

The Evolution and Change of Industry Ecology: System Dynamics Approach

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ABSTRACT

The perspective of industry ecology has become so popular for many industrial research and practical field. The concept of co-competition for many firms in intra-organization, also become more and more in today's unclear industry boundary. It can be imagined as the mutualism of species in ecology system. Therefore, many researchers and experts study the density-dependence, selection & adoption, organizational variety. These concepts also been integrated to some core concepts of resources dependence, organizational inertia and institution theory since 1970. Recent research has found that density (the number of organizations in a population) affects rates of organizational founding and mortality. And the idea of carrying capacity provide as an important clue. This research expects to concentrate on the carrying capacity effects of density, how density at particular historical times affects the vital rates at those times. We seek to broaden the issues by proposing that carrying capacity might also have dynamic change on vital rates, founding rates and mortality rates. We pursue the issue of carrying capacity for two reasons. First, define the industrial carrying capacity, because of recent theory and research in organizational ecology can not account it. Second, develop and build a generic model of business ecology.

Keywords : Organizational ecology, business ecology, carrying capacity, system dynamics.

Table of Contents

簽名頁 授權書 iii 中文摘要 v 英文摘要 vi 誌謝 vii 目錄 viii 圖目錄 xi 表目錄 xiv 1. 緒論 1 1.1 研究背景及動機 1 1.2 研究目的 4 1.3 研究方法 5 1.4 研究設計 5 1.5 研究對象： 6 2. 文獻探討 8 2.1 資源生態學 8 2.2 資源依賴理論 12 2.3 制度理論 14 2.4 組織生態學 17 2.5 產業群聚 21 3. 生態與簡單模型之系統動力學概念 25 3.1 研究構架 25 3.2 系統基模及系統思考圖 26 3-3 執行步驟 29 4. 筆記型電腦產業分析 31 4.1 筆記型電腦產業之沿革 31 4.2 台灣筆記型產業 35 4.2.1 台灣筆記型產業之發展 35 4.2.2 台灣筆記型產業之現況 39 4.3 大陸筆記型產業 44 4.3.1 台商NB廠於大陸發展情況 44 4.3.2 筆記型電腦成本 45 4.3.3 台灣筆記型電腦產業兩岸零組件供應現況 47 4.3.3 台灣NB業者外移大陸之原因 50 4.4 NB系統廠之轉投資 57 4.5 小結 58 5. 模型建構 60 5.1 台灣NB產業生產次系統 60 5.2 大陸NB產業生產次系統 62 5.3 兩地產業競爭次系統 64 5.4 吸引力次系統 68 5.5 市場擴散次系統 74 6. 模式模擬與情境測試 78 6.1 模式的有效性 78 6.2 模擬結果 79 6.3 情境模擬 80 6.3.1 成本因素模擬 80 6.3.2 租稅優惠因素模擬 82 6.3.3 群聚因素模擬 83 6.3.4 情境模擬小結 84 7. 結論與建議 85 7.1 研究發現與貢獻 85 7.2 管理上的引申應用 86 7.3 研究限制與未來建議 86 參考文獻 87 附錄一：總模式模型 94 附錄二：總模式之方程式 95 附錄三：變數說明 101

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