PREDICTING INTENTION TO ADOPT B2B ELECTRONIC COMMERCE IN JORDAN: THE MODERATING ROLE OF TRUST AND DEPENDENCY

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DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
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By

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(College of Business)
Universiti Utara Malaysia

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ABSTRACT

Business to Business Electronic Commerce (B2B EC) has great potentials to extend firms’ competency and efficiency. As such, Jordan has an objective to increase the diffusion of this technology. Despite extensive government efforts, the adoption of B2B EC is still limited. Consequently, there have been extensive efforts to better understand the phenomena. Yet, documented findings regarding the determinants of the adoption are not altogether consistent. To provide more insight, this study developed a research model utilizing the Technological, Organizational, and Environmental (TOE) framework to identify the determinants of the firms’ propensity to adopt B2B EC. Since B2B EC is an inter-organizational phenomenon supporting transactions of partnerships, this study emphasizes the context of partnership characteristics. Grounded on inter-organizational theories, this study hypothesized that partnership characteristics, namely trust and dependency, moderate the role of TOE motivating factors. Moreover, given that B2B EC is used on both sides of the buyer/seller relationship, this study examined the differences and similarities in the perception of the marketing and purchasing departments regarding the determinants of the B2B EC adoption. A total of 798 questionnaires were self-administrated to marketing and purchasing managers in 462 firms that have large registered capital in Jordan. In total, 114 marketing and 125 purchasing managers participated in this study. Marketing and purchasing responses were analyzed separately using the Partial Least Squares approach. The result revealed that the marketing and purchasing departments do have different views regarding the determinants of the adoption, specifically in terms of the role of Relative Advantage and Competition Pressure. Moreover, the results showed that the moderating role of trust was less pronounced. Meanwhile, the moderating role of dependency was partially supported particularly in the purchasing perspective. These findings have demonstrated how dependence asymmetries between trading partners may change the adoption motivations. They further explain the importance of considering the views of the business partner for the adoption to be done successfully.

Keywords: business to business electronic commerce, innovation diffusion, technological, organizational, and environmental framework, resource dependency theory.
ABSTRAK


Kata kunci: Business to Business Electronic Commerce, difusi inovasi, Rangka Kerja Teknologi, Organisasi, dan Persekitaran (TOE), Teori Kebergantungan terhadap Sumber.
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<tr>
<td>AVE</td>
<td>Average Variance Extracted</td>
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<tr>
<td>B2B EC</td>
<td>Business to Business Electronic Commerce</td>
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<td>CB-SEM</td>
<td>Covariance-Based Structure Equation Modeling</td>
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<tr>
<td>CCD</td>
<td>Companies Control Department</td>
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<tr>
<td>DOI</td>
<td>Diffusion of Innovation</td>
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<tr>
<td>EDI</td>
<td>Electronic Data Interchange</td>
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<tr>
<td>ESC</td>
<td>Electronic Supply Chain</td>
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<tr>
<td>ESCWA</td>
<td>Economic and Social Commission for Western Asia</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>HOC</td>
<td>Higher-Order Construct</td>
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<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
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<td>IOIS</td>
<td>Inter-Organizational Information Systems</td>
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<tr>
<td>IOS</td>
<td>inter-organization system</td>
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<td>IS</td>
<td>Information System</td>
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<td>Information Technology/Information Systems</td>
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<td>MOICT</td>
<td>Ministry of Information and Communications Technology</td>
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<tr>
<td>NRI</td>
<td>Networked Readiness Index</td>
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<tr>
<td>OR</td>
<td>Organization Readiness</td>
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<tr>
<td>PLS</td>
<td>Partial least square</td>
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<tr>
<td>RAT</td>
<td>Reasoned Action Theory</td>
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<td>RDT</td>
<td>Resource Dependence Theory</td>
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<tr>
<td>REACH</td>
<td>Jordan's first national information technology strategy</td>
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<td>Acronym</td>
<td>Full Form</td>
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<td>RFID</td>
<td>Radio-Frequency Identification</td>
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<td>Small and Medium-Sized Corporation</td>
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<td>Statistical Package for Social Sciences</td>
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<td>Technology Acceptance Model</td>
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<td>TPB</td>
<td>Theory of Planned Behavior</td>
</tr>
<tr>
<td>TTF</td>
<td>Technology-Task-Fit</td>
</tr>
<tr>
<td>UTAUT</td>
<td>Unified Theory of Acceptance and Use of Technology</td>
</tr>
<tr>
<td>VAN</td>
<td>Added Network based</td>
</tr>
<tr>
<td>VB-SEM</td>
<td>Variance-based Structure Equation Modeling</td>
</tr>
<tr>
<td>WSC</td>
<td>Web Supply Chain</td>
</tr>
<tr>
<td>XML</td>
<td>Extensible Markup Language</td>
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</table>
CHAPTER ONE: INTRODUCTION

1.1 Research Background and Motivation

Nowadays, Information Technology (IT) is widely diffused in a firm's internal operations and processes. It is rare to find firms that do not automate all or some of their internal functions such as accounting, production, and/or human resources activities. The revolution in Information Communication Technology (ICT) offers many opportunities that enable firms to improve their relationship among customers, suppliers and other business partners. With this advancement, it seems there is no technical barrier that could prevent organizations from taking steps to transcend organizational borders and connect with trading parties electronically. In general, IT that mediates the inter-firm transaction is labeled in different ways. For instance, prior studies label these technologies as inter-organization information systems (Sila, 2010), e-commerce systems (Cullen & Taylor, 2009), e-business systems (Wiengarten, Humphreys, Mckittrick, & Fynes, 2013) or electronic supply chain management systems (Lin, 2013a). This study categorizes these technologies as Business to Business e-commerce (B2B EC), since it organizes transaction between businesses (Sila, 2013).

B2B EC systems provide several potentials. They enhance the transmission of information and communication in real time (Dedrick, Xu, & Zhu, 2008; Ranganathan, Teo, & Dhaliwal, 2011; Wu, Zsidisin, & Ross, 2007; Yao & Zhu, 2012). In addition, they enable tighter business process’ integration between trading partners. In this manner, B2B EC assists in increasing information availability, processing capacity, and coordination efficiency. These potentials can also provide
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