

Chapter 5

ICT and Web 2.0 Technologies as a Determinant of Business Performance

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EXECUTIVE SUMMARY

This chapter aims at presenting the results of an empirical study, linking the fields of technology-enhanced learning (TEL), Web 2.0 technologies and organizational learning, and their impact on the financial and non-financial business performance. The chapter focuses on the presentation of the conceptualization of a structural model that was developed to test the impact of technology-enhanced learning and Web 2.0 technologies on the organizational learning and business performance of companies with more than 50 employees. The paper provides detailed definitions of technology-enhanced learning, Web 2.0 technologies and technical terms related to it, its scope and the process of organisational learning, as well as a method for business performance assessment. Special attention is given to the findings related to the observed correlations between the aforementioned constructs. The results of the study indicate a strong impact of ICT and technology-enhanced learning on organizational learning and the non-financial business performance.

INTRODUCTION AND BACKGROUND

Success in a highly dynamic environment requires a more efficient response to customers from the side of the companies, more flexible approaches

in facing their business circle and more focus on their core competencies (Smith, 2008). What are companies expected to do in order to introduce the necessary changes in the whole business circle? The answer definitely lies in people. The employees' knowledge and competencies significantly contribute to the company's ability to react to the

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requirements of the fast changes markets, customer needs and successful business processes. With this in view, companies are obliged to manage and maintain the knowledge of their employees. Maintaining the knowledge means to evaluate the employees' tacit and explicit knowledge, and provide knowledge within the company with the suitable tools (Reychav & Weisberg, 2009).

To perform this approach effectively, employees and all members of the company are expected to continuously refresh and enhance their skills and knowledge (Collins & Smith, 2006). As the human capital replacing the physical capital as the source of competitive advantage, organizational learning emerges as a key element for success (Varney, 2008). Only by making learning a truly strategic investment we can ensure an organization in which every person within the company is fully enabled to perform effectively and meet the ever changing demands.

When companies devise their strategies for the employee knowledge acquisition, they can find the most suitable solutions among the methods based on information and communication technologies (ICT), Web 2.0 technologies and technology-enhanced learning (TEL). Technology-enhanced learning as a way of acquiring knowledge and competences has been adopted by many companies as a promising time and cost saving solution providing learn-on-demand opportunities to individual employees, TEL enables workers to access various on-line databases, tools and e-services that help them find solutions for work-related problems (Zhang, 2002; 2003). The term Web 2.0 was coined by O'Reilly (2005) as a common denominator for recent trends heading towards the 'Read-Write Web', allowing everyone to publish resources on the web using simple and open, personal and collaborative publishing tools, known as the social software: blogs, wikis, social bookmarking systems, podcasts, etc. The main features of these tools are dynamism, openness and free availability. According to MacManus and Porter (2005), the power of social software

lies in the content personalization and remixing with the other data to create much more useful information and knowledge. The continuously growing dissemination of social and open software in technology-enhanced learning is expected to reshape the technology-enhanced learning landscapes that are currently based on closed, proprietary, institutionalized systems. Thanks to the web evolution, the use of social and open software for learning is becoming an increasingly feasible alternative to these closed, proprietary, institutionalized systems.

However, earlier authors (Roach, 1987) argued that ICT still had not paid off in terms of the required productivity growth. The phenomenon was called the 'productivity paradox' and it asserted that the ICT investments did not result in productivity gains (Navarette & Pick, 2002). Carr (2003) believes that 'ICT may not help a company gain a strategic advantage, but it could easily put a company at a cost disadvantage.' Indeed, the latest empirical studies (Dewan & Kraemer 1998; Navarette & Pick 2002; Dimovski & Škerlavaj 2003) tend to reject the productivity paradox thesis – the phenomenon of organisational learning can be seen as a way out of the dilemma called the productivity paradox. In the last few decades the field of organisational learning has attracted a lot of interest from academics as well as practitioners. A key question in this context is the connection between ICT and organisational learning, and the impact they both have on the business performance (Škerlavaj & Dimovski, 2006).

In the past decade, quite a lot of research studies dealt with the influence of ICT (investments, usage, etc.) on (mainly financial) business performance. We can divide them into four streams of research based on the observed units: business, industry, national and international levels. The results were mixed. Some recent studies in our context (Dimovski & Škerlavaj, 2003) that analysed the influence of hardware, software, telecommunications and knowledge investments on value added per industry in Slovenia for the

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