Determinants of Business-to-Business (B2B) Website Use by a Buyer-Supplier Dyad:
Case of an Automotive Component Manufacturing Co.

Merlin Nandy, IBM India Private Ltd., Bhubaneswar, India

ABSTRACT

This article is based on one of the manufacturers of automotive components in India referred to as Avanti Enterprises (AvE). It describes the implementation of a Business-to-Business (B2B) website by AvE for its suppliers and highlights the factors that led to use of this website, by one particular supplier. As an example, this supplier is referred to as Bhusan Industries (BHI). The case is based on a dyad of primary organization (AvE) and the user organization (BHI) to discuss the level of use of a B2B website by the dyad and describes the factors related to the primary hosting organization and the user organization that determines use. The article aims to: understand why a website is used; to describe the website features and how they are used; describe the primary organization characteristics; how and why those characteristics influence the website use; to describe the user organization characteristics; and how and why they influence the website use. Sources of data include company documentation, interviews, industry databases, secondary case studies relevant to the framework and company websites.

KEYWORDS

Business-to-Business, Case Study Research, Dyad, e-Business, Information Intensity, Inter-Organizational Process, Website Use

INTRODUCTION

In today's business environment, with organizations increasingly becoming multi-national in nature, it is inevitable that they build strong and reliable information technology (IT) infrastructure in an attempt to support their interactions with other global firms. The increasing complexity of operations in organizations and an increasing environmental uncertainty are leading to a greater degree of ambiguity and a lack of clarity of objectives in organizations. This amounts to more information being generated and processed within the organization as well as being exchanged with other organizations, which effectively increases the information intensity of the organization and the inter-organizational processes. Business-to-Business (B2B) electronic business (e-business) applications facilitate such inter-organization information sharing. Greater information intensity of organizational processes demands greater sophistication of information technology tools which are capable of processing such huge loads of information and help reach out to entities that need this information. However, setting up of the required IT infrastructure has not always resulted in success. The failure of many

such IT initiatives has been primarily due to an inadequate understanding of the overall scenario of IT deployment in organizations at three levels – adoption, use and strategic benefits. Organizations fail to enhance benefits from IT due to a lack of understanding of IT itself and its potential to deliver strategic benefits, a lack of strategic planning for IT applications, and a lack of effective management of IT applications and environments (Gebauer and Shaw, 2002). This is further heightened by the lack of knowledge of the existing gaps between potential use and planned use, and between planned use and the actual use. The Internet has huge potential for businesses if adopted and implemented in an appropriate manner. The success of any e-business initiative depends on the successful implementation and the actual use of the web applications with a website as the front end.

The phenomenon of B2B website use is complex as it involves two organizations with different objectives, stakeholders, structures and cultures engaged in certain interactions. Such a relationship is likely to be highly complex. There may also be multiple firms using the same website. Literature shows that organizations differ in their Internet adoption and use. This could be due to differences in the technologies, organizational context, industry segments, and business environment. The adoption levels are defined in terms of the features that the website displays and the scope to use for the users. Authors have classified the levels of Internet adoption, based on features like web presence with a static website, i.e. a website with company information, product information, news, events, websites with interactive content, such as personalized content, email support and simple search, and websites with advanced search, customer service, dealer locator, sale transactions, community and discussion boards, online ordering and payment (Dutta and Segev, 1999; Stephan, 2001; Teo and Pian, 2003; Young and Benamati, 2000). In the case of a B2B website, the content is restricted to the supply chain partners. The website features for dealers / business customers and suppliers would be different in certain respects. A dealer facing website will mainly have pre-sales, sales and after-sales content (Liu, Arnett and Beaty, 1997). A supplier facing website will mostly have information about demands, payment, and online bidding. Analyzing the various activities in the customer facing and supplier facing processes, one can draw the bigger picture or layout of the website at a broad level. (Mishra and Agarwal, 2010) in their paper have investigated the organizational use of IT-based innovations, with a particular focus on B2B electronic markets for procurement. According to the authors, the extent of B2B markets use, High or Low, is driven by technological frames (benefits, threats, adjustment) and organizational capabilities, namely, technological opportunism and technological sophistication. (Barua, Konana, Whinston and Yin, 2001) have discussed the opportunities that a firm has to apply e-business technologies. They talk of supplier related and customer related processes and internal processes that require exchange of information, processing of information and sharing of information with various supply chain partners. Supplier-facing IT systems, must be capable of sharing information on process and product quality, resource planning in inventory, communication and supplier evaluation reports, and also support automatic ordering, online invoicing, order status tracking and e-payments. Customer-oriented websites should contain details of products, allow visitors to carry out transactions, submit, modify, customize and track orders, pay online, and receive automatic notifications about the order status. Firms need to exploit these opportunities to obtain operational excellence.

(Sila, 2013) in his paper analyzed the factors affecting the adoption of B2B electronic commerce. Global B2B e-business transactions reached $12.4 trillion in 2012, compared to $3.4 million in 2005. The paper suggests that the technology-organization-environment (TOE) framework is an efficient model to analyze those factors which comprise of organizational and inter-organizational factors, technological factors and environmental factors. The influencing factors were also analyzed using several contextual variables, including firm size, firm type, management level of respondents, and country of origin of firms. Scalability is the most important factor for B2B e-business adoption. (Kim, 2012) studied the determinants that cause consumers to carry out a purchase on their first visit to an e-vendor website. Trust is one of the key determinants which can be categorized as initial trust and ongoing trust. Initial trust facilitates the beginning of a relationship and ongoing trust reinforces the relationship. E-vendors should focus on building initial trust to expand their market share. Technology

13 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/article/determinants-of-business-to-business-b2b-website-use-by-a-buyer-supplier-dyad/201196

Related Content

Evolutionary Mining of Rule Ensembles
Jorge Muruzábal (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 836-841).*
www.irma-international.org/chapter/evolutionary-mining-rule-ensembles/10917

Association Rule Mining
Yew-Kwong Woon (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 76-82).*
www.irma-international.org/chapter/association-rule-mining/10801

Visual Data Mining from Visualization to Visual Information Mining
Herna L. Viktorand Eric Paquet (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 2056-2061).*
www.irma-international.org/chapter/visual-data-mining-visualization-visual/11102

"I Would Like Other People to See His Stories Because He Was Woke!": Literacies Across Difference in the Digital Dialogue Project
Julie Rustand Sarah Alford Ballard (2020). *Participatory Literacy Practices for P-12 Classrooms in the Digital Age (pp. 115-138).*
www.irma-international.org/chapter/i-would-like-other-people-to-see-his-stories-because-he-was-woke/237417

Learning Exceptions to Refine a Domain Expertise
Rallou Thomopoulos (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1129-1136).*
www.irma-international.org/chapter/learning-exceptions-refine-domain-expertise/10963