



# Organizational Ecology and Its Implications on Organizational Ecological Innovation

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## ABSTRACT

This study has the objective to analyze the implications of the organizational ecology on organizational ecological innovation from the assumption that the theoretical and conceptual framework of organizational ecology is positively associates with ecological innovation in organizations. The method employed is the analytical and reflective based on the theoretical and conceptual literature review. It is concluded that major organizational ecological innovations leading to technical changes are pioneered by entrepreneurial organizations shedding light on the positive relationships between the concepts and theories of organizational ecology and the competing mechanisms posited in the results of the organizational innovative ecology.

## KEYWORDS

Ecological Innovation, Organizational Aging, Organizational Ecology, Patents

## INTRODUCTION

The debate on organizational ecology surrounds the mechanisms underlying the effects of age on life mechanisms (Barron, West & Hannan, 1994; Hannan, 1998). There are many debates on the conceptual, theoretical, and methodological issues related to organizational ecology and little efforts to integrate them in an emerging research field (Wholey, & Brittain, 1986). The debates around organizational ecology regarding the mechanisms of age and their effects on life changes (Barron, West, and Hannan, 1994; Hannan, 1998). There are many organizational ecology studies on the effects of organizational age on life and behavior of organizations changes. Organizational ecology is an evolutionary theory that describes structural changes in organizations (Sisaye, 2021)

Organizational ecology develops an interdisciplinary and transdisciplinary framework of sustainable development (Carayannis & Campbell, 2010). Organizations possess information-processing routines and technological trajectories used to facilitate incremental innovation (Tushman and Anderson, 1986; Henderson, 1993). Organizations are generating, developing, and communicating socio-ecological knowledge, norms, sentiments and innovation sensitive for the entrepreneurs and the stakeholders in the scientific and technological inventories and socio-ecological projects that create a macro-effect in social and ecological dimensions. There is a trend of applying organizational ecology in business research (Liu et al., 2022).

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The fundamental differences with the organizational ecological view and the economic approach are the empirical account for organizational survival. There is a link between organizational survival and innovation with an indirect link between innovation and survival. Organizational survival and innovation outcomes are not always transparent. The critical differences between organizational ecological theory and organizational economic approaches are the identification of the relevance of competition and mutualism within and between environmental niches. The indicators for voluntary environmental regulation elements are the environmental and ecological certifications, the environmental information disclosure, and the environmental supervision.

There is an increasing gap between organizational innovative capabilities and the technological frontiers, which is the opportunity for new organizations to align their internal routines with technological development. It needs to be studied the joint effects of age and innovation outcomes in organizational growth and mortality models. Organizational innovation becomes more incremental and process innovation increases in relation to product innovation.

This analysis on organizational ecology and its implications on organizational ecological innovation aims to study the assumption that the theoretical and conceptual framework of organizational ecology is positively associated with ecological innovation in organizations. To achieve this objective, it reviews the conceptual and theoretical elements of the organizational ecology leading to explain some of the main implications in organizational innovation. Finally, some conclusions are presented.

## **THEORETICAL BACKGROUND**

### **Organizational Ecology**

The concept of organizational ecology refers to an organizational field whose interrelations among the organizations compose a system, becoming the object of inquiry. The emergence of organizational ecology is traced from empirical studies in organization theory based on the institution-building tasks, in a complex and interdependent environment (Trist, 1977). In organizational ecology firms compete in standards (David, 1985). The organizational ecological approach incorporated that organizational systems influence the operations of class and economic structures and leads to regulate social and political order. (Sisaye, 2021)

Organizational ecology studies planning, design, and management of physical settings that affect and are affected by expectations, organizational values, and work practices (Becker, 1988). The consistent performance of leadership styles tends to stimulate the ecological innovativeness of the project supported by the inputs of ecological knowledge, information, and competence. Without the injection of knowledge, information and competence, the performance of the leadership style does not stimulate ecological innovativeness (Bossink, 2004). Socio-ecological knowledge communication and insights contribute to changing values and attitudes, trust-building and facilitates conflict resolution to ecosystem management.

Organizational ecology attends to the consequences of aging for organizational functioning outcomes although there is not consensus if the effects of aging are positive or negative on the organizational functioning (Hannan, 1998). The organizational ecology aging theories distinguish the competitive perspectives by the liability of newness (Stinchcombe, 1965; Hannan and Freeman, 1984) and the perspective of liability of senescence (Barron, West, and Hannan, 1994).

Organizational ecology combines the influences of inertia, imprinting, and environmental changes to render obsolete the core technologies of old aging organizations (Barron, West, and Hannan, 1994; Aldrich and Auster, 1986; Ranger-Moore, 1997). Time passage in organizations leads to accumulation of knowledge and the increasing of organizational competence, paralleling the theoretical perspectives of aging in organizational ecology: liability of newness (Stinchcombe, 1965; Hannan & Freeman, 1984) and the liability of senescence (Barron, West, & Hannan 1994). Organizational ecology infers the effects of organizational age in models failing to control the organizational size with a correlation between age and size (Barron, Hannan, and West 1994).

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