

Nonlinearity in the relationship between intellectual capital and corporate performance: Evidence from Vietnamese listed companies

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ABSTRACT

Purpose: Consensus on how intellectual capital (IC) affects corporate performance is limited because of various measurement models of IC and corporate performance. This study thus aims to further the debate on the relationship between IC and corporate performance from the perspectives of nonlinearity, the capital values of IC and the use of a holistic measure of corporate performance. **Design/methodology/approach:** Using 1,395 firm-year observations derived from Vietnamese listed companies from 2010 to 2018, this study focuses on (1) presenting an IC model benchmarked on value-creating expenses; (2) using a directional distance function (DDF)-based stochastic nonparametric envelopment of data (StoNED) framework to scrutinize multiple performance indicators and the capital values of people, structures and relationships simultaneously; and (3) adopting firm-year cluster-robust regressions to analyze the nonlinear association between IC and corporate performance empirically with an appropriate U test. **Findings:** Results suggest that human capital (HC), structural capital (SC) and relational capital (RC) are the main contributors of high corporate efficiency, whereas only HC and RC contribute to high corporate profitability. These results are absent when this study employs the conventional data envelopment analysis (DEA), which is also a multidimensional framework, as the dependent variable. More importantly, IC and its components can improve corporate performance, namely, both corporate efficiency and corporate profitability up to a critical point, after which the effects would drop. **Practical implications:** Overall, this study highlights not only the need to invest in IC but also its associated costs. That is, policymakers also need to note the marginal cost of investing in IC, which may in the end outweigh the benefits from IC. **Originality/value:** This study extends IC-related studies by investigating the nonlinear relationship between IC and corporate performance. Moreover, the value of this study also lies in the multidimensional DDF-based StoNED framework.

KEYWORDS

Capital values; Corporate efficiency; Corporate profitability; Intellectual capital; Nonlinearity; StoNED

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