



Parts and the Whole: Some Perspectives on the Challenges of Differentiation and Integration

Daniel Levinthal

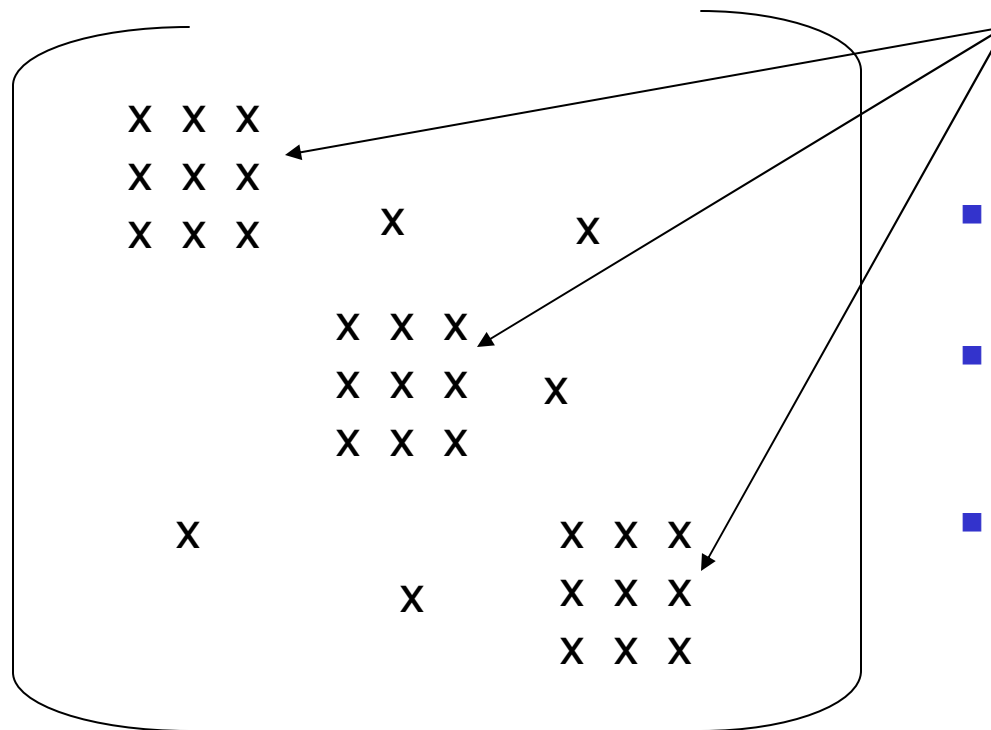
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Why Goal Conflict?

- Agency Theory
 - Intrinsic motivational differences
 - Private pecuniary (and non-pecuniary) gain
- Cyert & March (1963) and Lawrence & Lorsch (1967)
 - Divergent goals conflict stemming from division of labor and roles
 - Lack of complete task interdependence
 - Non-fully decomposable systems (Simon, 1962)

Nearly-Decomposable Systems



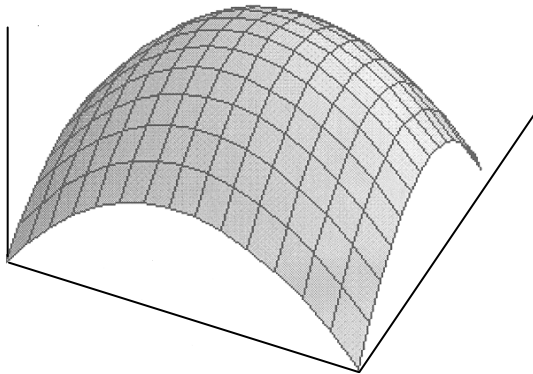
- Specialization
 - Knowledge
 - Policies and practices
- Task interdependences
- Culture, identity, values
- “Off diagonals” both bane of organizations and the raison d’etre



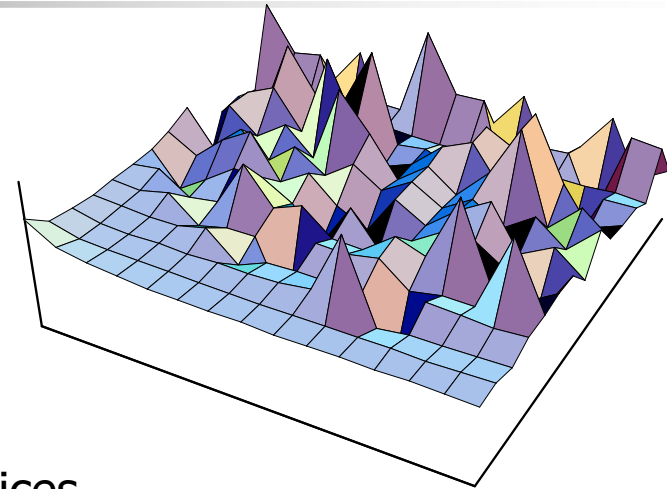
Two Faces of Partially Decomposable Systems

- Power of modularity
 - Flexibility of “mix and match” and parallelism of adaptation
- Interdependencies and the importance of configurations
 - Heterogeneity of organizational forms
 - Logics of distinct competitive positions
 - Implications for challenge of organizational change

Heterogeneity of Organizational Forms



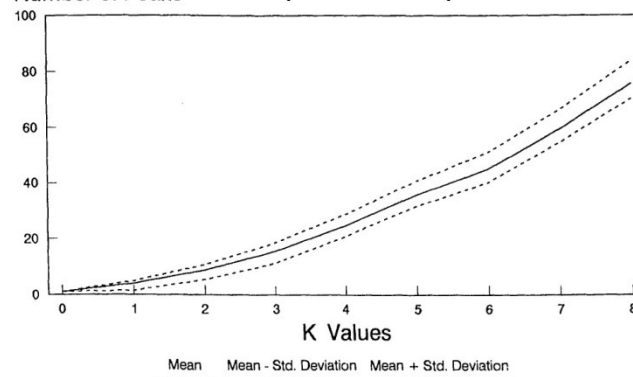
No Interdependencies: World of best practices and unique form



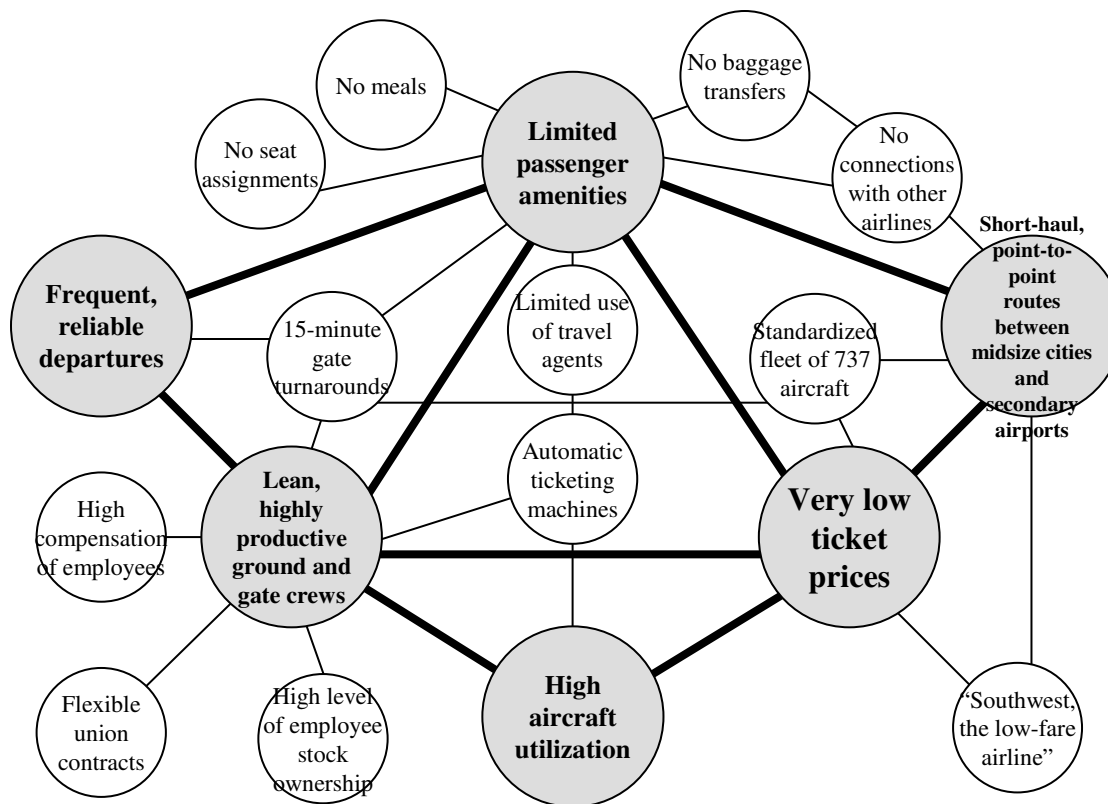
Interdependencies and multiple locally rational configurations

Figure 8 Variation in Landscapes (Number of Local Peaks)

(Levinthal 1997)



Interdependencies and Competitive Positioning

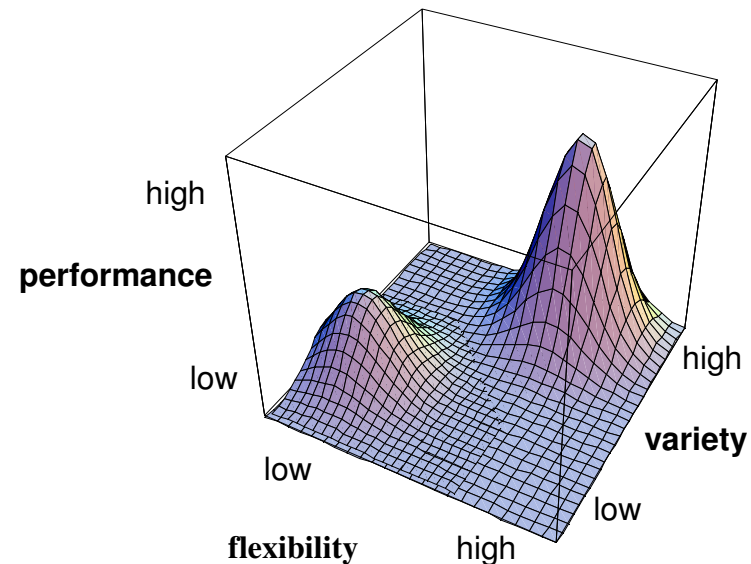


Source: Michael E. Porter "What is Strategy" *Harvard Business Review*, Nov-Dec 1996

- Logics of distinct competitive positions
- What prevents replication of an activity system?
 - Spatial preemption
 - Complexity of replication (Rivkin, 2000)
- How is the activity system specified?
 - Positioning exercise
 - Role of cognition (Gavetti and Levinthal, 2000)
 - Emergent
 - Siggelkow (2002)
- Are all policy choices freely variable --- are there any temporal constraints?
 - Ghemawat and Levinthal (2008)

Challenge of Organizational Change

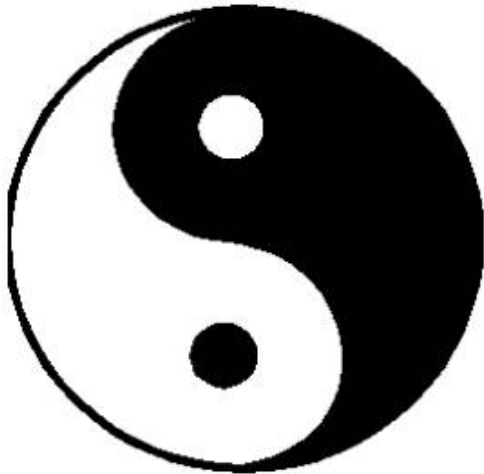
- Limits of incrementalism and local adaptation
 - Hill-climbing and risk of being trapped in a relatively poor local peak
- Breadth and stability of search
 - Rivkin and Siggelkow (2003)



N. Siggelkow (2001). "Change in the Persistence of Fit: The Rise, the Fall, and the Renaissance of Liz Claiborne," *Academy of Management Journal*



Differentiation and Integration



- Organizations
 - Foster interdependent action among actors with relatively specialized roles
- These tensions are central to theories of organizational design
 - M form
 - Matrix
 - Loose coupling
 - Dynamics of structures
 - Eccles & Nohria (2003), Siggelkow & Levinthal (2004 and 2005)



Identification Problems and Interdependent Systems

- Nearly decomposable systems allow for specialization and economize on bounded rationality
 - How can boundedly rational actors identify latent decompositions?
 - Schaefer (1999); Ethiraj and Levinthal (2004)
 - Coordination neglect (Heath and Staudenmayer, 2000)
- Empirical challenges
 - “Insider econometrics”
 - Field studies
 - Shift from questions of organizational design to organizations as an element in theories of populations (ecology, networks, institutional)
 - Observability of macro versus intra organizational data
 - Possible hope of new forms (i.e., emails) of data capture for intra organizational linkages