

# **Influence of corporate governance on technological innovation: evidence from Indian pharmaceutical industry**

## **Abstract**

Innovation is considered to be a critical requirement for the growth and profitability of organizations. This has led to a lot of interest in academicians and practitioners to identify different determinants of innovation. Researchers have identified corporate governance structure and managerial background as one of the important determinants. In this dissertation, we look at how characteristics of three components of corporate governance – owners, board and the CEO influence technological innovation. The study is carried out in the context of Indian pharmaceutical industry. The Indian Pharmaceutical Industry provides an interesting context for research, compared to prior studies in developed economies, both for the unique corporate governance system of India and for the institutional structures and regulatory changes that have implications for innovation. The dissertation comprises of three essays. In the first essay, we study how family involvement and control in ownership, board of directors and management influence R&D investments and R&D outcome (patents). We also study the influence of business group affiliation. Prior management literature drawing mainly from agency theory and stewardship theory is ambiguous on the influence of family ownership and control on innovation. We empirically find that in Indian pharmaceutical industry, family involvement has a positive influence on firm's R&D investments. We attribute this to high degree of technological opportunities present in the industry. In the second essay, we study how board of director characteristics like independent director ratio, board size and number of interlocks influence conversion of financial slack into R&D. Theoretical arguments drawn from agency theory and resource dependence view, corresponding to monitoring and resource provisioning roles of the board, can sometimes result in conflicting predictions on the influence of board characteristics on financial slack - R&D investment relationship. Our empirical analysis is broadly in line with the predictions of the resource dependence theory which supports the resource provisioning role of the board. Finally in the third essay, we study the influence of CEO demographic characteristics on R&D investments. Drawing from upper echelon theory, we test the influence of CEO's age, tenure on board, educational background and functional background on R&D. We further look at the moderating role of family ownership and control on CEO characteristics – R&D investment relationship. Empirically, we find that some CEO characteristics like qualification and background in R&D have a positive influence on firm's R&D investments. However, we do not find significant reinforcing influence of family ownership and control on CEO characteristics –R&D investment relationship.