Chapter 18
The Effects of E–Journal System on Organizational and Study Processes

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ABSTRACT

Motivated by practice of other schools, Europe Union policies, and The Republic of Lithuania's laws, Lithuanian schools are introducing e-journal systems to support pupils' learning, schools' administrative processes, as well as communication with parents and between different stakeholders of the schools' educational and administrative processes. In production-oriented firms, efficiency gains stemming from the introduction of Information Systems (IS) and Technologies (IT) to support the main functions of the firm can be estimated based on resource consumption and production volumes. In a learning- or knowledge-oriented organization, however, efficiency gains are difficult to estimate for a variety of reasons. Some reasons are a lack of previous research on the topic as well as a lack of practice among schools to monitor the effects of e-learning systems. In this chapter, the authors set the method for assessing changes in performance resulting from the introduction of an e-journal system in a secondary school. Following the theoretical model developed by Gaskin, the authors measure process changes using dimensions of productivity, efficiency, quality, and consistency. Besides describing methods for performance assessment, the study helps better understand the pros and cons of computerization of learning-oriented organizations and suggests venues for improvement in pursuing further computerization of schools in Lithuania.

INTRODUCTION

The contemporary society sees more and more processes and interactions moving to electronic form, supported by the Internet. Electronic voting, tax-, address-, job-related declarations, and, more recently, a massive move of educational organizations at all levels to the implementation of electronic forms of learning and administration.

The move to electronic and Internet-based operations during the last two decades has been seen as a necessity for businesses (Fomin et al., 2005), and, overall, as a success story. In the case of e-commerce, organizational performance gains can be easily assessed – reduction of costs, more efficient supply chain, increased geographical reach, etc. (Fomin et al., 2005). Companies which are successful in switching to electronic forms of running business usually see their sales and customer base growing. The same assessment criteria, however, cannot be applied to learning organizations. Schools do not pursue expansion of customer base, increase of sales, or reduction of the number of teachers. How can the introduction of e-journal be justified? In this work we aim at answering this question. We provide a detailed description of the context and an overview of relevant existing works to help better understand the methods for measuring performance gains in knowledge-based and learning organizations. We build on the earlier work (Fomin & Česonytė, 2012), refining and describing the method for the assessment of performance in learning organization.

The idea of computerization of Lithuanian secondary education system came on the wave of initiatives related to Information Society (Council of the European Union, 2000; Council of the European Union, 2002). It was expected that introduction of e-journal systems in Lithuanian schools will bring forth such benefits as the reduction of bureaucratic burden, improvement of communication with the parents, reduction of work load of teachers, and improvement of pupils' attendance to classes (SMM, 2010). Having introduced e-journal, however, the sought for (radical) changes are difficult to notice – academic performance of pupils remains as it was before, teachers' head count and remuneration remain the same, etc. How can one assess whether the goals set for the introduction of e-journal were met? And, more importantly, how to be sure that the introduction of technologies into the school brought about a positive effect on the processes related to the primary function of the knowledge institution – i.e., delivering of quality education?

To date in Lithuania there are is a lack of research providing a critical assessment of the effects of e-journal introduction in schools. More so, there aren't official or unofficial methodologies available on how to carry out such assessment. To fill in the gap, we are building on the earlier work (Fomin & Česonytė, 2012), refining and describing the method for the assessment of performance in learning organization.

LITHUANIA ON ITS WAY TO INFORMATION SOCIETY

Achieving the state of "information society" is only possible when economic and social activities in all major spheres life will be carried out using informational infrastructures – interlinked and interoperated information systems (IS), thus catering for obstacle-free informational exchange, knowledge accumulation, and information-based innovation processes.

Informatization of schools is doubly important in the context of the development of information society, as it secures a) provision of informational tools and resources to the educational institutions, and b) helps prepare young citizens living and working in information society.

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