



Chapter VII

Success Factors in the Implementation of a Collaborative Technology and Resulting Productivity Improvements in a Small Business: An Exploratory Study

Nory B. Jones, University of Maine, USA

Thomas R. Kochtanek, University of Missouri in Columbia, USA

ABSTRACT

Practitioners and academics often assume that investments in technology will lead to productivity improvements. While the literature provides many examples of performance improvements resulting from adoption of different technologies, there is little evidence demonstrating specific, generalizable factors that contribute to these improvements. Furthermore, investment in technology does not guarantee effective implementation. This qualitative study examined the relationship between four classes of potential success

factors on the adoption of a collaborative technology and whether they were related to performance improvements in a small service company. Users of a newly adopted collaborative technology were interviewed to explore which factors contributed to their initial adoption and subsequent effective use of this technology. The results show that several factors were strongly related to adoption and effective implementation. The impact on performance improvements was further explored. Results showed a qualitative link to several performance improvements including timesavings and improved decision-making. These results are discussed in terms of generalizability as well as suggestions for future research.

INTRODUCTION

The importance of knowledge sharing and the ability to tap into an organization's vast reservoir of creative intellect have been acknowledged as possibly the greatest strategic competency an organization can achieve (Davenport 1999; Pan et al. 1999). By enabling associates to share their ideas, expertise, and wisdom, problems can be solved more easily, processes can be improved, and productivity can be increased. As business environments become more turbulent and technologies become increasingly dynamic, the pace of change and competitive pressures spiral more steeply upward. As this pace continues, organizations require technologies, capabilities, and a culture that enables them to keep up with these changes (Rumizen 1998; Senge 1997).

Furthermore, in an era that is becoming predominantly digital, the ability to share knowledge is becoming easier, cheaper, and more widely accepted. Many organizations recognize that collaborative technologies, supported by distributed electronic networks, can reduce barriers to communication and facilitate knowledge sharing within the organization (Ciborra et al. 1996). Collaborative technologies can enable people in distributed environments to work together seamlessly, irrespective of location, time, or functional area. By sharing a common goal in a networked environment, virtual teams can create synergistic relationships and quality output via collaborative knowledge sharing. In addition, the communication patterns that develop in electronic collaborative environments are equally applicable to people sharing knowledge in the same building or even in the same room as those who are divided by continents (Barbar et al. 1998).

While causal relationships between knowledge sharing and specific quantifiable performance improvements to achieve competitive advantages have been scarce, researchers have qualitatively documented some organizational performance improvements. For example, the adoption of one particular collaborative technology (Lotus Notes) to facilitate knowledge sharing increased productivity and efficiency in a software company when they created a knowledge sharing repository to prevent duplication of research efforts (Orlikowski

20 more pages are available in the full version of this document,
which may be purchased using the "Add to Cart" button on the
publisher's webpage: [www.igi-global.com/chapter/success-factors-
implementation-collaborative-technology/4476](http://www.igi-global.com/chapter/success-factors-implementation-collaborative-technology/4476)

Related Content

Reducing Power and Energy Overhead in Instruction Prefetching for Embedded Processor Systems

Ji Guand Hui Guo (2013). *Mobile and Handheld Computing Solutions for Organizations and End-Users* (pp. 323-340).

www.irma-international.org/chapter/reducing-power-energy-overhead-instruction/73220

An Empirical Study of the Effects of Training Sequences on Database Training Tasks and User Outcomes

Clive C. Sanfordand Anol Bhattacharjee (2008). *End-User Computing: Concepts, Methodologies, Tools, and Applications* (pp. 2124-2139).

www.irma-international.org/chapter/empirical-study-effects-training-sequences/163880

Predicting Patients' Satisfaction With Doctors in Online Medical Communities: An Approach Based on XGBoost Algorithm

Yunhong Xu, Guangyu Wuand Yu Chen (2022). *Journal of Organizational and End User Computing* (pp. 1-17).

www.irma-international.org/article/predicting-patients-satisfaction-with-doctors-in-online-medical-communities/287571

Search Engine Advertising Perceived Effectiveness: A Resource-Based Approach on the Role of Advertisers' Competencies

Hamed Jafarzadeh, Babak Abedin, Aybüke Aurumand John D'Ambra (2019). *Journal of Organizational and End User Computing* (pp. 46-73).

www.irma-international.org/article/search-engine-advertising-perceived-effectiveness/233829

Implementation Management of an E-Commerce-Enabled Enterprise Information System

Joseph Sarkisand R. P. Sundarraj (2008). *End-User Computing: Concepts, Methodologies, Tools, and Applications* (pp. 1420-1426).

www.irma-international.org/chapter/implementation-management-commerce-enabled-enterprise/18261