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# ORGANIZATIONAL ECOLOGY

Organizational or Population Ecology offers a macro perspective on the creation and demise of organizations resulting from environmental selection processes (Hannan and Freeman, 1977, 1984). The theory assumes that superior organizational performance is associated with inertia, not change. Organizational Ecology therefore contrasts adaptive perspective represented by, e.g., Performance Feedback Theory (Cyert and March, 1963) or Dynamic Capabilities (Teece et al., 1997), which highlights the role of the organization itself and its choice of strategies in response to the environment.

Keywords: organizational ecology; structural inertia theory; selection and adaptation; liability of newness; liability of adolescence; liability of senescence; liability of obsolescence; liability of smallness; niche theory

## THE THEORY

The core assumption of Organizational Ecology (forming so-called structural inertia theory) is that "...individual organizations are subject to strong inertial forces, that is, that they seldom succeeded in making radical changes in strategy and structure in the face of environmental threats," (Hannan and Freeman, 1984:149). The examples of inertial forces in organizations are (Hannan and Freeman, 1977): previous investments in assets; limited information of decision makers; current political equilibrium in the organization; normative "how we do it" agreements; legal and fiscal barriers to entry or exit; problems with obtaining information about new environment; loss of legitimacy after change; difficulty of transferring successful adaptations across multiple organizations.

It is important to highlight two important assumptions of the theory: (i) that the inertia is relative to the environment, i.e., organizations inert in the rapidly changing environment may not be considered as inert in the stable environment, and (ii) that the inertia covers only core organizational competencies (mission, authority structure, technology, and marketing), not peripheral ones.

The logic described above explains the reason why Organizational Ecology offers a macro perspective of organizations as the success (survival) of individual organizations is not determined by their adaptation, but by selection processes of the environment. Hannan and Freeman (1984) argue that as the future environment is uncertain, any adaptation (innovation) does not have guaranteed success – similarly to mutations in genes. Therefore, the environment decides on the ultimate benefits of changes and leads to the spread of successful innovations and the disappearance of unsuccessful ones.

Beside costs of production, every organization brings in additional costs necessary for maintaining and reproducing its structure. Organizations possess two critical competencies whose existence explain why they are formed despite the additional costs they bring. These competencies are (Hannan and Freeman, 1984): (i) reliability – relative certainty in time and quality of product delivery; and (ii) accountability – the ability to document and reconstruct sequences of decisions. Organizational change undermines these competencies and therefore justification of the existence of the organization. It thus leads to risk for the organization of losing support from the environment and of subsequent demise. Additionally, reliability and

accountability both rise with age and size of the organizations, creating liabilities (disadvantages) of newness and smallness for young and small ones.

### **EXTENSIONS AND BOUNDARIES**

Organizational age represents an important factor for the later conceptualization of the theory (Dobrev, van Witteloostuijn and Baum, 2006). In the early stage of the organizational life cycle, liability of newness (described above) and liability of adolescence (exposition of organizational vulnerabilities after organizational initial endowment, i.e., resources invested into the organization when created, is consumed) increase the risk of failure. In the late stage of the life cycle, liabilities of senescence (caused by the growth of bureaucracy) and obsolescence (risk of internal processes being outdated for the environment) also leads to the increased risk of failure.

Another extension of Organizational Ecology is niche theory (Hannan and Freeman, 1977). Inspired by bio-ecology, it distinguishes between two basic types of organizations – specialists occupying a narrow niche and exhibiting a high level of fitness to it, and generalists occupying a wider niche and exhibiting a lower level of fitness. The former type of organizations exploits the environment but is under risk when environmental change comes; the latter type sacrifices part of the exploitation in exchange for a greater level of security against an environmental change. Besides the niche width, to assess competitive processes, it is important to consider both niche overlap and non-overlap with the competitors of the organization.

### **EMPIRICAL APPLICATIONS**

A thorough overview of Organizational Ecology research is offered by Baum and Shipilov (2006). They conclude that while the theory advances some theoretical concepts, only a few of them have been conclusively supported in the empirical research. The empirical application is much limited by the availability of data on populations of firms (popular populations are geographically-delimited samples of newspapers, manufacturers or hotels) – especially on niche theory. These can be the reasons why we do not see much research after also conclusive works of Baum, Dobrev, and Witteloostuijn (2006) and Baum and Shipilov (2006).

The typical empirical application may be Baum and Ingram's (1998) study of the relationship between experience and failure of Manhattan hotels. This paper can be tied to liabilities of age we discussed above.

### **FURTHER READING**

Hannan and Freeman (1977) – original conceptualization of the theory.

Hannan and Freeman (1984) – updated conceptualization of the theory.

Baum, Dobrev, and Witteloostuijn (2006) – edited book on Organizational Ecology and Strategic Management.

Baum and Shipilov (2006) – review of the theory.

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