

Chapter 3.3

DeLone & McLean IS Success Model in Evaluating Knowledge Transfer in a Virtual Learning Environment

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ABSTRACT

DeLone & McLean's success model has been actively used since its first introduction in 1992. In this article, the authors extend this model to describe the success of knowledge sharing in an information system that included a part of the knowledge base of a private educational institute. As the supply of private education is increased, it is vital to be aware if the offered educational services support the use of the knowledge base and if the service is perceived satisfactory by the customers. In this descriptive qualitative case study, the authors discuss how the DeLone &

McLean's information system success model can be used to assess educational services when apprenticeships form a salient part of teaching. This paper focuses on issues that interested the target organization.

INTRODUCTION

This paper highlights the need to assess information systems that form the base business idea in private educational enterprises. Even if it is challenging to evaluate the quality of educational systems due to the versatility of available criteria (Wang et al., 2009), we add into the discussion of assessing education by introducing a descrip-

DOI: 10.4018/978-1-60960-783-8.ch3.3

tive qualitative case study where education with a virtual learning environment was seen as a service by a private organization. The service was offered to adult students who were seen as customers of the organization. As the competition between education providers was increasing, it was essential to evaluate the services that were offered in the field. To describe the service, we used the success model originally developed by DeLone and McLean (1992) and later modified and assessed by several researchers (e.g., DeLone & McLean, 2003; Holsapple & Lee-Post, 2006; Lin, 2007; Wang et al., 2007; Petter et al., 2008).

In virtual learning environments the participants typically communicate with other participants (Piccoli et al., 2001). There are electronic services where the product is not a physical ware or digital information product – instead, the services concentrate on producing pure service (Tiwana & Ramesh, 2001). Therefore, it is reasonable to assess the interaction between the participants as an important element of the service. In this paper the focus is limited to describe how knowledge sharing was perceived in the virtual environment. In the vocational schooling where the accepted apprenticeship formed the central part of the degree, the role of tacit knowing was emphasized.

In this paper knowledge is understood as hierarchical concepts of data, information and knowledge. Besides concepts, knowledge is seen as a state of mind, object, process, prerequisite of accessing information, and in our paper, especially skills. We also look at knowledge as classified into tacit and explicit knowledge and note its cultural, functional, embedded, individual, social and pragmatic nature (Alavi & Leidner, 2001; Blackler, 1995; Choo, 1998; Nonaka, 1994.)

We acknowledged the ambiguous nature of knowledge and we aimed to find out how knowledge is introduced in the literature. As our empirical material was collected from a private educational organization, we also looked knowledge as a key property of the organization (Becerra-Fernandez & Sabhervall, 2001; Nissen, 2002). Among other

means, the property was accessed with the help of a virtual learning environment and that set requirements to the information system. However, as the information system was seen as a service, its value and usefulness was to be assessed.

The research approach was qualitative and interpretive (Walsham, 1995, 2006) and we converged the research problem with the help of a case study (Stake, 2000; Yin, 2003). Before introducing the case, we take a look at prior literature focusing on knowledge management, knowledge transfer and virtual learning environment. We emphasize the role of interaction and service as the case represents a core product of a private organization.

PRIOR LITERATURE

In this section we discuss the key concepts in our study. First, the nature of knowledge management and knowledge transfer is discussed. Then, virtual learning environment is presented emphasising its service nature. Finally, we introduce the DeLone & McLean success model and how it is used in prior studies related to virtual learning.

Knowledge Management and Knowledge Transfer

Knowledge can be found in several contexts such as relationships between people, processes, organizational memories and products. Therefore, it is important to understand its nature and value, not to forget its maintenance and transfer in its contexts. Before knowledge can be re-used, it must be stored and transferred for instance in organizational memory. Furthermore, to acquire organizational memory it necessitates that knowledge is acquired and used in the organization. All storages – man-made databases, online data sources, emails – are explicit knowledge which is created from tacit knowledge. The storages are not useful to other people if the storages are not

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