

## **Development of a Questionnaire for Collecting Intangible Capital Data in Croatian Firms<sup>1</sup>**

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In the modern economy, intangibles are more important than tangible assets as sources of competitiveness, sustainable growth and business success. Corrado, Hulten, and Sichel (2009), McGrattan and Prescott (2005a, 2005b), and Fukao et al. (2009), provide evidence that excluding intangibles distorts estimates of TFP, GDP growth, the value of corporate equity, and labor hours at the macroeconomic level. The literature on Croatian intangible capital and its components and their impact on performance are poor (Maravić, 2019). These previous studies of intangibles face various challenges, because of their inherent characteristics, that is, they are intangible and difficult to conceptualize and measure.

The purpose of this paper is to develop a methodological framework for the measurement of intangible capital at firm level Croatian firms. The goal is to capture the size of the investment, the detailed structure and the benefits from the investments in intangibles in manufacturing and services, with a special focus also on tourism.

The paper will investigate, evaluate and rephrase the existing questions for measuring intangible investments using survey data and to identify the main intangibles components in Croatia, specifically in tourism.

The measurement will be based on a survey approach due to the lack of administrative data on different intangible assets. The questionnaire will draw on existing work done in the field, for example Eurobarometer survey (2013), ISFOL & ISTAT (2013), NESTA & ONS (2009; 2010), Croatian Bureau of Statistics (2018), but will at the same time attempt to overcome the methodological problems that the aforementioned approaches encountered in their analyses. The questions will be organized along three thematic blocks. The first one looks into the general information of firms. The second focuses on the investment in intangible assets. Questions from the third block cover several aspects related to sector specifics (manufacturing, services and in particular tourism) as well as policy aspects. The questionnaire development will follow standard official statistical questionnaire development approach. It will combine yes/no questions, multiple-choice questions with predefined answers offering respondents the possibility to choose and rank among several options or the possibility to grade on Likert scale. Pilot face-to-face interviews will highlight certain issues with respect to question structure. This paper aims to discuss the methodological challenges identified and present preliminary final results. The survey will be distributed to Croatian companies with at least 10 employees. Recommendations will be made to overcome these problems before the questionnaires are applied in future research projects.

The contributions of the paper lie (1) in the development of the measurement approach to capturing intangibles in Croatia and (2) empirically highlighting the preliminary results focused on the main intangible components. The research will provide information on the level of investment in intangible

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<sup>1</sup> This work has been fully supported by the University of Rijeka under the project number [uniri-drustv-18-166]

capital of intangible capital in Croatia. Moreover, this study will enable to access a unique database that will allow reproduction or comparison with similar studies. It also provides brief surveys of studies dealing with particular detailed topics.

*Keywords:* Intangible capital, tourism, questionnaire, Croatia

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