Requirements & Transformations for Edge Organizations – Part I

IC2RTS 2005 Edge Organizations Track
Dr. Mark E. Nissen
Naval Postgraduate School

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Motivation

- Edge organization is fresh OD approach
- Question comparative & contingent performance
- Research problems with methods & contradictions
- COT as bridge method
- Center for Edge Power: MY, MD, MU R program

This study:
- Phase 1 – specify requirements & transformation pathways
- Characterize C2 orgs appropriate for war on global terror
Contingency Theory

No one, “best” way to organize

Rational, design view of organizations

Contingencies: environment, technology, interdependence, I-processing, others

Organize to improve & maintain “fit”

See Lawrence & Lorsch (67), Perrow (67), Thompson (67), Galbraith (77), others
Organization Consultant

Scholarship-based expert system
Research propositions → ES rules
Input: 6 org dimensions (Q&A)
Output (rule-based inference):
  - Diagnose misfits
  - Recommend transformations
See Burton & Obel (04)
Diagnosing C2 Organizations

- JTF unit of analysis
- Analyze as Hierarchy (Alberts & Hayes 03)
- 2 mission-environmental scenarios:
  - “Cold War” – relatively stable & predictable
  - “Global Terror” – relatively problematic & challenging
- ID misfits, requirements & transformations
- Analyze Edge characterizations also
## Scenario Differences

### Table 2 Input Differences between Cold War & Global Terror Scenarios

<table>
<thead>
<tr>
<th>Cold War</th>
<th>Global Terror</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 – 15 separate locations</td>
<td>Greater than 30 locations</td>
</tr>
<tr>
<td>100 – 500 mi ave distance</td>
<td>500 – 3500 mi ave distance</td>
</tr>
<tr>
<td>Few different markets</td>
<td>Many different markets</td>
</tr>
<tr>
<td>Few foreign markets</td>
<td>Many foreign markets</td>
</tr>
<tr>
<td>Standard, hi-volume technology</td>
<td>Specialized, custom technology</td>
</tr>
<tr>
<td>Semi-routine technology</td>
<td>Non-routine technology</td>
</tr>
<tr>
<td>Semi-divisible technology</td>
<td>Indivisible technology</td>
</tr>
<tr>
<td>Strong dominant technology</td>
<td>Weak dominant technology</td>
</tr>
<tr>
<td>Low uncertainty</td>
<td>High uncertainty</td>
</tr>
<tr>
<td>Low equivocality</td>
<td>High equivocality</td>
</tr>
<tr>
<td>High capital</td>
<td>Low capital</td>
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OrgCon Results

Cold War scenario
- Good fit overall
- Misfits: Defender strategy, H & V differentiation

Global Terror scenario
- Poor fit overall
- Misfits: Defender strategy, H & V differentiation, large units, centralization, micromanagement, formalization, I-media, Bureaucracy, others
### Table 3 Edge Organization Design Requirements

<table>
<thead>
<tr>
<th>Organization Area</th>
<th>Design Requirements*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization size</td>
<td>Small, possibly specialized units</td>
</tr>
<tr>
<td>Climate</td>
<td>Externally focused: Rational Goal or Developmental; use fewer written rules and procedures</td>
</tr>
<tr>
<td>Management style</td>
<td>Less micro-involvement; rapid &amp; reliable knowledge flows; incentives based on results; coordination through meetings; allow employees more latitude</td>
</tr>
<tr>
<td>Organizational characteristics</td>
<td>Less centralization, differentiation and formalization; Simple Structure with flat hierarchy</td>
</tr>
<tr>
<td>Technology</td>
<td>Specialized, custom, non-routine, indivisible, low-capital, heavy &amp; rich information flows</td>
</tr>
<tr>
<td>Strategy</td>
<td>Prospector or Analyzer</td>
</tr>
</tbody>
</table>

* Transformation pathways correspond as a set.
Contributions

- Illustrate use & utility of COT in mil C2
- Ground Edge analysis in Contingency Theory
- ID relative fits & misfits of current C2 orgs
- Induce requirements for Edge org
- Delineate transformation pathways
- Action plan for leaders & policy makers
- Inputs for computational experiments
Limitations & Future Research

Limitations
- Bridge research method, interpretation & judgment
- C2 is relatively new domain for OrgCon

Future research
- Analyze Edge orgs directly
- Fieldwork for model validation, calibration, extension
- Complementary studies ongoing & planned
- Center for Edge Power welcomes informed input