Requirements & Transformations for Edge Organizations – Part I

IC2RTS 2005 Edge Organizations Track

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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

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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

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

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

Edge Design Requirements

Table 3 Edge Organization Design Requirements

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

* 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