Path Dependence and corporate survival

Sub-optimal or inefficient technologies can be become locked in as industry standards, and these inefficiencies may persist for extended periods of time.[1]

QWERTY and VCR (VHS and Beta)

Path Dependence (PD)

- **PD** explains how the set of decisions for any given circumstance is limited by the decisions made in the past, even though past circumstances may no longer be relevant

- At a certain stage of development structured complex systems (institutions, markets products) become self reinforcing and stabilized against further change

Degrees of path dependence and economic consequenses 2

- First degree – random process of selection (indifference)
- Second degree –incomplete (unravelling) information (ex post)
- Third degree –complete information (ex ante)

Acknowledging *bounded rationality* and *imperfect and incomplete markets*

Standard Economic Explanations to PD 3

Switching Costs

Factors determining efficient institutional arrangements change over time. Despite a once efficient arrangement becomes inefficient it might be rational to keep seemingly inefficient institutions.

Difference between technical and societal aspects of institutional development since societal aspects often incorporates:

- *Distributed decision-making*
- *Sunk costs*
- *Entrenched property rights and decision rights of interest groups*
- *Network externalities*

Standard Economic Explanations to PD 3

- *Evolutionary Myopia*

–*Entities are assumed to act rationally under external pressure to adjust.*

– *Local and global optima can differ.*

–*Myopia leads them to the top of the local hill.*

Assumption of explanation have different implications on the force of external pressure

- *Strong external pressure*
- *Weak external pressure*

An Evolutionary Theory of Economic Change [4]

Proposition:

If change is a constant state in an economy it can be explained by an evolutionary process.

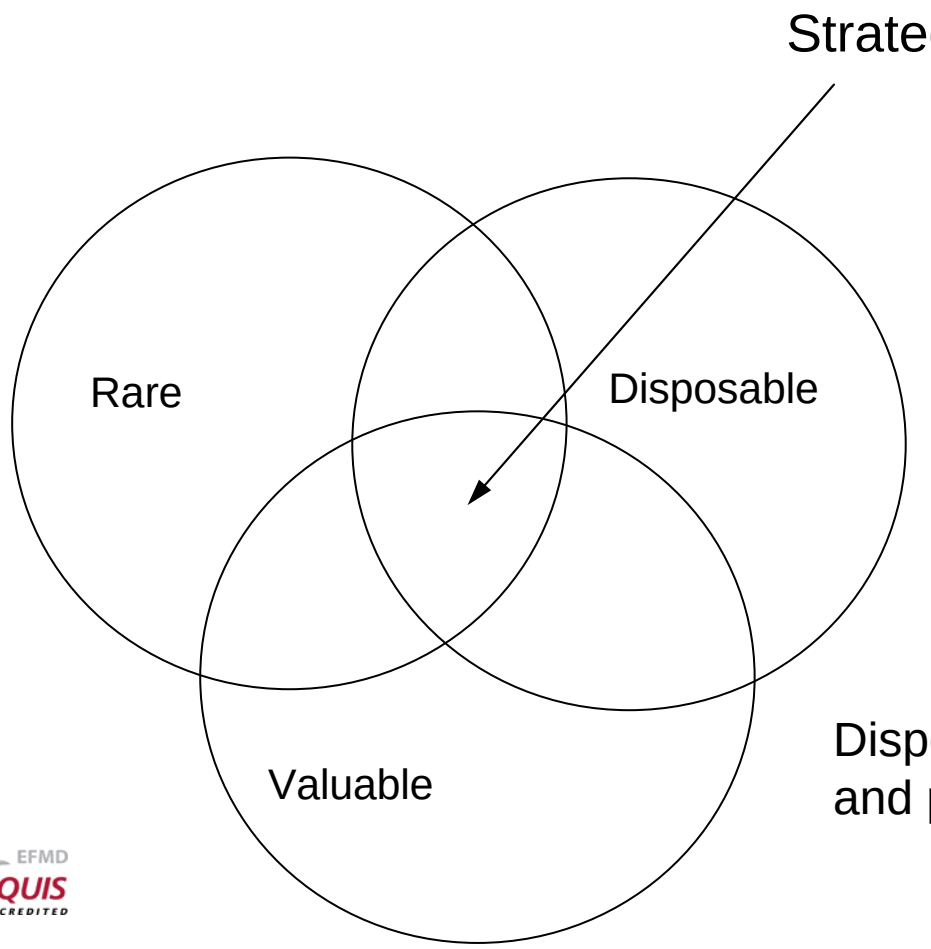
A Darwinian explanation demands mechanisms for:

- Selection - Market mechanism
- Variation - Resource Based View o strategy (RBV) [5]
- Self reproduction - Embeddedness and social networks [6]
  - Institutional theory and Isomorphism [7, 8]

Resource-Based view of the Firm

- Focuses on the firm internal heterogeneity as the primary explanation to a firm's economic performance
- Most resources are the same
- Focus on the resources that differs and that sustain an economic performance above average
- Sustainable competitive advantage
  - Above average performance for an industry

Sustained competitive Advantage



Disposable: Costly to imitate and possible to appropriate

Isolating mechanisms 9

Explanations to why resources are hard to imitate, substitute and more valuable within the firm

Unique historical conditions

Resources produced by historical events that are unlikely to be repeated because of the linear flow of time (patents, standards relations, competence)

Casual ambiguity

Resources produced by ambiguous processes

Social complexity

Resources produced by interaction among individuals operating within a social system

Institutional theory

- Institutions are organizations, lawmaking bodies, customs, cultural patterns
- Organizations are not autonomous agents seeking to maximize economic opportunities
- Constrained by a social web of norms and expectations

Legitimacy is the goal

- By conforming to social prescriptions organizations achieve approval, support and public endorsement
- Can be very hard to change or resist
- Are not always recognized. It is not an active choice to comply. There are no other alternatives

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Isomorphism

- Similar organizations experience similar social expectations and thus adopt similar strategies and managerial arrangement
- Two types: competitive and institutional isomorphism

Institutional isomorphism is created by three mechanisms

Coercive isomorphism

- Occurs as a result of actions by agencies such as the state or regulatory bodies.

Mimetic isomorphism

- Occurs in circumstances of ambiguity and uncertainty

Normative isomorphism

- Stems from professionalization

PD learning's for energy system development

- Relevant industries differ (production technology producers, energy producers and appliance producers)
- PD is a complex process with technological, social and economic aspects formed on several institutional levels (individual, corporate, societal and global) with causal ambiguity
- Corporate survival and PD mechanisms are intertwined

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