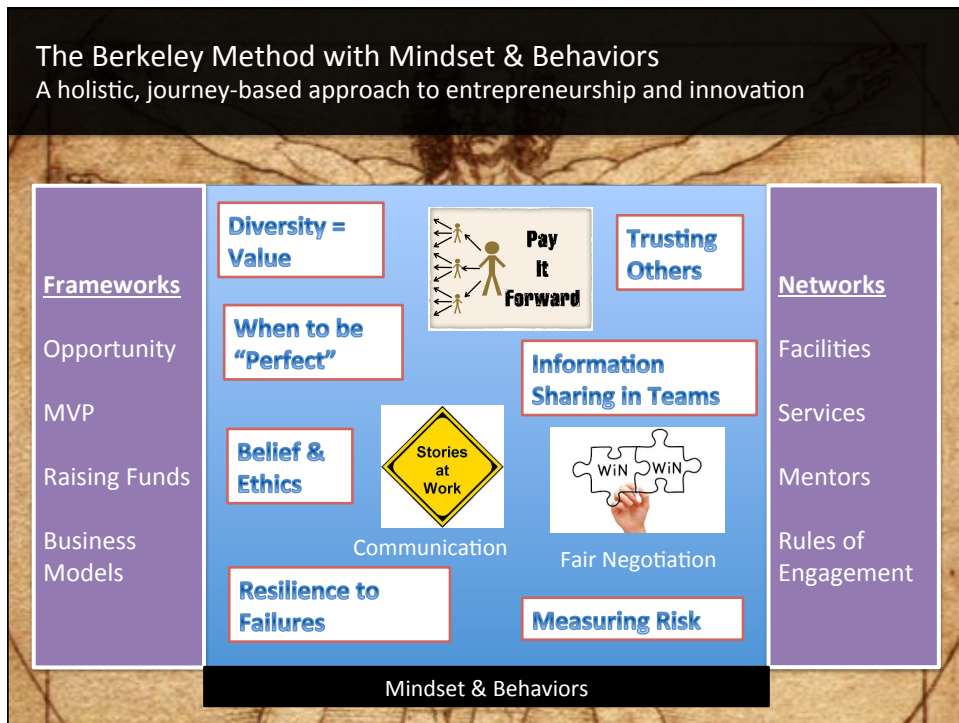
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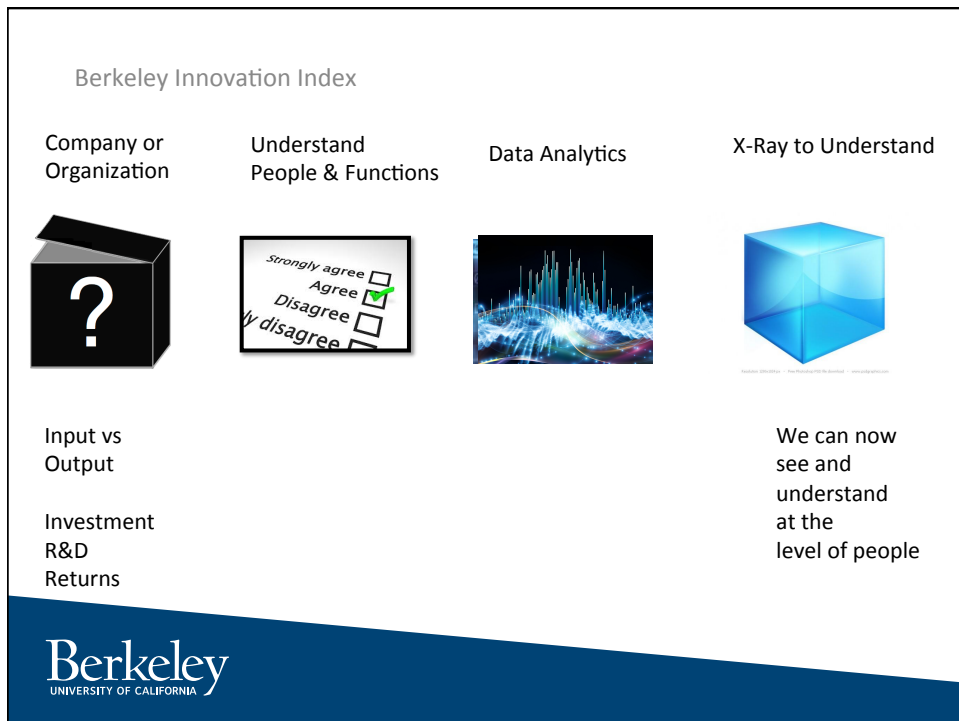
**Innovation: (Intrapreneur)**

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And how should a leader manage this group?

Reference: Nir Merry, Applied Materials





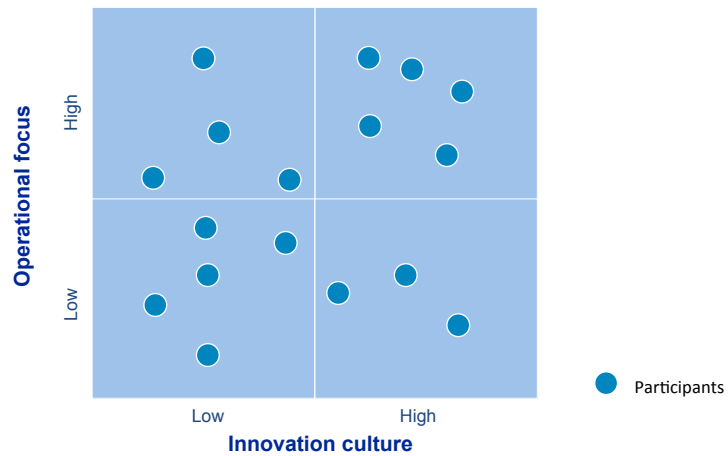
## FDC BII ASSESSMENT

### Context

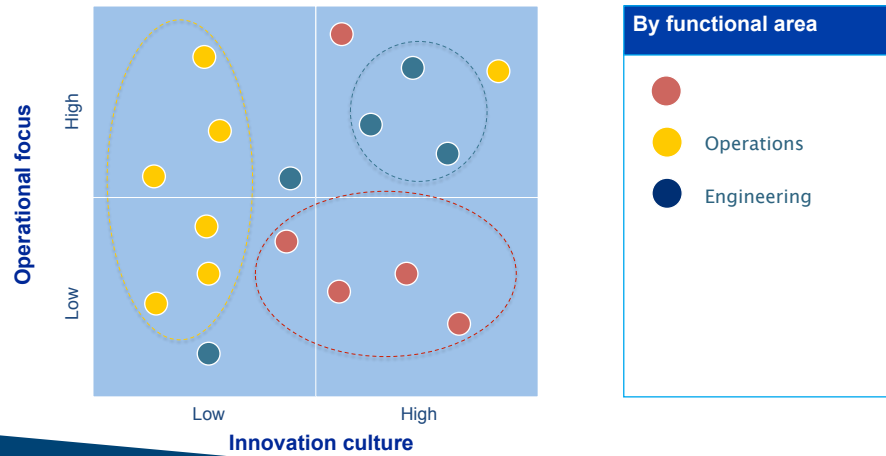
- Assessments taken:
  - Workgroup assessment
  
- Data overview -
  - 164 participants
  - 12 companies
  - 7 functional areas



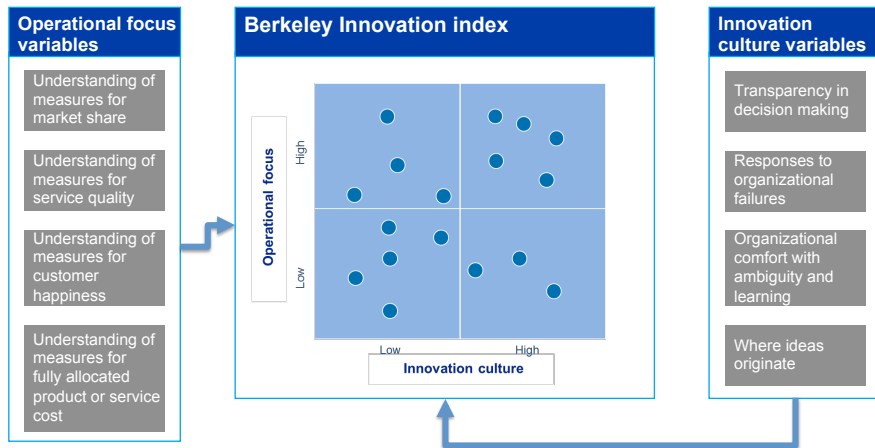
### Berkeley innovation index Operational focus vs. innovation culture



**Berkeley innovation index**  
**Operational focus vs. innovation culture by functional area**

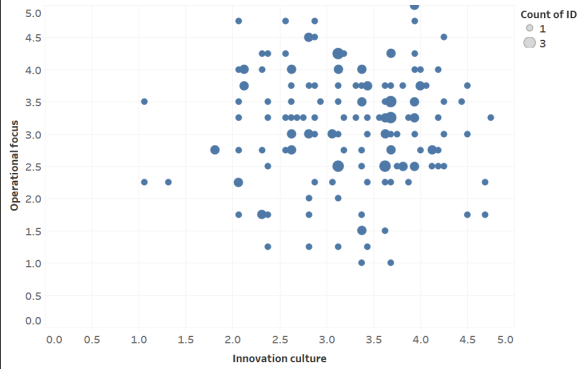


**Mechanism**



### OPERATIONAL FOCUS VS INNOVATION CULTURE

#### Workgroup assessment

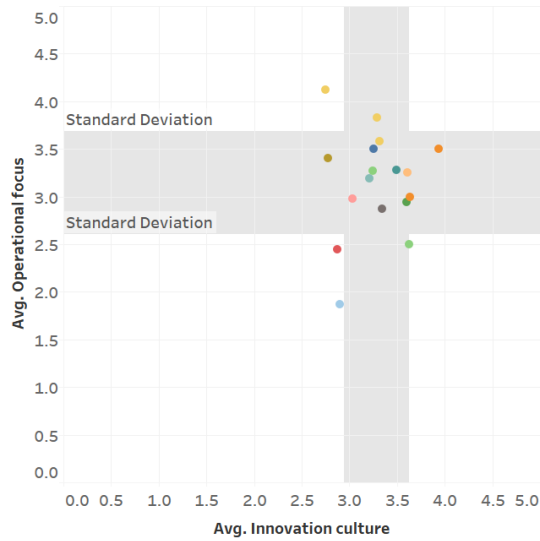


- High scores for Innovation Culture and Operational focus
- Higher spread on Operational Focus scores

● Participants



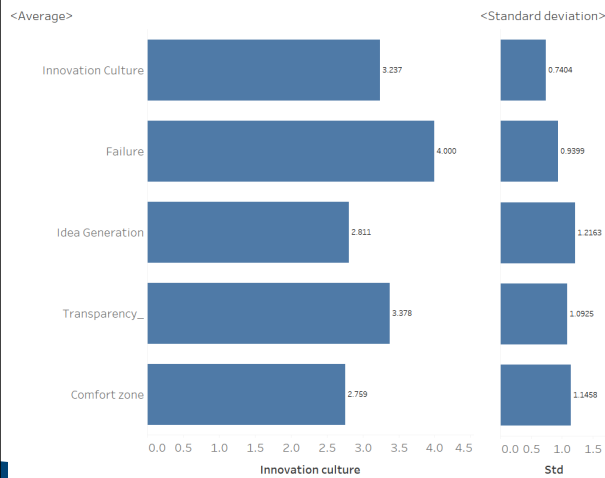
### OPERATIONAL FOCUS VS INNOVATION CULTURE



● Companies

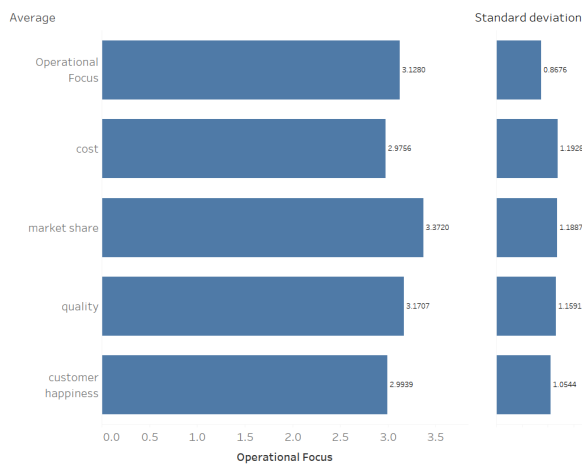


### INNOVATION CULTURE VARIABLES



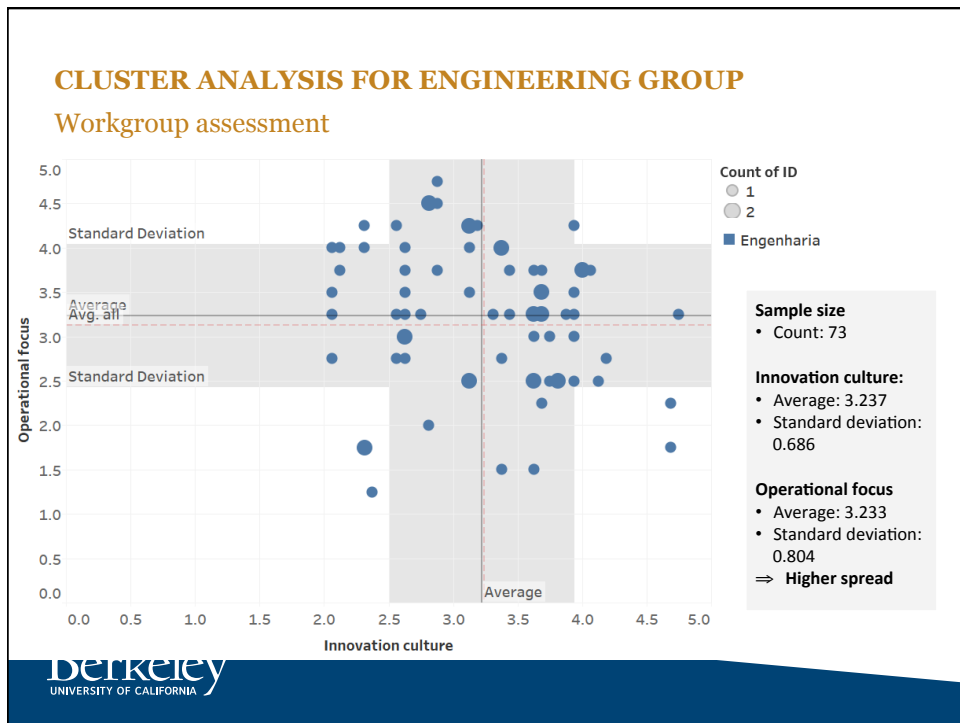
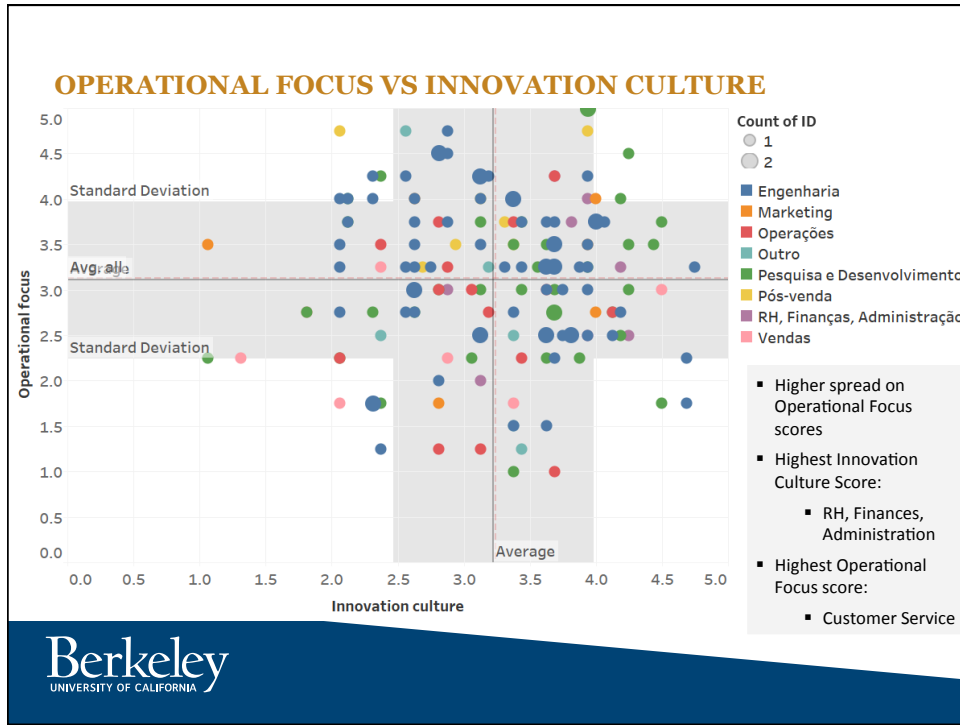
- Being comfortable with making decisions under uncertainties and generating ideas at all levels is the biggest challenge for the organization
- Most people feel comfortable with making failures in the organization

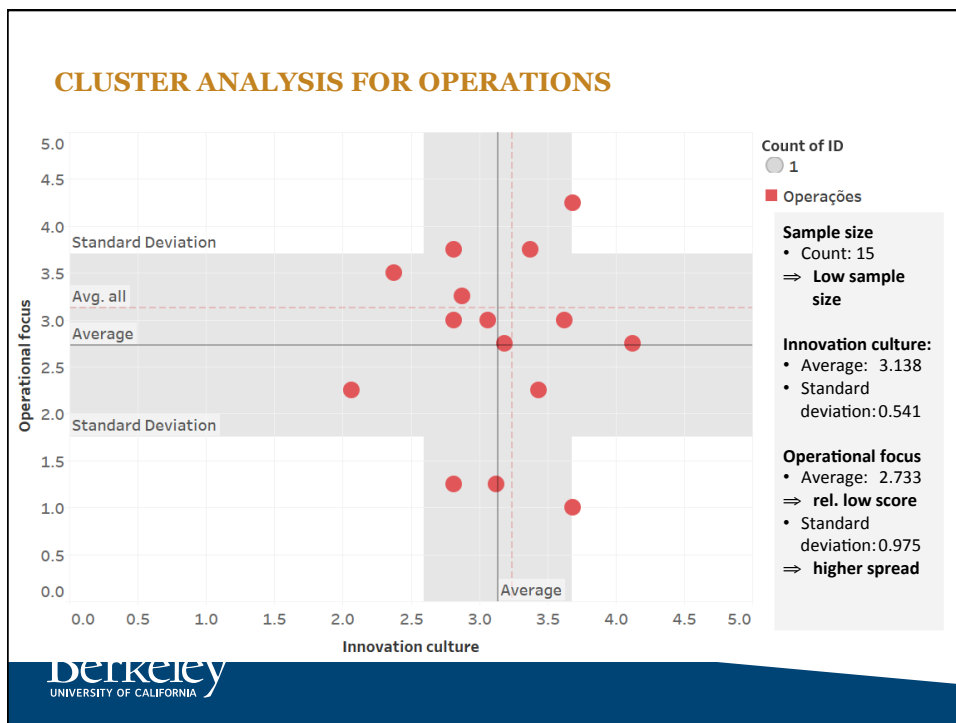
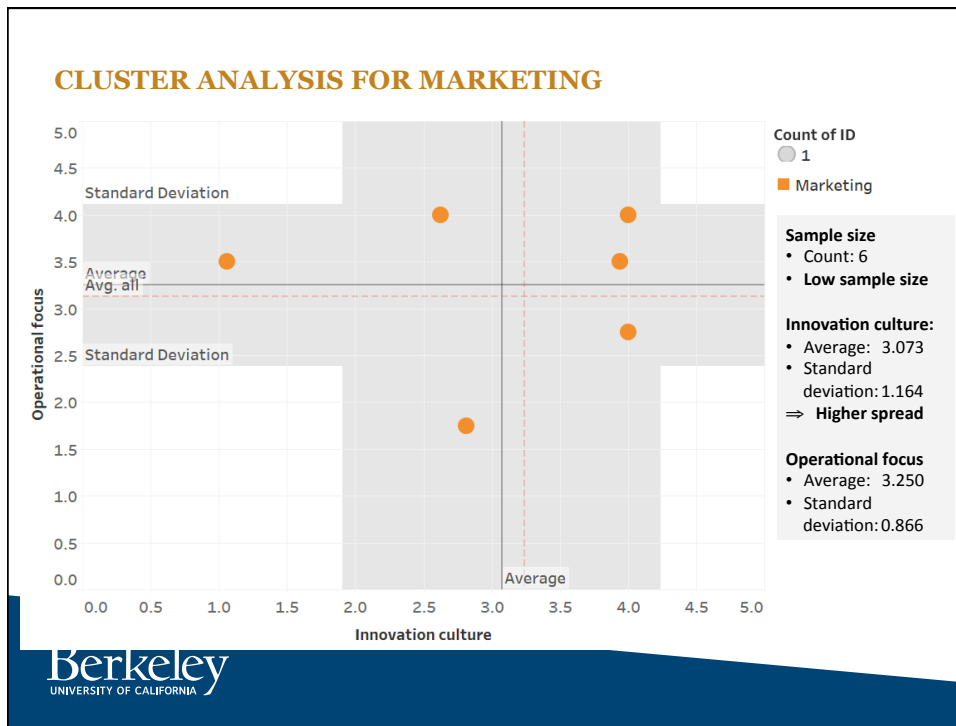
### OPERATIONAL FOCUS VARIABLES

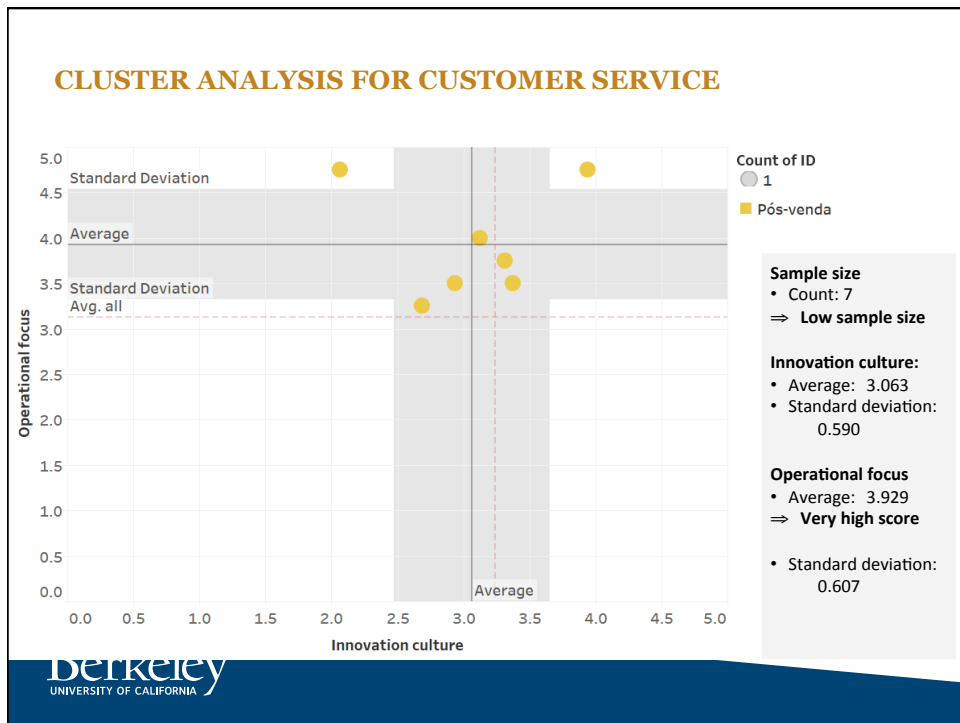
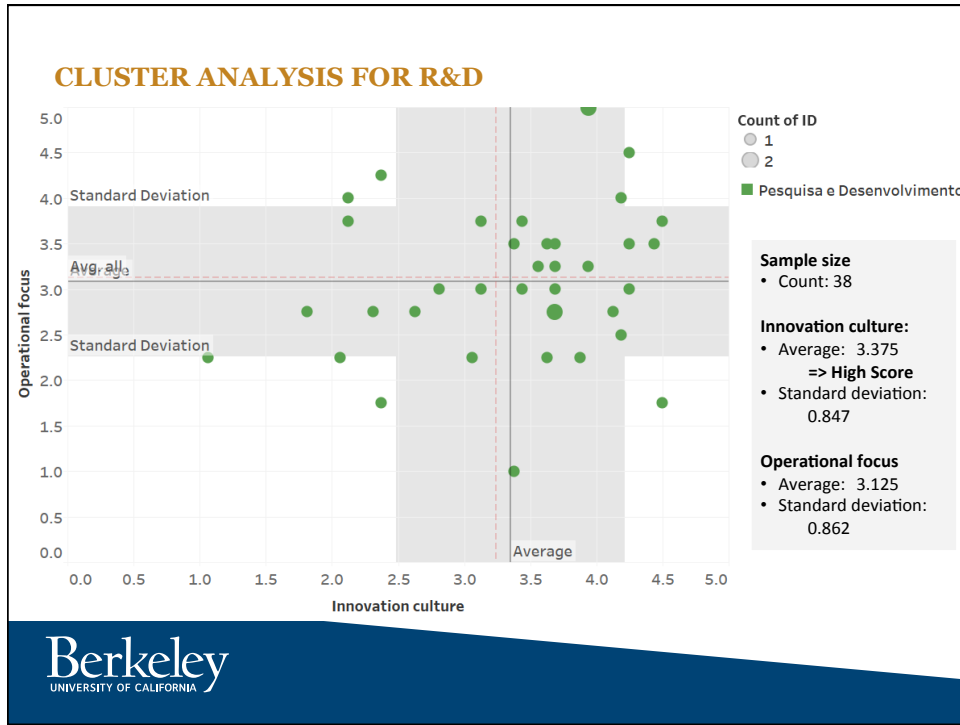


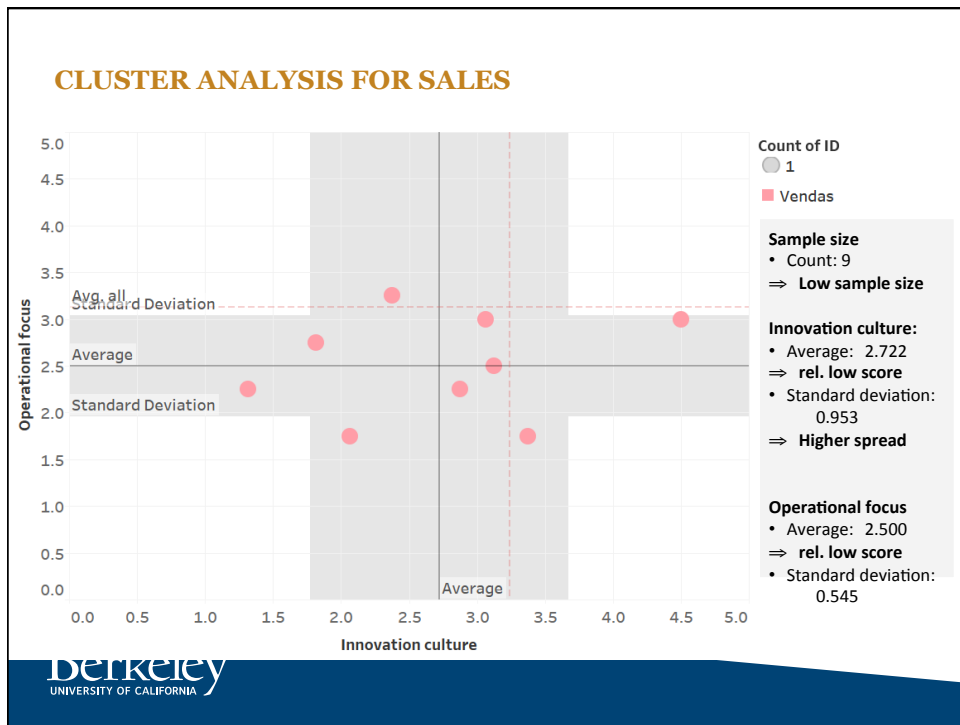
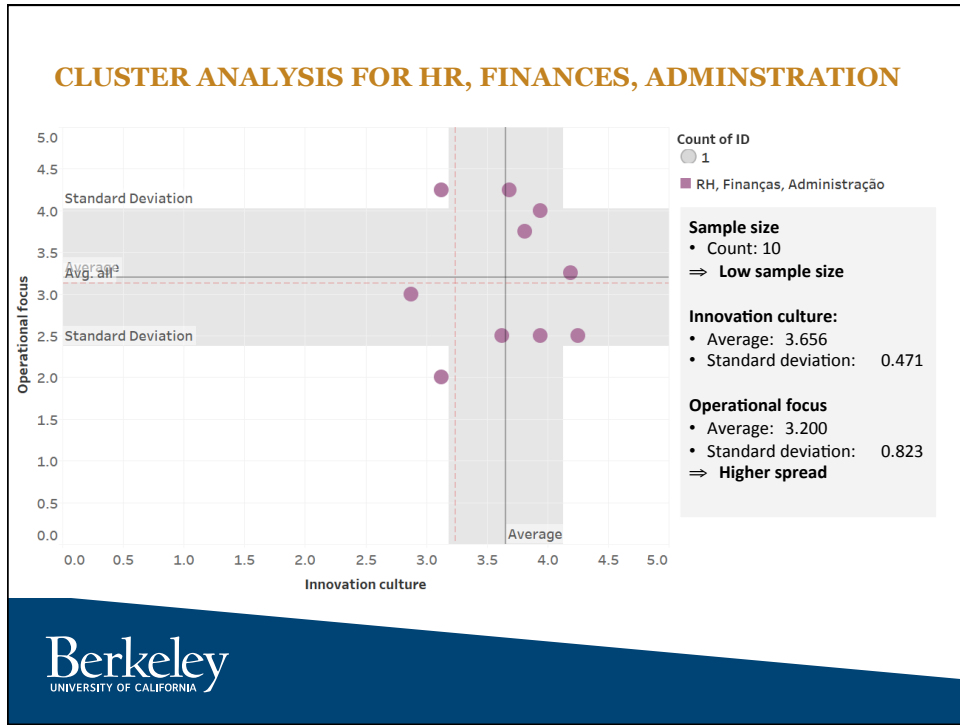
- Having a clear measure for customer happiness and the allocated product or services cost is the biggest challenge in the organization
- Most people in the organization know the market share of the product or services

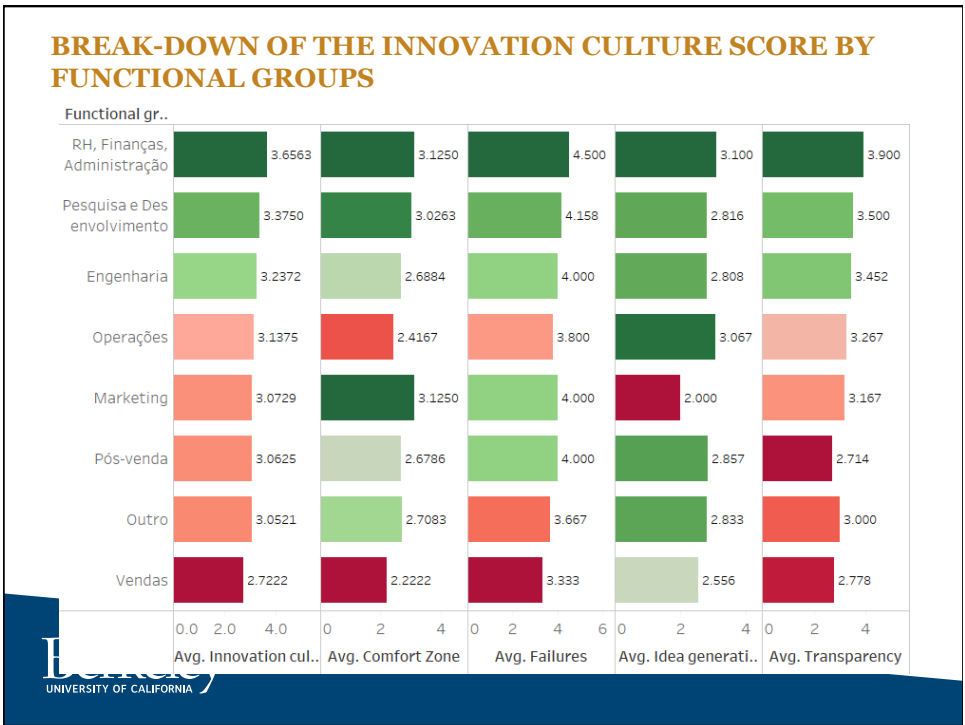
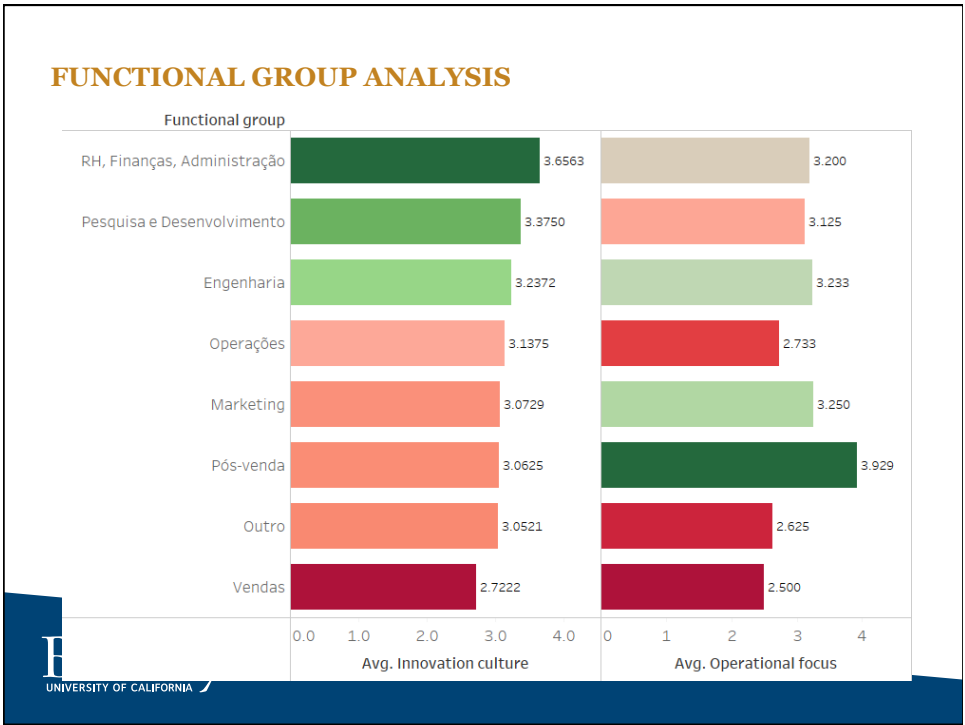




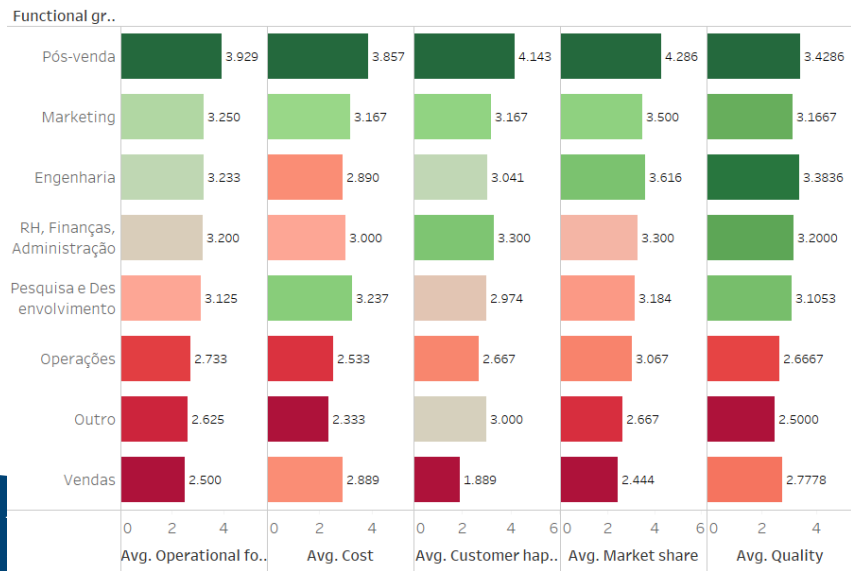




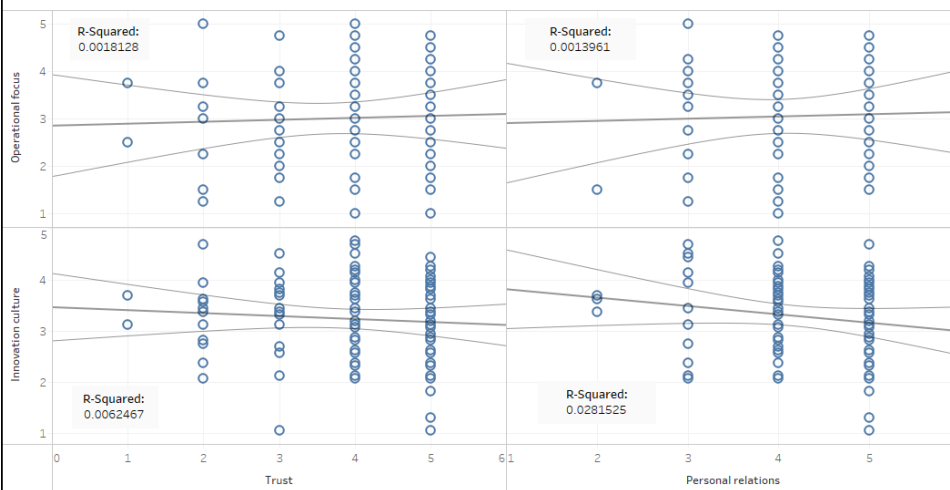




### BREAK-DOWN OF THE OPERATIONAL FOCUS SCORE BY FUNCTIONAL GROUPS



### CORRELATION OF TRUST AND PERSONAL RELATIONS WITH INNOVATION CULTURE AND OPERATIONAL FOCUS



Organizational Profiles \* Hiring for Employees \* Selection of Leaders



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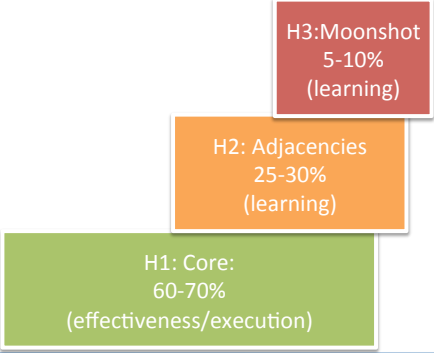
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End of Session