R&D investments and firm performance: An Empirical Investigation of the High Technology Sector (Software and Hardware) in the E.U.

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Abstract

Purpose – The purpose of this paper is to examine the relationship among research and development expenses (R&D), market value and firm performance. Additionally, what is also questioned is, whether the relationship between R&D and market value of the firm is linear.

Design/methodology/approach – Data analysis was realized through panel data analysis and the feasible generalized square method (FGLS), using data from the financial statements of 39 European firms, which activate in the Software and Hardware Computer sector, for the period 2006-2010. Following prior studies, our dependent variables are the Market Value and Annual Return on Assets (ROA).

Findings – Results indicate a positive correlation between R&D investment and firm performance in the marketplace. In contrast, the above does not apply in the case of R&D and firm performance, since due to time lag, the relationship with the ROA results in being negative. Furthermore, a non-linear relationship between R&D and market value of the firm is verified.

Research limitations/implications – There are limitations because many firms either they do not accurately calculate or they do not record their R&D investments in their financial statements.

Originality/value – The verification of the existence of a non-linear relationship between R&D investments and market value of firms, adds an innovative character in this research.

Keywords – Research and development (R&D), firm performance, market value, non-linear, time-lag.

JEL classification – M40, O30, O32

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