

How does Information Technology affect Performance and Growth of European and American Enterprises? A Longitudinal Value Chain Analysis

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Abstract.

This paper contributes to the literature by verifying the application of Value Chain framework in the field of IT Business Value and through regression analysis. It investigates the impact of IT and e-business on enterprise performance and growth through different activity domains of the firm. We further compare European and American enterprises with respect to the effective channels through which IT contributes to firm-level performance and growth. Six performance indicators are used: profitability and growth of turnover, market share, profit, employment, and productivity. The Value Chain framework is used to distinguish between different activity domains of the firm, which can act as mediators in the IT-performance relationship. Five key domains are identified: product, market, procurement, innovation, and infrastructure. For the empirical part, we use a pooled panel of 30,954 European and American firms, with data covering the period 2003-2007 for 30 countries. Our regression results show that IT contributes to turnover, employment, and market share growth through all the five major domains except infrastructure. Productivity growth is positively influenced through all the domains. Profitability and profit growth are not significantly affected through any of the domains except innovation. Among the different domains, innovation and procurement are found to be the most important contribution channels of IT. We also found that, except in case of market share growth, support activities enabled or facilitated by IT are more influential to firm performance than primary activities. Finally, we found that product interrelations is the major domain which can explain the Atlantic Divide between EU and the US, with Americans using IT much better than Europeans in their inbound logistics and operations. Apart from the product domain, depending on the performance measure of interest, sometimes Americans are shown to be more effective users of IT and sometimes their European counterparts.