

## **The Motivation to Invest in Intangibles: Conceptual Model**

**Eva Erjavec**

University of Ljubljana, School of Economics and Business, Slovenia  
*eva.erjavec@ef.uni-lj.si*

**Tjaša Redek**

University of Ljubljana, School of Economics and Business, Slovenia  
*tjasa.redek@ef.uni-lj.si*

Intangible capital, which comprises according to the well-established Corrado et al. (2009) (1) computerized information, (2) innovative capital and (3) economic competencies, contributes according to research even up to third of total productivity growth. The factors, that the intangible capital comprises, have long been neglected in research due to the inability to capture and measure them correctly. However, recent research shows that not only are they important in developed economies, where growth is knowledge and innovation driven, but are just as important in catch-up economies, although the nature and dynamics might differ, similarly as Forbes and Wield (Forbes and Wield 2000) suggested for innovation.

While the literature offers significant evidence of the impact of intangible capital on productivity growth in both developed and developing countries (C. Corrado, Haskel, and Jona-Lasinio 2016; C. Corrado, Hulten, and Sichel 2009b; Carol Corrado et al. 2016; Irina 2018; Ji 2018; Jona-Lasinio and Meliciani 2018; Li and Wu 2018; Lopez and Olivella 2018; Piekkola 2011, 2018; Roth and Thum 2013; Tahat, Ahmed, and Alhadab 2018; Vrh 2018; Yang and Shi 2018), the literature is focusing primarily on the estimation of the actual impact on productivity, firm and sector performance, also on financial markets and other development indicators.

However, the economic literature is providing very scarce evidence on the actual motivators or determinants of intangible investment in firms or in other words there is little discussion or even evidence of “comprehensive governance of intangibles” at firm level. While there is partial discussion available in the literature, two major gaps exist: (1) the definition of intangibles does not follow the well-established Corrado et al. (2006) definition, which calls for. Amuch broader concept than the definition of intangibles in the past (prevailing in accounting literature and management), (2) no comprehensive theoretical model of determinants of investment into these intangibles or intangibles’ governance exists. While some preliminary attempts have been made (Prašnikar 2010; Sánchez, Chaminade, and Olea 2000), these also suffer aforementioned problems and the study of motivations and link to intangible investment is weak.

The purpose of the paper is to conceptualize a model of investment into intangible capital at firm level following the approach by (Sánchez, Chaminade, and Olea 2000) starting from firm strategic development goals, which call for different investments, which should be considered as complimentary. However, the model will rely on the Corrado et al. (2006) definition and will also consider the role of public intangible resources as resources contributing to firm performance, allowing space for introduction of corporate social responsibility and other elements, primarily the exogenous role of the public sector. The analysis proceeds in several steps, from determining strategic objectives, linking tangible and intangible resources to those objectives, determining thus the motivations for investments and the transmission channel from investments to achievement of firm goals.

The paper makes several contributions to the literature. First, it provides a first comprehensive model of investment into intangible assets following the dominant definition of intangibles in the economic

literature, which, second, also allows explaining differences between firms and sectors. Third, it attempts to close the gap between the observed level of intangible investments and their impact and the lack of understanding about why such pronounced differences can be observed between firms and sectors. Fourth, the model presents a bridge between the economic and management literature, which last, also provides important managerial implications.

*Keywords:* intangible capital, firm level motivation, firm performance, theoretical model

## References

- Corrado, C., J. Haskel, and C. Jona-Lasinio. 2016. *Intangibles, ICT and Industry Productivity Growth: Evidence from the EU*. Cambridge University Press. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85021216847&doi=10.1017%2f9781316534502.009&partnerID=40&md5=c0f90a1bea94201a1366b003bc7f621e>.
- Corrado, C., C. Hulten, and D. Sichel. 2009a. “Intangible Capital and U.S. Economic Growth.” *Review of Income and Wealth* 55(3): 661–85.
- . 2009b. “Intangible Capital and U.S. Economic Growth.” *Review of Income and Wealth* 55(3): 661–85.
- Corrado, Carol, Jonathan Haskel, Cecilia Jona-Lasinio, and Massimiliano Iommi. 2016. *Intangible Investment in the EU and US before and since the Great Recession and Its Contribution to Productivity Growth*. European Investment Bank (EIB). <https://ideas.repec.org/p/zbw/eibwps/201608.html> (October 26, 2018).
- Forbes, Naushad, and David Wield. 2000. “Managing R&D in Technology-Followers.” *Research Policy* 29(9): 1095–1109.
- Irina, C. 2018. “The Influence of Intangible Assets on the New Economy at European Level.” In *Proceedings of the 32nd International Business Information Management Association Conference, IBIMA 2018 - Vision 2020: Sustainable Economic Development and Application of Innovation Management from Regional Expansion to Global Growth*, ed. Soliman K.S. International Business Information Management Association, IBIMA, 506–14. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063051255&partnerID=40&md5=1a489a332e5e53816ccae3261267a38f>.
- Ji, H. 2018. “The Value Relevance and Reliability of Intangible Assets: Evidence from South Korea.” *Global Business and Finance Review* 23(2): 98–107.
- Jona-Lasinio, Cecilia, and Valentina Meliciani. 2018. “Productivity Growth and International Competitiveness: Does Intangible Capital Matter?” *Intereconomics - Review of European Economic Policy* 2018(2): 58–62.
- Li, Q., and Y. Wu. 2018. “Intangible Capital in Chinese Regional Economies: Measurement and Analysis.” *China Economic Review* 51: 323–41.
- Lopez, J.I., and V. Olivella. 2018. “The Importance of Intangible Capital for the Transmission of Financial Shocks.” *Review of Economic Dynamics* 30: 223–38.
- Piekkola, H. 2011. “Intangible Capital: The Key to Growth in Europe.” *Intereconomics* 46(4): 222–28.
- . 2018. “Broad-Based Intangibles as Generators of Growth in Europe.” *Economics of Innovation and New Technology* 27(4): 377–400.
- Prašnikar, J., ed. 2010. *The Role of Intangible Assets in Exiting the Crisis*. Ljubljana: Časnik Finance.
- Roth, F., and A.-E. Thum. 2013. “Intangible Capital and Labor Productivity Growth: Panel Evidence for the EU from 1998-2005.” *Review of Income and Wealth* 59(3): 486–508.
- Sánchez, P., C. Chaminade, and M. Olea. 2000. “Management of Intangibles – An Attempt to Build a Theory.” *Journal of Intellectual Capital* 1(4): 312–27.
- Tahat, Y.A., A.H. Ahmed, and M.M. Alhadab. 2018. “The Impact of Intangibles on Firms’ Financial and Market Performance: UK Evidence.” *Review of Quantitative Finance and Accounting* 50(4): 1147–68.
- Vrh, N. 2018. “What Drives the Differences in Domestic Value Added in Exports between Old and New E.U. Member States?” *Economic Research-Ekonomska Istraživanja* 31(1): 645–63.
- Yang, S., and X. Shi. 2018. “Intangible Capital and Sectoral Energy Intensity: Evidence from 40 Economies between 1995 and 2007.” *Energy Policy* 122: 118–28.