

# Threat Recognition in Incumbent Firms: A Case for Organizational Velocity

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# Thank You

## Dissertation Committee

Chair: Dr. Torsten Pieper, University of North Carolina, Charlotte

Second: Dr. Joseph Astrachan, Kennesaw State University

Reader: Dr. Clayton Christensen, Harvard Business School



# Today's Discussion

- Motivation for Study
- Research Question
- Gaps and Research Objectives
- Qualitative Research Design
- Sample and Data Collection
- Coding and Analysis
- Findings and Discussion
- Limitations and Future Research
- Questions & Answers

# Motivation

*It is not the strongest of the species that survive, nor the most intelligent, but the one that is most responsive to change (Darwin, 1859).*

*Organizations will inevitably face adversity that threatens their survival (Boin, 2009; Whiteman & Cooper, 2011).*

*Threat recognition is an antecedent to acting on these threats (Daft & Weick, 1984; Hambrick, 1982).*

*The global economy is becoming more dynamic, fueled by the commercial internet and connecting technologies allowing for vast amounts of data to be shared quickly, inexpensively, and simply (McGrath, 2010; Teece & Leih, 2016).*

# Unpacking the Black Box of Threat Recognition in Incumbent Firms

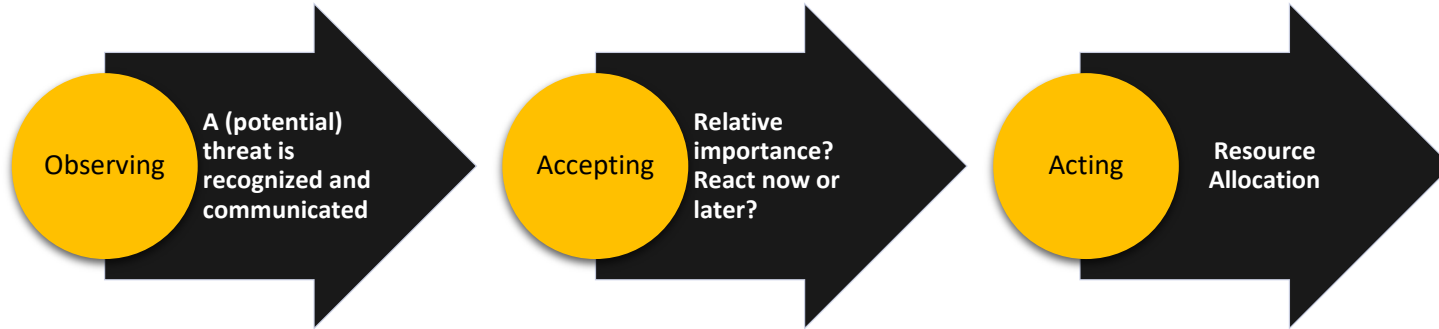
## Research Question



How do organizations successfully observe, accept (or not), and act (or not) on the range of threats that can cause them harm given the uncertain, ever-changing nature of these threats?

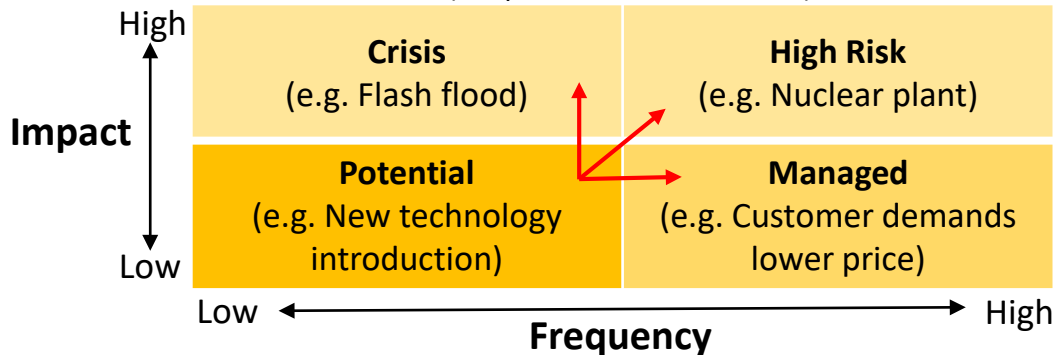
Early and appropriate threat recognition represents an important predictor of subsequent strategy and performance (Thomas, Clark, & Gioia, 1993; Waller, 1999)

# Threat Recognition is a Process Plagued with Uncertainty



## Uncertainty Continuum of Threat Environments

(adapted from Cleden 2009)



# Insights from the Management Literature

**Cognitive Barriers** (Upper Echelons, Dominant Logic, Absorptive Capacity, Sensemaking, Institutional Theory, Prospect Theory, Structural Rigidity)

**Corporate Control Valves** (Culture, Org Learning, Metrics, Rewards, Ambidexterity, Disruptive Innovation Theory, Mgmt. Discretion)

**Accelerators** (Open Innovation, Network Theory, Fast Decision Making, Coopetition, Platform Thinking, Dynamic Capabilities, Jobs to be Done)



# Gaps and Research Objectives

## Gaps



How uncertainty changes threat impacts over time



Variation in threat recognition performance among firms



Integrated perspective of threat recognition processes among different firms and industries

## Research Objectives



Generate insights on characteristics and processes used by firms to successfully (or not) recognize and respond to threats



Extend boundary conditions of Disruptive Innovation Theory.



Help organizations effectively recognize and respond to the right threats in an uncertain environment





# Qualitative Research Design

- A constructivist grounded theory approach was used because it is...
  - particularly useful for examining the **inner workings of organizations** and their rationalization processes (Langley, 1999)
  - well-suited to answer the “**how**” versus “**how many**” questions (Pratt, 2009)
  - allows the researcher to address “**grand challenges**” riddled with complexity, uncertainty, and entangled technical and social elements (Eisenhart, Graebner, & Sonenshein, 2016)
- The uncertainty component of threat recognition coupled with the varying contexts of threat recognition within an organization make this “**messy**” data conducive to the qualitative method (Langley, 1999, p. 691).
- In situations where **extant theory does not fully explain the phenomenon of interest**, a grounded theory approach is expected to produce more novel and accurate insights than depending on past research (Glaser & Strauss, 1967).

# Sample and Data Collection

- Convenience sampling of decision makers (e.g., VP/Colonel and above) in industry and the military.
  - Targeting leaders “in the room” as threat recognition decisions are made.
- Certain background information on each decision maker was collected (time with firm, time in current position, academic background, financial reports, press releases, etc.).
- The initial list of interview candidates came from professional relationships the researcher had through his position at a large U.S. service firm and recommendations from his dissertation committee.
- In total, 26 interviews took place over a 6-month period.

# Sample

Code	Position	Tenure	Revenue	SIC	Time
1E	C-Level	2	>\$50B	Transport, Communications, Electric, Gas, Sanitary	47
2E	VP/Pres.	28	>\$50B	Transport, Communications, Electric, Gas, Sanitary	44
3E	C-Level	9	<\$50B	Finance, Insurance, Real Estate	67
4E	VP/Pres.	14	<\$50B	Retail Trade	59
5E	VP/Pres.	24	<\$50B	Wholesale Trade	35
6E	VP/Pres.	40	Private	Manufacturing	9
7E	VP/Pres.	18	Private	Manufacturing	49
8E	VP/Pres.	2	<\$50B	Services	50
9E	Director	3	Private	Transport, Communications, Electric, Gas, Sanitary	58
10E	VP/Pres.	8	<\$50B	Services	30
11E	Director	1	<\$50B	Manufacturing	43
12E	VP/Pres.	3	>\$50B	Retail Trade	30
13N	C-Level	3	Private	Services	67

Code	Position	Tenure	Revenue	SIC	Time
14N	VP/Pres.	2	>\$50B	Retail Trade	43
15N	Director	5	>\$50B	Retail Trade	64
16N	VP/Pres.	3	<\$50B	Retail Trade	48
17N	C-Level	11	Private	Finance, Insurance, Real Estate	42
18N	C-Level	1	Private	Services	51
19N	C-Level	17	Private	Finance, Insurance, Real Estate	44
20N	VP/Pres.	5	Private	Services	55
21N	C-Level	6	Private	Services	40
22M	Colonel	30	Govt.	Military	35
23M	Colonel	35	Govt.	Military	45
24M	Colonel	27	Govt.	Military	44
25M	General	35	Govt.	Military	67
26M	Colonel	24	Govt.	Military	73

# Sample Summary



Informant Positions	
C-Level	7
VP/President	11
Director	3
General	1
Colonel	4
Organization Detail	
SIC Divisions	7
Public	11
Private	10
Military	5
Family-Owned	4
<b>Avg. Interview Time</b>	<b>48m</b>

# Interview Process

- Most of the interviews (15) were conducted in-person with the others via phone.
- Each interview was recorded and transcribed within a week of the interview and checked for accuracy and completeness.
- Each interview started with a short career review to ease into the interview while providing the researcher cues on potential threat recognition events in the subjects past positions.
- As themes began to emerge during the interview process, the researcher asked additional questions regarding those themes if the subject had not already mentioned them.
- Interviews continued until no new insights emerged after coding the interview.

# Coding and Data Analysis

- QDA Miner data analysis software was used to facilitate coding, memoing, code refinement, and analysis.
- The initial sentence-by-sentence coding of the interview transcripts generated 297 codes honed to 66 codes over eight iterations.
- From the coding process, 17 categories emerged, most reflecting an enabler/inhibitor logic based on impact to the threat recognition process.
- The categories were then grouped into themes consistent with the interview questions posed in the study.

# Category Building

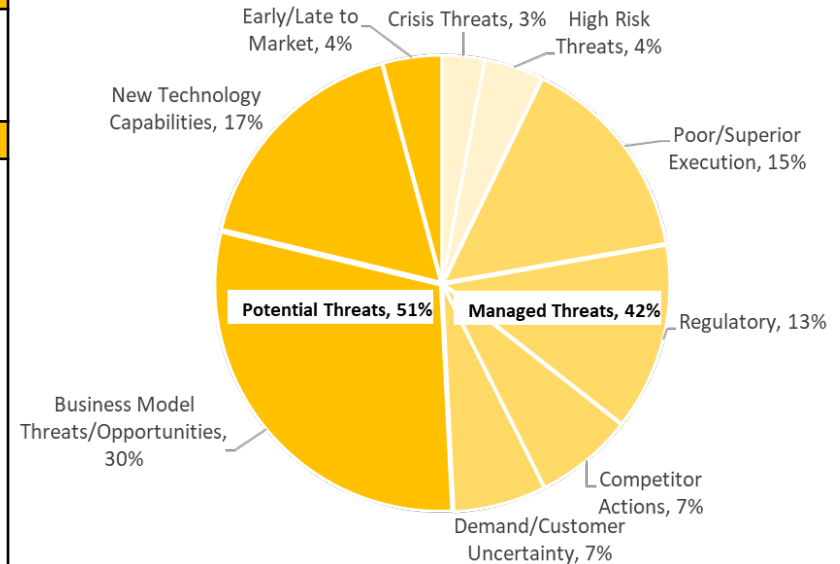
CODES	CATEGORIES	KEY THEMES
Rapid Change	Business Environment	Organizational Threats
Uncertainty		
Pan-Industrial		
High Risk Threats	Threat Types	
Crisis Threats		
Managed Threats		
Potential Threats	Observation Enablers	
Monitor/Test/Review		
Visualize Future		
Focus on Opportunity, Not Threat	Accepting Threat Enablers	
Alignment		
Compelling Narrative		
Common Language/Simplify	Accepting Threat Inhibitors	
No Imminent Threat		
Loosely Coupled Subunits/	Org. Structure Enablers	Acting on Threat
Innovation Group/Environment		
Private/Family vs. Public		
Hierarchical Structure/Process	Org. Structure Inhibitors	
Asset Intensity		
Complexity/Size		
Mutual Trust	Org. Culture Enablers	
Innovation/Embrace Change		
Employee Led		
Collaborative/Embrace Diversity		
Status Quo Acceptance	Org. Culture Inhibitors	
Inertia/Risk Aversion		
Consensus		
Politics		

CODES	CATEGORIES	KEY THEMES
Schwerpunkt	Org. Choice Enablers	
Consumer-Driven		
Talent Acquisition/Retention		
Organization Learning		
Speed as Competitive Advantage		
Spending Authority	Org. Choice Inhibitor	
Efficiency vs. Growth		
Margin/Financial Pressure	Mgmt. Choice Enablers	
CEO/Leader-Driven		
Speed Over Perfect		
Go on Offense		
Many Small Bets/Pilots		
Information Access		
Change When Strong		
3 <sup>rd</sup> Party Collaboration		
Invest/Buy Competitors	Mgmt. Choice Inhibitors	
Reconfigure Assets		
Customer/Supplier Resistance	Technology Enablers	
Consultant Reliance		
Data-Driven	Technology Inhibitors	
Industry 4.0 Technology		
"Disrupter Trifecta"	Leadership Characteristic Enablers	
Technology Skill Gap		
Bias for Action		
Know Business/Good Judgement		
Empower Their People		
Challenge Status Quo		
Outside-In Mindset/External Input		
Forward Thinking/Creator		
Adaptable		
Founder Mentality		Corporate Control Valves
Capital Allocation/Planning		
Metrics and Rewards		

# Theme: Organizational Threats

*All leaders referenced the dynamic business environment*

CODES	CATEGORIES
Rapid Change	Business Environment
Uncertainty	
Pan-Industrial	
High Risk Threats	Threat Types
Crisis Threats	
Managed Threats	
Poor/Superior Execution	
Regulatory	
Competitor Actions	
Demand/Customer Uncertainty	
Potential Threats	
Business Model Threats/Opportunity	
New Technology Capabilities	
Early/Late to Market	



***"You can lose your business very fast. (3E)"***



*“We have the bandwidth available to us, to move from 30-40 megabits per second to a gig in the last eight years. If you don’t think that that’s meaningful—it’s extraordinary. **It changes everything...** All you need is imagination... you’ve got Moore’s Law that’s driven an explosion in data (and) also in parallel, you’ve got an explosion of open source machine learning algorithms that are ongoing, and bandwidth has become free.... and it’s not over. It’s going to change. **And if people that run these traditional companies think running a little faster and jumping a little higher is going to do it, you better think again.** (3E)”*



## Theme: Observing Threats

CODES	CATEGORIES
Monitor/Test/Review	Observation Enablers
Visualize Future	
Focus on Opportunity, Not Threat	

*“...they could see how often people were using those apps. So, from that they created an early warning system. (16N)”*

## Theme: Accepting Threats

CODES	CATEGORIES
Alignment	Accepting Threat Enablers
Compelling Narrative	
Common Language/Simplify	
No Imminent Threat	Accepting Threat Inhibitors

*“ I’ll hear things coming out of people’s mouths, and it’s like, I just got dumber. An antidote to threats is simplicity, clarity. (23M)”*

*“ I’m done, now I’m not worried about this mission. (6E)”*

# Theme: Acting on Threat (part I)

CODES	CATEGORIES
Loosely Coupled Subunits/Decentralized Innovation Group/Environment Private/Family vs. Public	Org. Structure Enablers
Hierarchical Structure/Processes	
Asset Intensity Complexity/Size	
Mutual Trust Innovation/Embrace Change Employee Led Collaborative/Embrace Diversity	Org. Culture Enablers

CODES	CATEGORIES
Status Quo Acceptance Inertia/Risk Aversion Consensus Politics	Org. Culture Inhibitors
Schwerpunkt Consumer-Driven Talent Acquisition/Retention Organization Learning Speed as Competitive Advantage Spending Authority	

***“ It’s hard to be agile, move quickly, when you are of a scale and matrixed for efficiency. (6E)”***

***“ You can actually be too smart and therefore sleepwalk yourself into becoming irrelevant over time. (6E)”***

# Theme: Acting on Threat (part II)

CODES	CATEGORIES
Efficiency vs. Growth	Org. Choice Inhibitors
Margin/Financial Pressure	
CEO/Leader-Driven	Mgmt. Choice Enablers
Speed Over Perfect	
Go on Offense	
Many Small Bets/Pilots	
Information Access	
Change When Strong	
Third Party Collaboration	
Invest/Buy Competitors	
Reconfigure Assets	

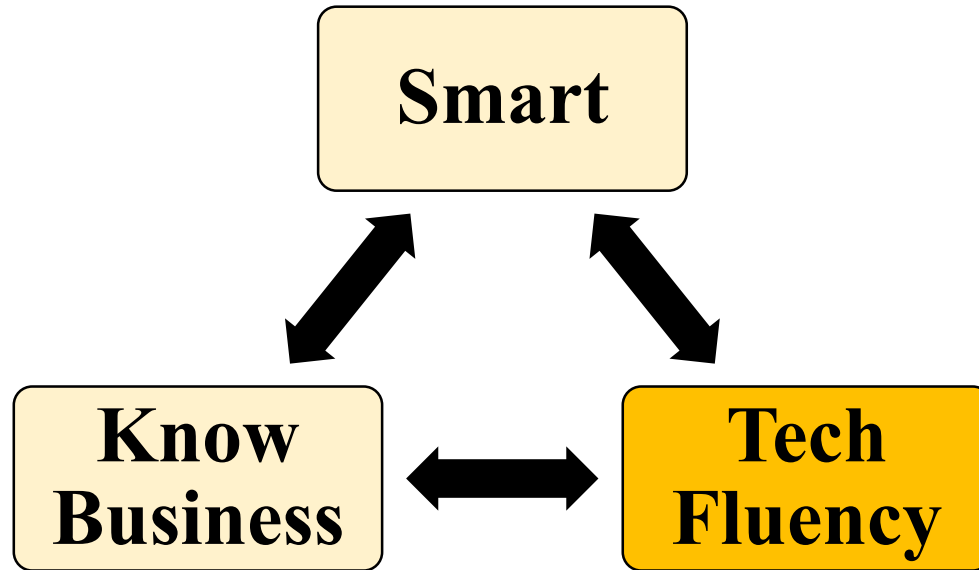
CODES	CATEGORIES
Customer/Supplier Resistance	Mgmt. Choice Inhibitors
Consultant Reliance	
Data-Driven	Technology Enablers
Industry 4.0 Technology	
“Disruptor Trifecta”	Technology Inhibitors
Technology Skills Gap	

***“ I don’t want to see a 50-million-dollar proposal until I see a 10-thousand-dollar truth. (21N)”***

***“ Because it’s a data-driven culture, it isn’t about who you know...you learn (to) codify your threats in a way that cuts straight into the decision maker. (21N)”***

# Disruptor Trifecta

*A requirement for success emerging from the data is for top management to be smart (e.g. good judgement), know their business, and be technology fluent*



# Theme: Leadership

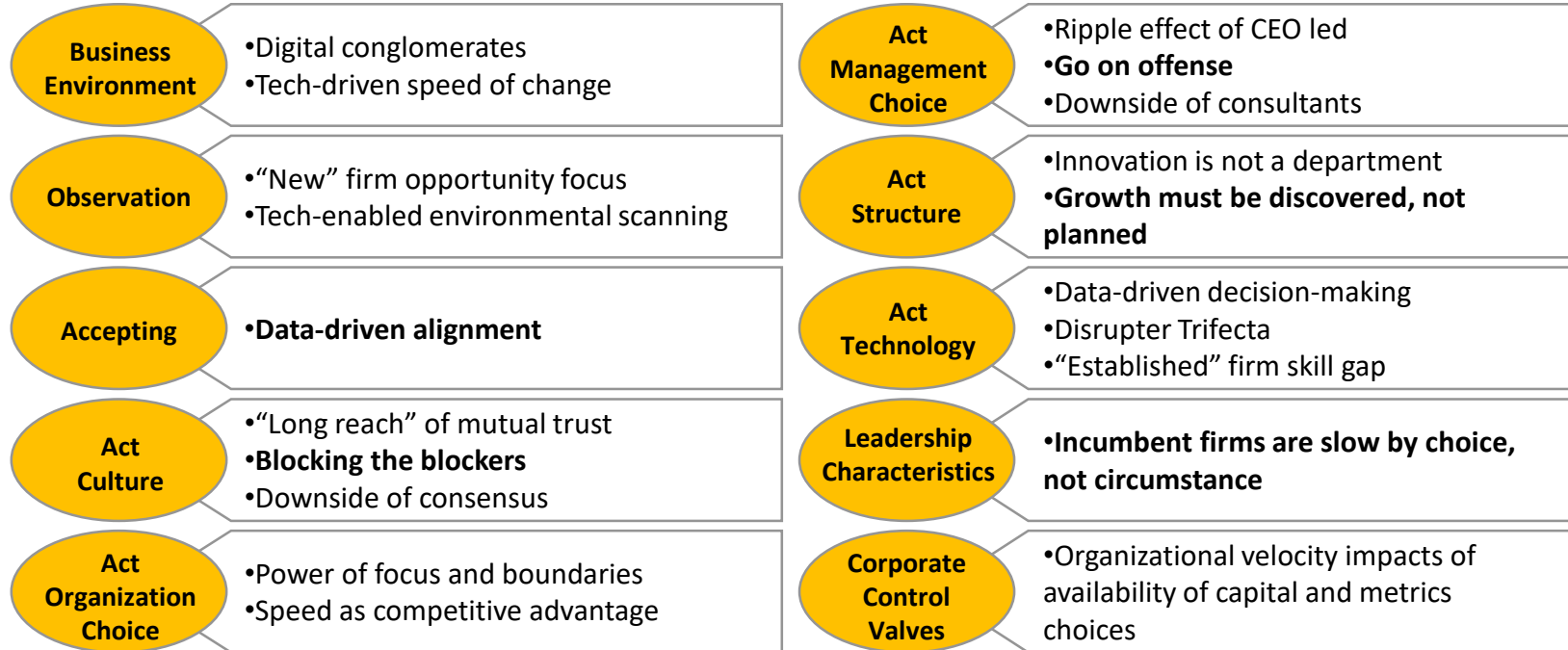
CODES	CATEGORIES
Bias for Action	Leadership Characteristic Enablers
Know Business/Good Judgement	
Empower Their People	
Challenge Status Quo	
Outside-In Mindset/External Input	
Forward Thinking/Creator	
Adaptable	
Founder Mentality	
Capital Allocation/Planning	Corporate Control Valves
Metrics and Rewards	

***“I have to blow this up. If we’re just trying to do the same thing better and faster, we are going to be outmaneuvered. (26M)”***

***“You don’t plan the future; you discover growth in the future. (23M)”***

***“Capital’s not a problem. What’s broken is the how and the permission. (21N)”***

# Unexpected Findings from Research



# Creating Organizational Velocity

To breakthrough barriers, change when strong, set the pace and provide permission to innovate.

**CEO Led**

**Mutual Trust**

Trust is a lubricant to friction inhibiting organizational velocity. Many “speed bumps” result from lack of mutual trust.

**Data-Driven Decision-Making**

*“Speed Bumps”*

Allows for broad, continuous environmental scanning and data analysis providing a single version of the truth to decision makers.

*Consultant Reliance*

*Tech Skills Gap*

*Customer Resistance*

*Siloed/Permission-Based Information Access*

To create alignment (where are we going, why are we doing this) and establish the boundaries to allow individuals and teams to freely act in a coordinated fashion.

**Growth Structure and Metrics**

*Low Spending Authority*

**Main Focus/  
Boundaries  
(Scwherpunkt)**

For new growth, structure to allow “many small bets” with metrics that enable the failure/learning necessary to discover growth.

*Uncertainty-Driven Dishonesty*

*Politics*

*Incomplete “Disruptor Trifecta”*

Create internal capability to understand and act on available alternatives with speed, breadth, adaptability.

**Consumer/  
External Focus**

**Tech-Savvy**

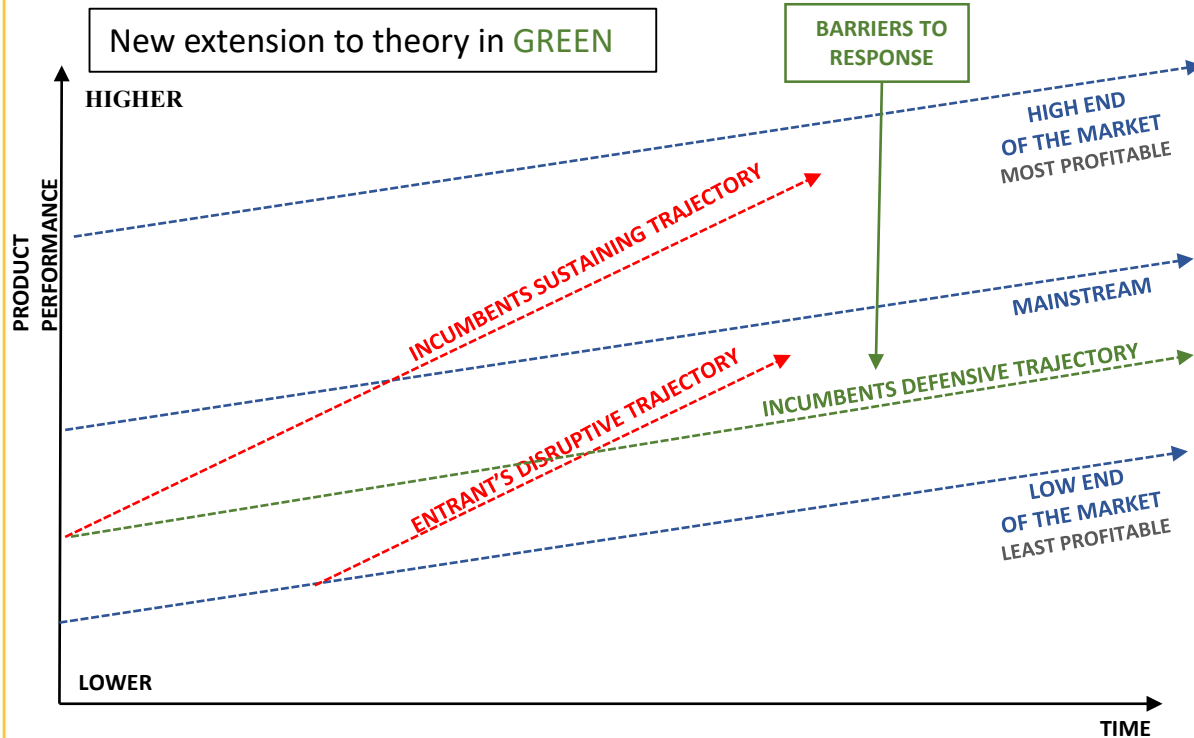
Business begins and ends with the consumer in the digital economy. Firm success comes from customer and ecosystem partner success.



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# Extending Disruptive Innovation Theory



**“Barriers to Response”**  
may inhibit a firm's  
ability to adapt to  
disruptive competitors

1. **Customer resistance**
2. **Tech skills gap**
3. **Labor contracts, long-term leases**  
(Markides, 2006)
4. **Too architecturally different** (Henderson & Clark, 1990)

Adapted from Christensen, C., Raynor, M., & McDonald, R. (2015). What Is Disruptive Innovation? *Harvard Business Review*, 93(12), 44–53. Retrieved from <http://search.ebscohost.com.proxy.kennesaw.edu/login.aspx?direct=true&db=bth&AN=111099338&site=eds-live&scope=siteE>

# Research Limitations and Challenges

- All but one of the organizations interviewed were **US-based** limiting generalizability of study.
- Only one of the informants was **female** which could introduce gender bias.
- Multiple interviews were only conducted in **two organizations** where responses could be compared and verified.
- Several of the interview candidates were generated from the suggestions of leaders who had already been interviewed.
  - This “**snowball sampling**” introduces methodological concerns including the generality of data and likelihood that informants share a similar worldview.
- The study captured leader responses at a **specific moment in time**.
- Senior leaders from established companies were interviewed, but not CEO’s or board members. Likewise senior leaders from failed firms were not sought out.
- **Serial position effects** were not considered. All insights were valued similarly, whether they came from the informants' current firm or past firm.
- Researcher familiarity created increased risk of **confirmation bias**.

# Future Research

- Focused research on specific aspects of threat recognition revealed in this study
  - Effects of incentives on threat recognition activities.
  - What kinds of threat recognition processes are most important based on industry, where should they happen within the firm and who should be involved?
  - Longitudinal case study to better understand how potential threats morph to become impactful over time.
- Explore extensions to existing management theories emerging from this study
  - Have “barriers to response” replaced the desire to go after greater profits at the high end of the market as the primary reason for incumbent disruption?
  - Does technology-based environmental scanning and analysis add another layer to the notion of sensemaking theory?
  - Is organizational velocity something new or just another dynamic capability (Dykes et al., 2019)?
- Quantitative research on proposed relationships
  - The three cornerstones of the Disruptor Trifecta (smart, know business, tech fluency) and performance.
  - Three potential antecedents to Organizational Velocity (CEO led, mutual trust, and tech fluency) and performance.
  - Mutual Trust as a moderator to Organizational Velocity and Performance.

Q&A



# What's Next?

1. Additional interviews (Koch, Cargill, Microsoft, Dell) and follow-ups
2. Book
3. Business-oriented journals (e.g. HBR, MIT Sloan, California Business Review)
4. Academic-oriented journals (e.g. Strategic Management Journal, Long Range Planning)
5. Conference Paper (e.g. SMS Special Conference, "A Brave New World: Strategies for Adapting to a Changing Environment")