Effects of Accounting Standards and National Institutional Factors on the Value Relevance of R&D Expenses

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ABSTRACT

There is a trend toward global harmonization of accounting standards between International Financial Reporting Standards (IFRS) and local Generally Accepted Accounting Principles (GAAP). However, the benefits and costs of harmonization are highly correlated with national institutional factors (Hail, Leuz, and Wysocki 2009). In this paper, we examine the effects of accounting standards and financial reporting environment on the usefulness of R&D reporting. Accounting information has different levels of relevance and reliability under different accounting treatments of R&D (Healy, Myers, and Howe 2002). Further, financial statement preparers can convey different messages to stock markets regarding the nature and economic substance of R&D activities through different accounting policies (Oswald and Zarowin 2007). Prior studies also indicate that institutional factors play a role in financial reporting (e.g., Ball, Kothari, and Robin 2000). Therefore, we expect that value relevance of R&D expenses varies under different accounting treatments and with respect to different institutional factors.

To test our predictions, we draw samples over the period of 1996 to 2004 from twelve countries: Australia, Canada, Finland, France, Germany, Japan, Netherlands, Norway, Sweden, Switzerland, the United Kingdom, and the United States. Our results do not support the prediction that the required or allowed capitalization rule provides additional information of the nature and the economic substance of R&D activities. However, the results do show that the valuation of R&D expenses by the market varies negatively with the national earnings management score and positively with the strength of enforcement of insider trading laws in each country. The results are robust to different model specifications.
This study makes three contributions. The first contribution is related to adoption of international accounting standards. Our results show that the national level of earnings management score and the enforcement of insider trading laws play significant roles in how markets value expensed R&D expenditures. This implies that factors other than accounting standards influence the usefulness of accounting numbers. This finding is consistent with that of the study by Ball, Robin and Wu (2003), which highlights the importance of institutional arrangements in shaping the outcomes of financial reporting. Our study provides timely implications as countries around the world are making a joint effort towards generating a single set of high quality financial reporting standards. Second, we contribute to the literature on international differences in value relevance of accounting numbers. Existing literature in international accounting mostly focuses on earnings (e.g., Hung 2001; DeFond, Hung, and Trezevant 2007; Hung and Subramanyam 2007). DeFond et al. (2007) suggest that since aggregate earnings numbers embody differences in accounting treatments for many items, such as intangible assets, business combinations, and fixed asset revaluation, it is difficult to attribute the differences in the value relevance of the aggregate earnings number to a particular accounting standard. This study adds to the literature by focusing on one specific accounting issue: accounting treatment of R&D expenditures. Third, we contribute to accounting standards setting for R&D expenditures. Most existing studies on R&D accounting only include firms that expense R&D expenditures, with a few exceptions such as Green, Stark, and Thomas (1996), Aboody and Lev (1998), and Oswald and Zarowin (2007). This study takes a different approach. Before the widespread adoption of IFRS in Europe in 2005, different countries had different accounting treatments for R&D expenditures. The variety of accounting treatments for R&D
across countries serves as a natural environment for researchers to examine the effect of different accounting treatments on the value relevance of R&D. We find no significant impact of accounting treatments on the value relevance of R&D expenses. The results suggest that either capitalization or expensing of R&D could be acceptable accounting treatments from the value relevance perspective.