

# Managing Complexity in Disruptive Environments: Applying Adaptive Principles to Strengthen Business Resilience

## INTRODUCTION

This study examined how leaders of large companies in the United States operationalize the principles of complex adaptive systems in business strategy to create organizational systems that are open, self-organizing, adaptable to external influences, and proactive in the face of disruptive innovation.

Disruptive events are common. In the last five years, businesses have experienced the COVID-19 pandemic, new tariffs, and an increase in catastrophic disasters.

According to FEMA, about 25% of businesses do not reopen after disaster. There is a lack of information available about HOW business leaders remain competitive in these environments.

Research is clear that businesses that use a complex adaptive systems approach are more resilient and better able to handle disruption. What isn't clear is how they accomplish this task throughout their organizations.

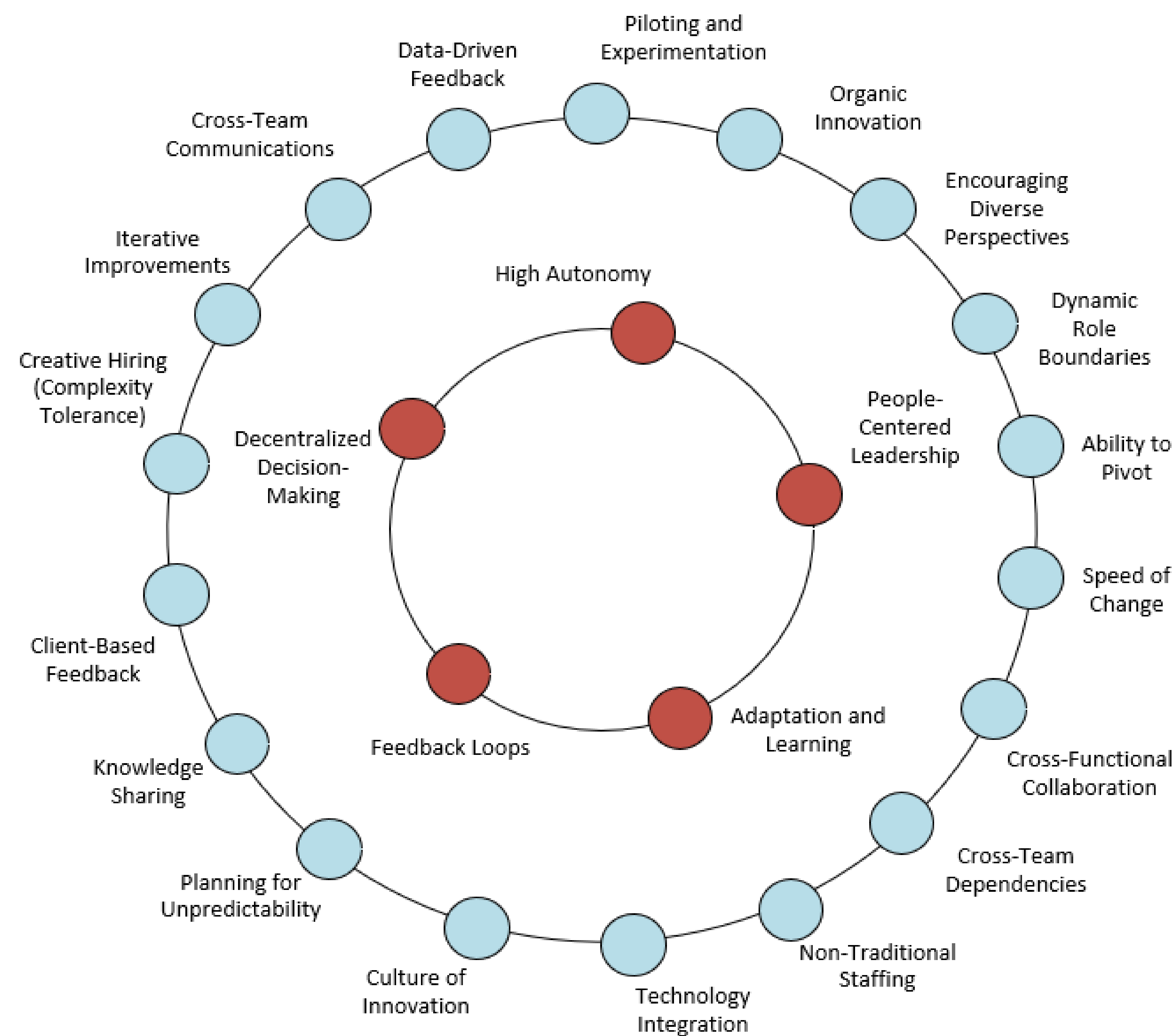


## METHOD & SAMPLE

This qualitative inquiry used non-probability purposive sampling for interviews with 15 business leaders throughout the United States. Participants had demonstrated experience in strategic decision-making and organizational leadership. They also had experienced disruptive innovation or the need to quickly adapt their organization's strategy in response to complex or evolving challenges. Twelve primary questions were asked with follow ups as required to answer the research question.



## Two-Layer Thematic Model



## FINDINGS

### People-Centered Leadership

Creative hiring practices  
Complexity tolerance  
Cross-functional collaboration  
Cross-team dependencies  
Non-traditional staffing



### Decentralized Decision-Making

Leaders delegate decision-making across the organization for greater agility and speed.  
Leaders encourage diverse perspectives  
Diversity of opinions leads to better decisions



### High Levels of Autonomy

Leaders who are able to provide their employees with the ability to make decisions, change policy, and directly help clients without further approvals are better equipped to adapt in a changing and disruptive environment. This includes:  
Ability to pivot  
Culture of innovation  
Cross-team dependencies



### Constant Feedback Loops

Both employees and customers provide feedback to an organization. By finding ways in which that feedback can be utilized, the business can learn, implement new strategies or processes, and grow. This includes:  
Cross-team communications  
Data-driven feedback  
Client-based feedback  
Technology integration



### Adaptation and Learning

Dynamic role boundaries  
Organic innovation  
Piloting and experimentation  
Iterative improvements  
Knowledge sharing  
Culture of innovation  
Planning for unpredictability



## APPLICATIONS & RECOMMENDATIONS FOR FUTURE RESEARCH

This study provided key insights into how business leaders use and implement the principles of complex adaptive systems in disruptive environments to remain competitive.

1. It emphasized the significance of flexible business approaches, adaptable policies and procedures, investment in employee growth, and a growth mindset.
2. Implementing the approaches within this study into business operations has the potential to increase profits, increase competitiveness, and improve business efficiency.
3. An expansion of the participants to include businesses with less than 100 employees and determining whether the data is transferrable to global business enterprises and specific business sectors would be beneficial.

