在現今大環境的驅使下,消費意識型態有重大的改變,消費者期望透 過委託代理行為,驅使企業從事綠色技術創新,間接達成綠色消費行為, 藉此達成環境保護、永續發展,為社會盡一份力。本研究透過委託代理理 論(principal-agent theory)觀察,顧客所在之體制、環境對供應商從事綠色技 術創新之影響以及顧客議價能力對供應商從事綠色技術創新之影響。本研 究以我國製造業領域的 207 家公開發行之上市櫃公司作為研究對象,主要 資料來源包括這些公司的公開資訊、年報與技術專利資料。研究以年為時 間單位,從2005年到2020年搜集了相關的資料。將市場體制和顧客因素 對綠色技術創新的影響進行變數編譯,建立了一個追蹤資料庫,以進行實 證研究。顧客所在的市場體制因子對於進入該市場的廠商的綠色創新行為 有顯著影響。高透明度的市場使得供應商的綠色行為更易於被顧客和監督 組織觀察和評估,從而促使廠商更加積極地採取綠色創新以符合市場預期。 同時,嚴格的環保法規和政策也能對供應商形成強制性約束,迫使其進行 綠色技術創新以符合法規要求。此外,市場中顧客議價能力越強,供應商 為了維持競爭優勢和滿足顧客的綠色消費需求,往往會投入更多資源在綠 色創新。綜合上述,本研究認為企業應該根據市場環境和消費者需求,制 定適合的綠色創新策略,藉以提升競爭力,並實現可持續發展目標。

關鍵詞:委託代理理論、綠色技術創新、綠色消費行為、製造業

ABSTRACT

In light of the current global environment, consumer attitudes have changed significantly. Consumers expect to influence suppliers to develop green technology and promote green consumption through their buying power. This study uses the principal-agent theory to investigate how the institutional environment and consumer influence impact firms' green technological innovation. The research focuses on 207 listed Taiwanese manufacturing firms and analyzes data from public information, annual reports, and patent filings from 2005 to 2020. A panel database was created, incorporating market institutional and consumer-related variables that affect green technological innovation. The findings reveal that market institutional factors significantly influence green innovation behaviors. Greater market transparency allows consumers and regulators to easily assess suppliers' green practices, prompting firms to adopt green innovations to meet market expectations. Stringent environmental regulations and policies also push suppliers to engage in green technological innovation to comply with legal standards. Moreover, as consumer bargaining power grows, suppliers are motivated to invest more in green innovation to stay competitive and meet consumer demand for green products. In conclusion, this study suggests that firms should develop appropriate green innovation strategies to enhance their competitiveness and achieve sustainable development goals in response to market conditions and consumer demands.

Keywords: Principal-Agent Theory, Green Technological Innovation, Green Consumption, and Manufacturing Sector