Improving Resilience in an Increasingly Complex World

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Creating The Enduring Enterprise Through Resilience….

- Adaptive Risk Management
- Values Based Leadership
- Governance

*In a Continual State of Renewal*
Resilience means improving corporate performance and enhancing long term shareholder value

The Resilient Enterprise

Enhanced Shareholder Value

- Lower Cost of Capital
- Generate Growth
- Minimize Earnings Disruption
- Seize New Market Opportunities

Manage Risk
- Market
- Operational
- Cultural
- Compliance
- Political
An adaptive approach to managing risk in a complex business environment.....

- Increased complexity
- Greater interdependence
- Old risk management is inadequate ...
- New risk management must adapt to the new risk environment
Resilience is a continual journey of reinvention

Resilience is the Goal.
Goal State – Embedded capability to dynamically reinvent strategy and operating model

Transformation is the Path
Transition State – Change begins to yield step-function performance in a new competitive space

Complexity and Uncertainty is the Challenge
Initial State – Characterized by a lack of awareness or a struggle to survive

Impact / Frequency of Strategic Transformations

Time, Expense (Budget) and Emotional Energy Required to Effect the Transformation
Stress Test: Biological Warfare
The simulated epidemic began in Detroit/Windsor and Norfolk, and subsequently spread to 25 states in three weeks.
Teams faced several dilemmas in responding to the bioterrorism attack

- Paradox 1- Complex Relationships

- Paradox 2- Bet the farm or not

- Paradox 3- Local response, National problem

- Paradox 4- Short term fixes, Long term problems

Requiring: Values Based Leadership, Adaptive Risk Management, and Responsible Governance
Stress Test: *Port Security and Supply Chains*
If a weapon did slip through a port, it could end up anywhere in the shipping system within hours or days.

Contiguous US Shipping Infrastructure

- 85 deepwater ports; 46 container ports
  - 137 commercial vessel calls each day; 43 container vessel calls each day
  - Approximately 20 thousand containers imported each day

- Over 185,000 miles of rail in the North American Rail System
  - 8,000 locomotives, 1.6 million freight cars
  - Carrying over 6 million containers a year

- Containers are also trucked up to 500 miles from ports to their final destinations
As a result of decisions made during the game, the U.S. suffered significant economic loss.

Container Backlog – Port of Los Angeles
(In Port and On Vessels in Harbor)

Economic Impact – All Ports

Day

1000 TEU

Day

$ Billion

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**Five Key Learnings**

- **Leadership** must embrace security as a strategic concept for global trade resilience—*it’s the extended enterprise*

- **Security can’t be bolted on**

- **Business models** must evolve so that security is embedded in the industry economics—*change operating models*

- **Point solutions don’t work**

- **Global trade resilience** requires a layered, end-to-end approach—*a network problem*

- **Public-private partnerships**, local and national, are essential to finding an effective global solution

- **Federal leadership needs to be unified**

- **A single government focal point** is needed to ensure the security and resiliency of global trade—*creation of DHS*

*Requiring: Values Based Leadership, Adaptive Risk Management, and Responsible Governance*
Achieving Enterprise Resilience

Values Based Management

Adaptive Risk Management

Governance
The Extended Enterprise in Most Industries is Very Complex

**Business Model**
- Brand and reputation
- Earnings volatility
- Counter-party risk
- Unseen boundaries of “extended enterprise”
- Customer expectations
- Dependency on third-party solutions / outsourcing
- Process controls

**Operational Risks**
- Facilities and infrastructure security
- IT systems and infrastructure stability
- IT architecture flexibility and scalability
- Vendor viability

**International Risks**
- International treaties
- Monetary policy
- Government regulations
- Interest rate regulations
- Political stability

**Domestic Risks**
- State Insurance Regulations
- Privacy / security regulations
- Federal and state tax changes
- Compliance

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*The diagram illustrates the components of the extended enterprise in the insurance industry, including government agencies, distribution channels, career agents, banks, regulators, strategic partners, financial markets, and operational risks.*
Resilient Enterprises: Three Key Dimensions

Values Based Management

Adaptive Risk Management

Governance

Values Creating Value

Network Theory in Management Science

Organization Theory in a Changed World

The Resilient Enterprise

Contributing to Sustainable Performance

SBT
Resilient Enterprise: continuous renewal and transformation

Enterprise Resilience Framework

- **Uncover**
  - Enterprise-wide Risks and Interdependencies

- **Endure**
  - Increased Risk and Complexity

- **Adapt**
  - Corporate Strategy and Operating Model

Creating Enterprise Resilience
Achieving Enterprise Resilience

Values Based Management

Adaptive Risk Management

Governance
A recent study examined values at 150 companies in Europe
Most respondents noted an increasing importance of corporate values

How do you expect the importance of corporate values to evolve in the future?
- Decreasing: 4%
- Constant: 20%
- Increasing: 76%

Do you believe that living the values in your company pays off economically?
- No Belief in Pay-Off: 5%
- Belief in Pay-Off: 95%
Values relate to partnerships, business model, and governance

What are the objectives / benefits of corporate values?

- Facilitate Cooperation: 73%
- Improve Image: 70%
- Maximise Profits: 65%
- Limit Business Risk: 65%
- Take Social Responsibility: 57%
- Foster Honesty: 41%
- Avoid Fraud: 32%
- Facilitate Control: 24%

Profit-Risk-Balance

Note: Multiple answers possible
Most European companies regularly reject business opportunities

How would you rate the board of directors’ concern for values vs. profit?

- Not at all: 3%
- Somewhat: 16%
- Totally: 35%
- Not at all: 30%
- Somewhat: 16%

Are there any situations in which your company’s code of ethics has led management to reject business opportunities?

- Not at all: 19%
- Somewhat: 11%
- Totally: 23%
- Not at all: 21%
- Somewhat: 26%
- Totally: 47%
The CEO must live the values within the company

In order to live the values, which of the following do you consider most influential?

- Personal Characteristics of Top Management: 50%
- Corporate Governance Rule: 18%
- Traditional, Symbolic Actions or Rituals: 11%
- Others: 6%
- Top Management Renumeration & Variable Components: 15%

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Achieving Enterprise Resilience

Values Based Management

Adaptive Risk Management

Governance
Not all risks need to be centrally managed and coordinated, just the ones that truly matter to your business.
Understanding impact of earnings drivers risks

Resilience Spend and 1-Year Impact-of-Failure on Earnings

EXAMPLE

$MM Margin Impact

FY02 Resiliency Spend

Earnings Driver 1  Earnings Driver 2  Earnings Driver 3  Earnings Driver 4  Earnings Driver 5  Earnings Driver 6  Other

$180.7  $210  $240.4  $380.7  $170.0

$290  $260  $380

$150.8  $20  $80

$100  $40  $20

$70  $20  $20

$180.9  $80  $70.4
Current resilience gaps and spend provide the basis for assessing initial options

Resilience Improvement Opportunities

- **Level of Current Investment/Cost of Major Failure**
  - Low
  - High

- **Size of Resiliency Gaps**
  - Low
  - High

- **Potentially Overprotected**
  - Efficient Current Spend;
  - Potential for Additional Investment
  - (16%)
  - (19%)
  - (484%)

- **Potential Inefficiencies**
  - Potential Investments
  - (64%)
  - (75%)
  - (94%)

EXAMPLE

Resource: [Booz Allen Hamilton](http://www.boozallenhamilton.com)
The operating model often requires adaptation to institutionalize resilience in the organization.
Achieving Enterprise Resilience

Values Based Management

Adaptive Risk Management

Governance
Stakeholder pressure: greater accountability for corporate oversight

The primary focus to date has been on regulatory and legal compliance and on board composition/structure.

Regulatory
- Sarbanes-Oxley
- SEC
- NYSE/ Nasdaq

Courts & Legal
- Shareholder suits (e.g., Oracle, Caremark)
- State Attorneys General
- Increased criminal-ization of certain corporate activities
  Courts are developing standards of good faith

Corporate Boards & Senior Management

Governance/Credit Rating Standards
- Dow Jones sustainability index ISS, Standard & Poors, Moody’s
- Governance Metrics
- Corporate Library

Shareholder Advocacy
- Fund managers (e.g., Calpers, TIAA-CREFF)
- Labor (e.g., AFL-CIO)
- International Corp. Governance Network

Heightened Media Scrutiny
- Brand Awareness

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Create a risk monitoring, “early warning”, and reporting system

Board of Directors

Board Committees

- Board oversight
- Periodic reviews

Information & reporting system

CEO

- Senior executive assessments and recommendations
- Identification and reporting of new risks
- Identifying and reporting risk contingency plans

C-Suite

COO CFO CIO CRO

External/internal risk monitoring
Call To Action
The Academic Community: Bridging the “management science” gap

The Adaptive Enterprise

- **Today’s Management Approach**
- **Strategy Based Transformation**
- **Complexity-Based Network Concepts**

Management Science Gap

- **Tomorrow’s Leadership Approach**
- **Governance Network Transparency**
- **Network Risk Mgt and Adaptive Response**
- **Network Cent Mgt**
- **Supplier Web**
- **Customer Web**
- **VBM**
- **CCM**
- **SCM**
- **NOM**
Private Sector: Taking Responsibility

MACRO RESILIENCE
(National/Global Level Program Focus)

MICRO RESILIENCE
(Company Initiative Focus)

Robust

Fragile

Time

Operating ‘At Risk’

Just in Case
(Maximum Robustness)

Just in Time
(Maximum Efficiency)

Industry Best Practice

Governmental Role
Public Sector: Planning flexible models and response

- Public Health
- Banking and Finance
  - Information & Telecom
  - Energy
  - COOP/COG

- Food/Agriculture
- Chemical/HAZMAT
- Defense Industrial Base
- Emergency Services
  - Transportation
  - Water
  - Postal and Shipping

DHS is Lead Agency

Newly Assigned Sector (National HLS Strategy)
The post-9/11 world introduces new realities and expectations

**PRE-9/11 PARTNERSHIPS**
- Protracted process
- Shaped by regulatory environment
- Generally defined the role of private industry as an “advisor”
- Often created around an individual element of an economic sector (e.g., NSTAC, ISACs)
- Focused on establishing permanent/static institutions and mechanisms

**PARTNERSHIP NEEDS IN THE POST-9/11 WORLD**
- Need for speed
- Shaped by need to share information and pool scarce resources
- Private industry and academia as a full-fledged partner in making decisions and investing
- Focused on relationships that are flexible and adaptable to changing conditions
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