

Chapter 3

Evaluating Web Site Support Capabilities in Sell-Side B2B Transaction Processes: A Longitudinal Study of Two Industries in New Zealand and Taiwan

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ABSTRACT

Business-to-business (B2B) transactions supported by the World Wide Web (Web) have become a major portion of e-commerce transactions. Despite growth, knowledge of the degree of Web site support capabilities in the B2B transaction process is limited. This paper longitudinally compares how Web sites supported the B2B transaction process in New Zealand and Taiwan between 2001 and 2007. The results indicate that, on average, New Zealand Web sites scored higher than those in Taiwan in both years. Yet, the rate of improvement of Taiwanese Web site scores is significant. Specifically, the support capability of several Web functions, including privacy, company information, financial information and product catalog has improved over the study period. The authors found that the sampled Web sites in New Zealand and Taiwan provide different support capabilities to the activities in the B2B transaction process. Taiwanese Web sites are more concerned with providing after-sale services via the Internet whereas New Zealand Web sites are more concerned with sharing information. These two countries' Web sites share a similar focus on supporting B2B transactions, which provides strong support for users to conduct product promotion and information provision related activities over the Web. Based on these findings, this study suggests several implications for associated academics and practitioners.

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INTRODUCTION

Business-to-business (B2B) transactions supported by the World Wide Web (Web) have become a major portion of all e-commerce transactions (Albrecht, Dean, & Hansen, 2005). The growth of B2B e-commerce is driven from a business desire to reduce transaction costs through the e-commerce platform, and to enhance their global competitiveness. A Web site provides the ability for businesses to create value by aligning themselves with their customers and suppliers in B2B e-commerce. In this scenario, the Web site supplies e-commerce with a platform which allows multiple businesses buy and sell goods and services from different locations. This Web-based application has been integrated with B2B transaction activities, and will become more critical to B2B commerce in the future. Companies can contact business partners in a timely fashion and provide product information through a B2B Web site via the Internet. Nevertheless, companies can exploit more opportunities for strategic alliances and collaborations with potential business partners by participating in B2B activities (Ordanini, 2005).

While many classes of B2B Web-based applications are developed, most of them are derived from the idea of sell-side support (Turban, King, Lee, & Viehland, 2006). This type of e-commerce practice focuses on utilizing Web technologies to sell goods or services to multiple business customers, and it usually follows the conventional e-commerce model. Despite Web sites being a powerful e-commerce tool, the degree of Web site support capabilities in the B2B transaction process is unclear. There is a lack of a comprehensive view of how the sell-side B2B Web sites functions fit within the context of the overall relationship and transaction processes. Although a number of previous studies have examined some functions of commercial Web sites (Chu, Leung, Hui, & Cheung, 2007; Yeung & Lu, 2004), few longitudinal studies on how Web sites have developed to support B2B business transaction processes are available in the literature.

This study aids understanding of the evolution of B2B Web sites, and examines how the Web sites which support B2B transaction processes have evolved over a period of time in two countries, New Zealand and Taiwan. The Global Information Technology Report (World Economic Forum, 2007) indicated that Taiwan possesses an excellence of network readiness and is ranked as top level in Asia-Pacific. It seems that companies in Taiwan have greater technological capabilities and readiness to develop the specific field of B2B e-commerce. However, from the other perspective, the emergence of e-commerce has provided more opportunities, such as larger electronic markets and low-cost communication with business partners, for New Zealand companies. Because of its geographical isolation in the world, the advantages of Internet access to international resources of business information and electronic marketplace are relatively important for the small and medium sized enterprises in New Zealand. It is expected that New Zealand companies have greater intention to utilize Web sites support B2B transaction processes.

Despite these suspicions, from the overall perspective, the evolution of e-commerce practices and a larger number of research papers published on e-commerce in the past few years has led us to be more inclined to believe that Web sites have been improved. However, is it true? Have businesses enhanced their Web capabilities in terms of conducting B2B transaction processes virtually? We seek to bridge this gap in the Web evaluation literature regarding sell-side B2B transactions.

To examine how the Web sites which support B2B transaction processes have evolved over a period of time in the two countries, this research evaluated and compared the B2B Web sites in the two countries over a period of six years. The samples evaluated were chosen from sell-side Web sites in the electrical components and computer hardware industries in each country.

The rest of this paper begins with the induction of economies and IT capabilities in New Zealand and Taiwan, and is followed by a series

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