Ownership Concentration and Technology Innovation Activity*

Seokchin Kim** · Kyungin Park***

<Abstract>

This study examines how ownership concentration affects technology innovation activity (TIA) of Korean firms listed in KOSPI and KOSDAQ markets. Our principal findings are as follows. First, the ownership concentration has a positive effect on TIA. Both business age and leverage affect negatively on TIA, while growth opportunity does positively. Second, a quantile regression analysis shows that the effect of ownership concentration is stronger at higher quantiles of R&D expenditures. Third, ownership concentration presents a greater impact on TIA for venture-innobiz firms than for non-venture-innobiz ones. Fourth, we find that the coefficient of ownership concentration is much higher for high R&D expenditure group than low R&D expenditure group.

TIA is intrinsically a risky project in which its performance is realized in a long term. Thus, firms with dispersed ownership have great difficulties when one executes TIA with a high risk. In a nutshell, it may be said that ownership concentration significantly contributes to an increase in TIA of Korean listed firms. This effect of ownership concentration on TIA is stronger in high R&D expenditure firms.

Keywords: Technology Innovation Activity, Ownership Concentration, R&D Expenditure, Quantile Regression Analysis

* This research was supported by Kyungpook National University Research Fund, 2016.

We appreciate referees’ valuable comments and are, of course, responsible for any remaining errors.

** Professor, School of Business Administration, Kyungpook National University, E-mail: sckim@knu.ac.kr

*** Corresponding Author, BK21 Plus Research Professor, School of Business Administration, Kyungpook National University, E-mail: inpark09@knu.ac.kr
I. Introduction

Firms are required to engage in technology innovation activity (TIA, hereafter) in a singular form for sustainable survival and development (Schumpeter, 1943). However, TIA is, per se, a risky project in which its performance is derived in a long term. To conduct the risky project, a strong leadership with decision-making power is crucial. These could be achieved via ownership concentration, one of important structural aspects. Thus, our study aims to study the relationship between ownership concentration and TIA of firms. In other words, this study investigates whether an increase in ownership concentration contributes to TIA of firms.

The relationship between ownership concentration and TIA has largely been studied in two strands. First, given that ownership concentration is high, large shareholders prefer TIA for larger profitability over long horizon. Several studies suggest that the relationship between ownership concentration and research and development (R&D, hereafter) investment is positive (Francis and Smith, 1995; Durand and Vargas, 2003; Lee and O’Neill, 2003; Lee and Kim, 2003; Shin and Kim, 2010). Specifically, Francis and Smith (1995) address that high ownership concentration is associated with an increase in R&D expenditure of US firms. According to Durand and Vargas (2003) and Lee and O’Neill (2003), TIA increases via a reduction on information asymmetry between large shareholders and managers. Large shareholders are usually excellent information collectors, and provided with high quality information. This mitigates the information asymmetry between large shareholders and managers.

On the contrary, ownership concentration may make a negative impact on TIA of firms because large shareholders induce a reckless management of firms and pursue a short term profit through slashing manufacturing costs, speculative investments, or financial treatments. As a result, large shareholders discourage firm managers from investing in risky projects. Shortly, high ownership concentration may cause large shareholders to further pursue their private benefits and thus lead to a reduction in TIA of firms which is uncertain and requires constant investments. According to Bebchuk et al. (2000), high ownership concentration decreases TIA of firms as large shareholders may make more profits through a pursuit of private benefits rather than an investment for TIA. Along a similar vein, Di Vito et al. (2010) using Canadian manufacturing firms also address