

# The Impact Analysis of Patent Litigation for Mobile Service Interface Technology via Supply Chains in Taiwan

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**Abstract.** As the majority of Apple's supply chain is based in Taiwan, this study analyzes the effect of patent litigation for pervasive computing vehicles on Taiwanese electronic stock performance toward Mobile service interface technology. Apple's Mobile service interface patent on the Taiwanese electronics companies in Apple's iPhone 4 supply chain. Furthermore, it is expected that such a patent would not only affect stocks associated with Apple but also stocks associated with large competitors. This study further builds upon previous literature that utilized Event Study Methodology (ESM) for the valuation of innovation.

**Keywords:** patent litigation, pervasive computing vehicles, mobile service interface, event study methodology, supply chain

## References

- [1] A. Bera, E. Bubnys, H. Park, "Conditional Heteroscedasticity in the Market Model and Efficient Estimates of Betas," *The Financial Review*, Vol. 23, No. 2, pp. 201-214, 1998.
- [2] T. Bollerslev, "Generalized Autoregressive Conditional Heteroscedasticity," *Journal of Econometrics*, Vol. 31, pp. 307-327, 1986.
- [3] T. Bollerslev, R. Chou, K. Kroner, "ARCH Modeling in Finance: A Review of the Theory and Empirical Evidence," *Journal of Econometrics*, Vol. 52, pp. 5-59, 1992.
- [4] P. K. Chaney, T. M. Devinney, R. S. Winer, "The Impact of New Product Introductions on the Market Value of Firms," *Journal of Business*, Vol. 64, No. 4, pp. 573-610, 1991.
- [5] S-S. Chen, K. W. Ho, K. H. Ik, "The Wealth Effect of New Product Introductions on Industry Rivals," *Journal of Business*, Vol. 78, pp. 969-996, 2005.
- [6] K. Girotra, C. Terwiesch, K.T. Ulrich (2007) "Valuing R&D Projects in a Portfolio: Evidence from the Pharmaceutical Industry," *Management Science*, Vol. 53, pp. 1452-1466, 2007.
- [7] D. Cutler and L. Summers, "The Cost of Conflicts Resolution and Financial Distress: Evidence from the Texaco-Pennzoil Litigation," *RAND Journal of Economics*, Vol. 37, pp. 43-57, 1988.
- [8] Timo Korkeamäki and Tuomas Takalo, *Valuation of Innovation: The Case of iPhone*, MPRA Paper 28042, University Library of Munich, Germany, 2010.
- [9] Ashish Sood and Gerard J. Tellis, "Do Innovations Really Payoff? Total Stock Market Returns to Innovation," *Marketing Science*, Vol. 28, No. 3, pp. 442-456, 2009.

- [10] Y.H. Wang, W.T. Chiu, J. C. Chen, S. T. Yu, H. Lin, "Announcement Effect of Patent Application: Evidence from Taiwan Listed Electronics Industries," in *Proceedings of Business and Information*, Vol. 6, 2009.