

# An empirical study on the determinants of capital structure in international intra-firm cooperation

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## ABSTRACT

Enterprises innovation is necessary to change now. Many international large companies all approach how to change that can sustainable development. In this study, explore innovative industries in international intra-firm of capital structure variables decision. The sample period from 2004 to 2009 amount to six year by IT companies in the annual information and delete information deficiencies and shortcomings of the effective sample after a total of 117 companies which sample selection standard listed electronics company in Taiwan investment in mainland China subsidiary that accounted for more than 20% of profits as the benchmark. To use of the static trade-off theoretical model and the pecking order theory model to test the company's debt ratio. The empirical results obtained conclusions are: the static trade-off theoretical model indicates that variables in regression analysis showed that the adjusted R square value of the debt ratio of fit 46.2% which explain the low degree. In contrast to the pecking order theory model regression analysis showed the adjusted R square value of 98.4% of the model to explain the ability well. Therefore find out that the pecking order theory may be more suitable for the static trade-off theory to find the company's optimal capital structure.

Keywords : innovation、intra-firm cooperation、pecking order、static trade-off

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## REFERENCES

- Allen, D. E., & Mizuno, H. (1989). The determinants of corporate capital Structure: Japanese Evidence. *Applied Economics*, 21(5), 569-585.
- Afuah, A. (1999). *Innovation management: Strategies, implemen- tation and profits*. Oxford: Oxford University Press.
- Barton, S. L., & Gordon, P. L. (1988). Corporate strategy an capital structure. *Strategic Management Journal*, 9(6), 623-632.
- Baskin, J. (1989). An empirical investigation of the pecking order hypothesis. *Financial Management*, 18(1), 26-35.
- Bayless, M. E., & David, J. D. (1994). Securities offerings and capital structure theory. *Journal of Business Finance and Accounting* , 21(1), 77-91.
- Booth, L. V., Demirfuc-Kunt, A., & Maksimovic, V. (2001). Capital structures in developing countries. *Journal of finance*, 56(1), 87-130.
- Bradley, M., Jarrell, G., & Kim, E. H. (1984). On the existence of an optimal capital structure: Theory and evidence. *Journal of Finance*, 39(3), 857-880.
- Brealey, & Myers (1984). *Principles of corporate finance*. New York: McGraw Hill.
- Burgman, T. A. (1996). An empirical examination of multinational corporate capital structure. *Journal of International Business Studies*, 27(3), 553-670.
- Chua, J. H., & Woodward, R. S., (1993). The pecking order hypothesis and capital structures of private companies. *Financial Management*, 22(1), 87-109.
- Coase, R. H. (1937). The nature of the firm. *Economics*, 4(16), 386-405.
- Deangelo, H., & Masulis, R. (1980). Optimal capital structure under corporate and personal taxation. *Journal of Finance Economics*, 8(1), 3-29
- Donaldson, G. (1961). Corporate debt capacity: A study of corporate debt Policy and the determination of corporate debt capacity. Harvard Graduate School of Business Administraion.
- Drucker, P. (1988). *Innovation and entrepreneurship: practice and principles*. New York: Harper & Row Publishers, Inc.
- Ferri, M. G., & Jones, W. H. (1979). Determinants of financial structure: A new methodological approach. *Journal of Finance*, 34(3), 631-644.
- Gomes-Casseres, B. (1990). Firm ownership preferences and host government restrictions: an integrated approach. *Journal of International Business Studies*, 21(1), 1-22.
- Harrigan, K. R. (1985). Vertical integration and corporate strategy. *Academy of Management Journal*, 28(2), 397-425.
- Hennart, J. F. (1988). A Transaction Journal, 9(2), 361-374.
- Hennart, J. (1991). The transaction costs theory of joint ventures: an empirical study of japanses subsidiaries in the united states. *Management Science* , 37(4), 483-497.
- Higgins, J. M. (1995). The core competence: innovation. *Planning Review*, 23(6), 32-35.
- McGourty, J., Tarshis, L. S., & Dominick, P. (1996). Managing innovation: lessons from world class organizations. *International Journal of Technology Management*. 11(3/4), 354-368.
- Hill, J. W., & Jones, G. (1995). *Strategic management theory: An integrated approach* (3rd ed.). Boston:

Houghton-Mifflin. Homaifar, G., Zietz, J., & Benkato, O. (1994). An empirical model of capital structure: Some new evidence. *Journal of Business Finance & Accounting*, 21(1), 1-14.

Hovakimian, A., Opler, T., & Titman, S. (2001). The Debt-equity Choice. *Journal of Financial and Quantitative Analysis*, 36(1), 1-24.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency cost, and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.

Jensen, M. C. (1986). The agency costs of free cash flow: corporate finance and takeovers. *American Economic Review*, 76(2), 323-329.

Jung, K., Kim, Y. C., & Stulz, R. M. (1996). Timing, investment opportunities, managerial discretion, and the security issue decision. *Journal of Financial Economics*, 42(2), 159-185.

Kester, C. W. (1986). Capital and ownership structure: A comparison of United States and Japanese manufacturing corporations. *Financial Management*, 15(1), 16.

Kim, E. H. (1978). A mean-variance theory of optimal capital structure and corporate debt capacity. *Journal of Finance*, 33(1), 45-63.

Killing, J. P. (1983). Strategies for joint venture success. *Harvard Business Review*, 61(1), 120-127.

Kim, W. S., & Sorensen, E. H. (1986). Evidence on the impact of the agency costs of debt on corporate debt policy. *Journal of Financial and Quantitative Analysis*, 21(2), 131-144.

Klein, D., & Belt, B. (1993). Sustainable growth and choice of financing: A test of the pecking order hypothesis. *Review of Financial Economics*, 3(1), 141-154.

Kogut, B., & Sing, H. (1988). The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 19(3), 411-432.

Leary, M. T., & Roberts, M. R. (2005). Do firms rebalance their capital structures? *Journal of finance*, 60(6), 2575-2619.

Lee, K. C., Chuck, C. Y., & Kwok. (1988). Multinational corporations vs. domestic corporations: International environmental factors and determinants of capital structure. *Journal of International Business Studies*, 19(2), 195-217.

Long, M., & Malitz, I. (1985). Investment patterns and financial leverage. In B. Friedman (ed.), *corporate capital structure in the united states* (pp. 325-348), Chicago, University of Chicago Press.

Marsh, P. (1982). The Choice between equity and debt: an empirical study. *Journal of Finance*, 37(1), 121-144.

Miller, M. (1977). Debt and taxes. *Journal of Finance*, 32(2), 261-275.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporate finance, and the theory of investment. *American Economic Review*, 48(3), 261-297.

Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: A correction. *American Economic Review*, 53(3), 433-443.

Myers, S. (1974). Interactions of corporate financing and investment decisions-implications for capital budgeting. *Journal of Finance*, 29(1), 1-25.

Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, 5(2), 147-75.

Myers, S. C. (1984). The capital structure puzzle. *Journal of Finance*, 39(3), 575-592.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Economics*, 13(2), 187-221.

Myers, S. C. (2001). Capital structure. *Journal of Economic Perspectives*, 15(2), 81-102.

Ozkan, A. (2001). Determinants of capital structure and adjustment to long run target: Evidence from UK company panel data. *Journal of Business Finance & Accounting*, 28(1-2), 175-198.

Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *Journal of Finance*, 50(5), 1421-1460.

Ross, S. (1977). The determination of financial structure: The incentive signaling approach. *Bell Journal of Economics*, 8(1), 23-40.

Scott, J. (1977). Bankruptcy, Secured Debt, and Optimal Capital Structure. *Journal of Finance*, 32(1), 1-20.

Smith, Jr., & Clifford, W. (1977). Alternative methods for raising capital rights versus underwritten offerings. *Journal of Financial Economics*, 5(3), 117-161.

Smith, Jr., & Clifford, W. (1986). Investment banking and the capital acquisition process. *Journal of Financial Economics*, 15(1-2), 3-29.

Titman, S. (1984). The effect of capital structure on a firm ' s liquidation decision. *Journal of Financial Economics*, 13(1), 137-151.

Titman, S., & Wessels, R. (1988). The determinants of capital structure choice. *Journal of Finance*, 43(1), 1-21.

Warner, D., & Jerold, B. (1977). Bankruptcy costs : some evidence. *Journal of Finance* , 32(2), 337-347.

Williamson, O. E. (1975). *Markets and hierarchies: analysis and antitrust Implications*. New York: Macmillan, 286.

Williamson, O. E. (1988). Corporate finance and corporate governance. *Journal of Finance*, 43(3), 567-591.

Wruck, K. (1990). Financial distress: reorganization and organization efficiency. *Journal of Financial Economics*, 27(2), 425.

Yu, C. M. J., & Tang, M. J. (1992). International joint ventures: theoretical considerations. *Managerial and Decision Economics*, 13(4), 331-342.