

Chapter 8

A Tale of Two Systems: ERP in China – Failure and Success

Wendy Wang

Trident University International, USA

Yun Wu

Salisbury University, USA

ABSTRACT

With China becoming an economic powerhouse, there has been increasing need for more studies on issues related to information systems localization in China and ways to solve them. Most information systems adoption literatures have been conducted in the context of Western society, especially in America, and due to differences in the cultural, social, and legal environment, these theories and findings out of these studies need to be tested in the context of Chinese culture. This chapter adopts the technology, organization, and environment framework to explain why a Chinese apparel manufacturing company failed in its first enterprise resource planning (ERP) project, and how it achieved success in the second project with government's assistance and what they have learned from their first experience with ERP. This study provides insight on the characteristics of Chinese companies and the unique challenges they have encountered in the informatization process.

INTRODUCTION

An enterprise resource planning system (ERP) is an information system that integrates business processes, its purpose is to make the right information available to the right people at the right time to make the right decision. A successful ERP system benefits organization by managing resources productively and proactively; it can help to improve business performance, support information sharing, ensure compliance, cut cost, and increase customer satisfaction (McGaughey & Gunasekaran, 2007; Ravasan & Rouhani, 2014). Organizations adopt ERP since it is considered a strategic tool to gain competitive advantages, and/or the competitors are doing it (Johansson & Newman, 2010; McGaughey & Gunasekaran, 2007; Ravasan & Rouhani, 2014). Millions of dollars are invested in acquiring and implementing ERP. According to paramount consulting, there has been an increase in ERP implementation costs. The average total

DOI: 10.4018/978-1-5225-7214-5.ch008

cost of ownership increased from \$2.8M in 2014 year to \$4.5M in 2015. Disney Corporation spent \$400 million for a two-year project (Seddon, Calvert, & Yang, 2010). The Allied Market Research anticipated that by the year of 2020, the ERP market could reach \$41.69 billion worldwide with a growth of 7.2 percent per year. Cloud-based ERP shows an even higher growth rate as a result of a steady increase of mobile devices and social media utilization in organizations. Such cloud-based ERP solution offers extra benefits such as low investment cost and flexible real-time data storage and access, it enables small and medium companies take the advantages of ERP systems. With the concerns over data loss and risk of security beach, such growth slows down somewhat in 2017.

Like most large IT projects, ERP systems are sophisticated software packages that require an alignment of organizational processes with the ERP processes. This causes considerable difficulties for firms to adopt and implement. According to Paramount consulting, over 75% of the ERP projects in 2017 went through moderate to major customization, very few organizations did not do any customization. Many ERP projects failed to realize the intended benefits. According to analyst firm Gartner, despite the industry's efforts on providing better customer service and advanced IT systems, approximately 75 percent of all ERP projects fail. Even large firms such as Hershey lost \$150 million in revenue after spending \$112 million for a system which caused logistics problems in the first year (Seddon et al., 2010). There are 30%-50% of the organizations that claimed project success, since there are different ways to define ERP success, when we add international dimension, the definition and measurement becomes more difficult and complicated (Agourram, Robson, & Amine, 2007), the actual success rate can be lower. Closer examination suggested that projects that claimed to be successful might not mean they had been on time or within the budget (Brown & He, 2007; Markus & Tanis, 2000). Paramount consulting reported 74% of respondents exceeded their original budget in 2017.

China is an emerging market for ERP. In 1980s, the investment in ERP is negligible, and during 1990s, it was less than 50 million per year. During 2000-2005, annual spending increases from \$71 million to \$380 million (Brown & He, 2007). According to PR newswire, ERP market is expected to grow 14.25% each year during the period of 2014-2019. All these investments make Chinese market a priority of international and domestic vendors. However, these expenses are not very effective, with low success rate and problems such as shortage of talents with ERP implementation experience, incompatibility of ERP logic with local culture, difference of tax structure and management style etc. (Malaurent & Avison, 2015).

Given the importance of ERP, the scale of investment, and the high failure rate, the quest to answer the question of why some projects are successful whereas most fail has generated a lot of research interests. Researchers and practitioners have identified many factors that can lead to the ERP failure in the context of the western world, e.g., system quality, information quality, service quality, user satisfaction, individual benefits, management support, strategic alignment, project management, and commitment to change etc. (Hsu, Yen, & Chung, 2015; Ravasan & Mansouri, 2014; Velcu, 2010; Lai, I. K.W., 2006). A few studies documented what companies have learned and their subsequent efforts. Malaurent and Avison (2015) reported a case that described a mostly unsuccessful implementation of a French multinational corporation's ERP project in its Chinese subsidiaries. The project failed since many ERP imposed features did not fit in the Chinese context. For example, the ERP system enforced less than 90 days payments once the products were delivered, however, the standard cycle in China was usually half a year; how the tax is calculated in China is different from the one prescribed in the ERP system. All these made the system impractical to use. To avoid the project being totally abandoned, the Chinese users got around these mismatches by coming up with unique solutions. These solutions made the system

15 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/a-tale-of-two-systems/211615

Related Content

Particle Swarm Optimization from Theory to Applications

M.A. El-Shorbagy and Aboul Ella Hassanien (2018). *International Journal of Rough Sets and Data Analysis* (pp. 1-24).

www.irma-international.org/article/particle-swarm-optimization-from-theory-to-applications/197378

Challenges and Implications of Health Literacy in Global Health Care

Kijpokin Kasemsap (2018). *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 3734-3744).

www.irma-international.org/chapter/challenges-and-implications-of-health-literacy-in-global-health-care/184083

Fuzzy Rough Set Based Technique for User Specific Information Retrieval: A Case Study on Wikipedia Data

Nidhika Yadav and Niladri Chatterjee (2018). *International Journal of Rough Sets and Data Analysis* (pp. 32-47).

www.irma-international.org/article/fuzzy-rough-set-based-technique-for-user-specific-information-retrieval/214967

POI Recommendation Model Using Multi-Head Attention in Location-Based Social Network Big Data

Xiaoqiang Liu (2023). *International Journal of Information Technologies and Systems Approach* (pp. 1-16).

www.irma-international.org/article/poi-recommendation-model-using-multi-head-attention-in-location-based-social-network-big-data/318142

Getting the Best out of People in Small Software Companies: ISO/IEC 29110 and ISO 10018 Standards

Mary-Luz Sanchez-Gordon (2017). *International Journal of Information Technologies and Systems Approach* (pp. 45-60).

www.irma-international.org/article/getting-the-best-out-of-people-in-small-software-companies/169767