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NTIC and the managing of Information in the Globalization

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Economics and the Theory of the Firm

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● Why do firms need strategy?

- **Strategy is about planning.** Developing a strategy aims to achieve a particular objective
- In the military vocabulary, **strategy** is opposed to **tactics**. Strategy deals with the long run and global outcomes whereas tactics deals with local and context dependent actions.
 - **Strategy** is about conceiving, **tactics** is about implementing
 - **Strategy** is about creating the environment, **tactics** is about adapting to the environment.
 - **Strategy** is about creating resources, **tactics** is about using efficiently the resources.
- In fact, ***strategy is planning*** whereas ***tactics is adapting***.

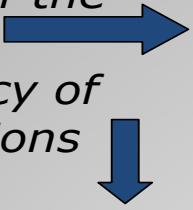
• **Why do we need planning in a free market economy?**

- **Hayek** (1937, 1945): Since it is impossible to centralize knowledge into one single brain, the market deals better with dispersed knowledge than planning
- Markets are **adapting coordination devices**. By their ability to create prices, they transmit the whole relevant information to economic agents: it is the Hayekian *Catalactic Order*.
- But if this is so, **why do firms exist?** Why capitalism needs systems ruled by planning where transactions occurs without pricing... if the market is the most efficient system?
- Bureaucracy is not just about the government. It also about firms (cf. Galbraith 1967: *The New Industrial State*)

● Why do firms exist?

- **Neoclassical Economics** deals mostly with markets (supply and demand curves...) where agents are supposed to be atomistic. It only recently tried to understand firms.
- R. Coase 1937: *The Nature of the firm*.
- For Coase, firms exist because market transaction has costs (search for information, bargaining and contract costs, opportunity costs...).
- The firm substitutes a hierarchy to a free contractual relationship between two peer agents. Why? Because it reduce market costs.
- The integration level depends on the ability of agents to access **information**, the **frequency** of transactions and **the specificity of assets** (Williamson 1975)

- **The boundaries of firms: to make, to buy or to contract?**

<i>Nature of the asset</i> <i>Frequency of transactions</i> 	Weak Specificity	Average Specificity	Strong Specificity
Low frequency	Short-term market contracting	Long-term contracting	Long-term contracting or integration
High Frequency	Short-term market contracting	Formalized Long-term contracting (alliance)	Integration

● Limits of the Transaction Cost Theory

- **Williamson** approach explains the choice between **integration** and **outsourcing** as a trade-off between two costs: the *market costs* and the *managing costs* that increase with the size of the firm.
- But the TCT is not about strategy, it's about adapting to costs and efficiently use resources. It's not about planning and creating resources. It gives the boundary of the firm, it doesn't explain its **evolution**. It is a **timeless approach**.
- For O. Favreau (1989), the Williamson model is an extension of the neoclassical approach: it is called **neo-institutionalism**.
- It is therefore necessary to reintroduce **dynamism** into the theory of the firm in order to understand its strategy.

- **The “Competency” Approach: A New Question**

- The question is not only to know why firm exist, but also to understand ***why they differ***.

*“The tendency to ignore discretionary firm differences in part reflects that economists are not interested in **behavior** and **performance** at the level of firms, but rather in broader aggregates-industry or economy wide performance. It reflects, as well, some strong theoretical views held by most main line economists about what economic activity is all about, and about the role and nature of firms in economic activity. My argument that discretionary firm differences within an industry exist and do matter significantly is part and parcel of my broader argument that neoclassical economic theory is badly limited.”* Richard R. Nelson 1991 (p. 62).

● **Edith Penrose and Alfred Chandler**

- For **Edith Penrose** (1959), the differences between firms are due to the **non transferable resources** they own. These resources give firm specific competitive advantages or disadvantages: *“integration may appear profitable because the firm believes it can produce some of its requirements... much more cheaply than it can obtain in the market”* (Penrose 1959 p. 148). This is the **Resource Based View (RBV)**
- For **Alfred Chandler** (1962, 1977). Some of these resources can be **developed and accumulated** by the firm: they are competencies. Firms are not only contractual entities. The “Visible Hand” of hierarchy is a different kind of hand than the “Invisible Hand” of the markets.

● **The Firm: A Place Where Competencies are Being Developed**

- Following Chandler, organizations have a specific advantage: their ability to develop new competencies.
- For that reason, outsourcing is not only a destruction of competencies: it is also the destruction of competencies to develop and improve specific competencies (famous ex. of IBM and Microsoft).
- For Chandler, competencies are *static* in the fact they characterize the specificities of organizations, but they also are *dynamic* because they make the organization evolve.
- The Firm is a *Knowledge Processor* rather than a mere *Information Manager*. It does not only deals with costs: it creates competitive advantages (*cf.* M. Porter)

● **An Evolutionary Approach of the Firm**

- Nelson and Winter (1982): The firm is a living system that adapt to its environment by developing new abilities.
- The firm is managed by both the management and **routines**:
 - **Routines** create the **organizational behavior** by developing collective behaviors. They emerge through the resolution of **recurring issues** by the members of the organization.
 - Routines have a **tacit dimension**: they are nether intentionally developed nor formalized into organizational procedures. They emerge because of the agents **bounded rationality** (H. Simon). Routines are a way to simplify choices. They are **social** and **context dependent**.
 - Routines are therefore difficult to transfer or to lose. They define the firm specificities. They are resources and competencies.

● Routines as Genes

- Definition: Routines are “*an executable **capability** for repeated performance in some **context** that has been **learned** by an organization in response to **selective pressures**” (Cohen et al., 1996)*
- For Nelson and Winter, routines are the genes of organizations:
 - They **characterize** organizations like genes characterize people.
 - Routines can be **imitated** and **transmitted** within an organization and between organizations like genes are being transmitted between individuals
 - Best routines are **selected** and will be more imitated depending on the advantages they give to the organization.
 - Limits of the analogy: no **phenotype** / **genotype** distinction. Does not take into account the role of the management. **No planning!!**

● **Organizational Learning**

- Learning can be define as an **evolutionary process** that implement a permanent change in behavior.
- Learning has a logic: it is not a random process. It necessitate pedagogy so it implies a **stable reference point** and the maintain of a **coherence**.
- So all routines cannot change together. To learn, an organization need to maintain some routines while other routines evolve. These routines are called “dynamic capabilities” (Nelson 1991): *“Dynamic capabilities arise from learning: they constitute the firm’s systemic methods for modifying operating routines. To the extent that the learning mechanisms are themselves systematic, they could (following Collis 1994) be regarded as ‘second order’ dynamic capabilities”* (Zollo et Winter 2002, p. 340).

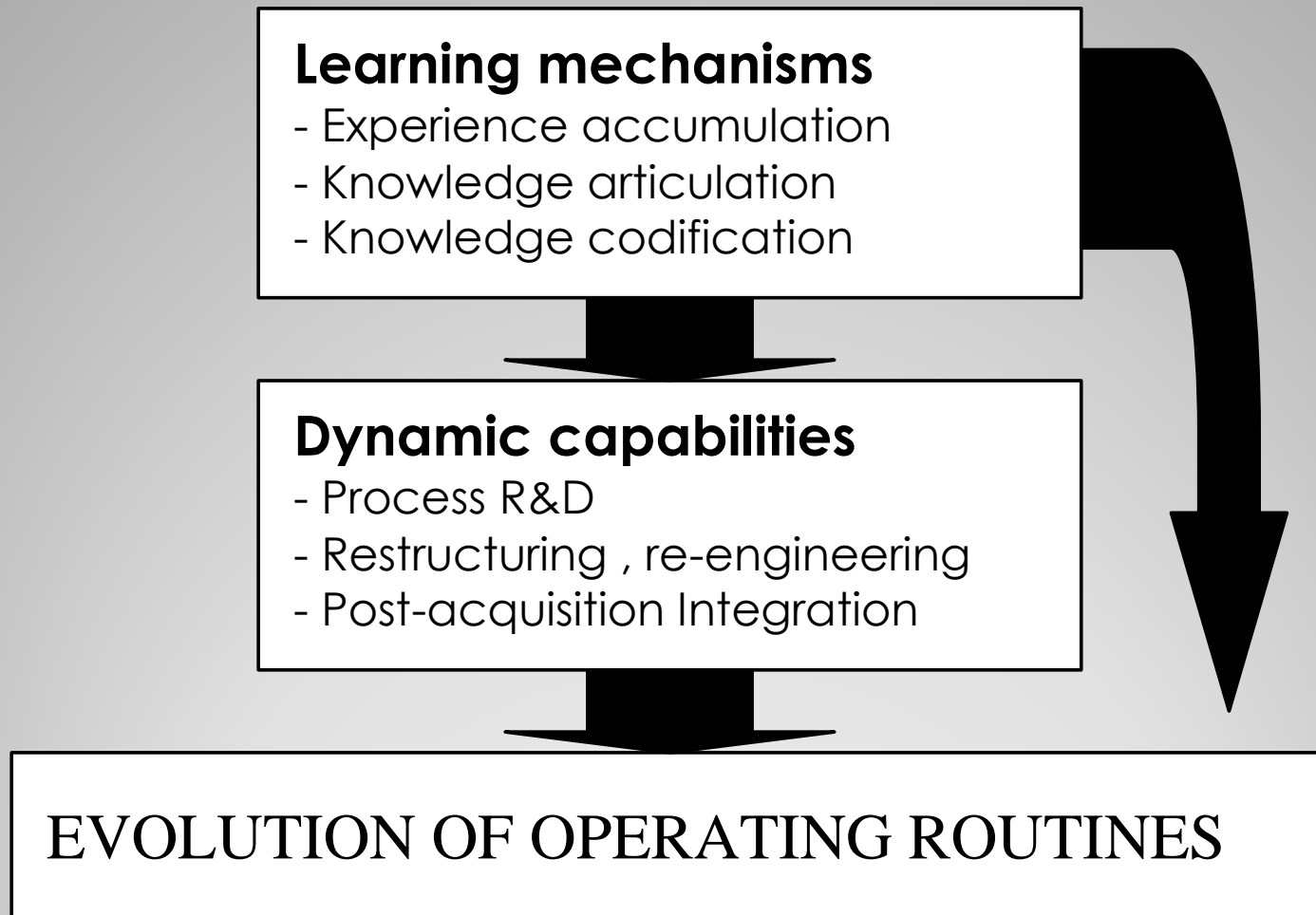


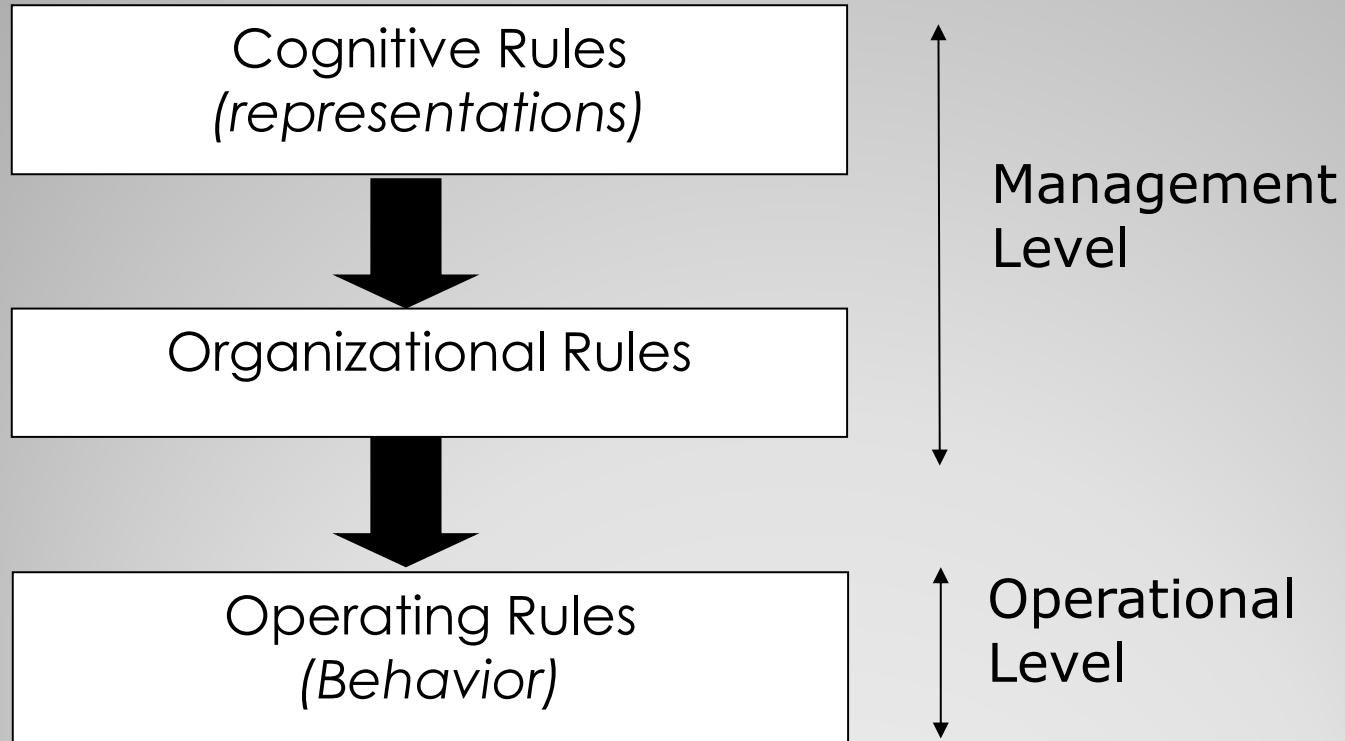
Fig. 1 : The Hierarchy of Routines (Zollo and Winter 2002, p. 340)

• Conclusion: Firms are Rules

- Rules are a way a collectivity of individuals manage to work together. They can be **formal** (codified) or **informal** (tacit). They can be **general** (need interpretation) or **specific** (need adaptation). *Rules define the collective behavior and therefore the organizational behavior.*
- They can be decided by the management (organizational rules) or they can emerge from the collectivity of employees (autonomous rules).

<i>Characteristics of the rules</i>	Specific	General	Types of Rules
Controlled	Command	Law	<i>Organizational Rules</i>
Autonomous	Action	Habits	<i>Operating Rules</i>

- **Conclusion: Rules have a hierarchy**



- **Conclusion: A Firm Learns by Processing Rules**

