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內部資金市場效率性、盈餘品質與專利權投資策略  
Internal Capital Market Efficiency, Earnings Quality, and Patent Investment  
Strategies

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Abstract

Two essays of my dissertation are dealing with the role of internal capital market efficiency, in particular focusing on its benefits from eliminating earnings management and increasing patent investments. The first essay investigates whether internal capital market efficiency affects earnings management of diversified firms. We argue that top managers in diversified firms with efficiency internal capital market efficiency have less need for external financing and earnings management, because efficient internal capital market can against external capital market inefficiency and increase firm performance. By examining U.S. listing diversified firms over 1997-2009, we find that diversified firms with efficient internal capital market have low earnings management. We contribute literatures on following aspects. First, previous literatures only document that earnings management reduces investment efficiency. However, we concern that investment efficiency will affect earnings quality as well. Our arguments and findings indicate that when internal capital market efficiency of diversified firms will reduce the need of earnings management. Second, this paper tries to contribute literatures on the incentives of earnings management. Third, this paper tries to demonstrate that if internal capital market efficiency allows top managers efficient allocate resource to profitable segments, diversification will not be a value-decreasing strategy.

The second essay examines how internal capital market efficiency affects patent investment strategies and its economic consequences. Since patent investments have lack of trading market and high uncertainty of future cash flow, firms have difficulty to finance these patent investments from external capital market. One of advantage of diversification is to have internal capital market to against external financing constraint. We find that diversified firms will invest more patenting activities when they have more internal capital market efficiency. Furthermore, different patenting investment strategies need different ways of financing resources. We argue that in-house patenting activities can help diversified firms to take competitive advantage but also need to be consistently invested to avoid adjustment cost. Internal capital market efficiency helps top managers of diversified firms to allocate resources to consistently invest in-house

patenting activities. Our findings support this argument. Since diversified firms with in-house patenting activities will have high idiosyncratic risk and low systematic risk, diversified firms with more in-house patenting activities will have higher market value. We find that the synergy of internal capital market efficiency and in-house patenting activities will positively affect the value of diversified firms. This paper contributes the literatures by filling the gap on understanding how resources allocation efficiency differently affects patenting strategies and the economic consequences.

Key words : Internal Capital Market Efficiency; Diversification; Earnings Management; Patent Purchasing; Research and Development

## 中文摘要

本研究旨在探討內部資金市場效率性對盈餘品質與專利權投資策略的影響。在第一篇文章中主要是探討是否內部資金市場效率性會減少多角化企業盈餘管理的行為。當多角化企業的內部資金市場是有效率下，可以減少對外融資的需求以避免外部資金市場的無效率性。同時，有效率的內部資金市場可以提昇多角化企業的經營績效。因此，當多角化企業存在著有效率的內部資金市場，該企業之高階經理人將會減少其對外融資以及盈餘管理的需要性。本文以 1997 年至 2009 年間之美國上市公司為樣本，發現多角化企業內部資金市場之效率性會降低多角化企業盈餘管理的程度。本文研究貢獻有三。第一，過去文獻僅認為盈餘品質會影響企業投資的效率性。然而，企業投資的效率性亦會影響盈餘品質。第二，本研究結果，可以作為探討企業盈餘管理動機時的參考文獻。第三，本研究試圖指出多角化策略對股東而言並非是價值折損的策略，特別是當內部資金市場在有效率下，可以提昇多角化企業的經營績效。

本研究第二篇文章旨在探討多角化企業內部資金市場效率性如何影響企業專利權投資策略和經濟後果。因為專利權的未來現金流量的不確定性高，且缺乏公開市場的價值，企業難以透過外部資金市場來融資企業的專利權投資。但由於多角化企業可以創造內部資金市場，因此可以利用內部資金市場來抵抗外部資金市場的融資限制。本研究的結果亦指出，當多角化企業擁有有效率的內部資金市場，其專利權投資的比例越高。再者，由於不同的專利權投資對資金需求不一。投資於自有的研究發展(In-house patenting)計畫必須要有穩定的資金投入以避免終止該研究發展計畫所產生的高額調整成本(Adjustment costs)。反之，當企業外購專利權時，企業將可以避免該成本。本研究發現，當多角化企業的內部資金市場越有效率時，企業投注的自行研究發展費用越高。本研究亦發現，當多角化企業擁有有效率的內部資金市場以及投資自行研究發展費用越高時，該多角化企業的市場價值越高。由於當多角化企業擁有自行研究發展費用越高時，企業所面臨的企業特有風險(Idiosyncratic risk)越高，系統性風險(Systematic risk)越低。因此，企業的低系統性風險將降低企業的資金成本率，進而提高多角化企業的市場價值。本研究的貢獻在於補足過去文獻僅以觀察自有的研究發展計畫與資金來源的關係，而缺乏探討企業全面性的專利權投資策略與多角化企業內部資金市場效率性的關係。

關鍵字：內部資金市場效率性；多角化；盈餘管理；專利權投資；研究發展費用