

THE IMPACT OF E-COMMERCE ON THE SUPPLY CHAIN B2B IN IRELAND

(Impactul comerțului electronic asupra lanțului de distribuție B2B în Irlanda)

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Abstract

The ability to redefine inter-firm relationships and processes, internet-enabled and other Business to Business (B2B) mechanisms facilitate the integration and management of inter- or intra-organisational business processes that produce value for customers. B2B e-commerce in supply chain management (SCM) becomes more important due to its performance implications.

Process integration involves upstream and downstream coordination with supply chain partners. In these interactions, supply chain B2B e-commerce helps minimize complexity and increase flexibility while enhancing a higher degree of communication and operational efficiency.

Keywords:

- Supply chain management;
- Business to Business marketing;
- Electronic commerce;
- Business performance;
- Delivery lead-time;
- Globalization.

Rezumat

Abilitatea de a redefini relațiile și procesele între firme, mecanismele Business to Business (B2B) facilitează integrarea și managementul proceselor manageriale intra și interorganizaționale care produc valoare pentru clienți. Comerțul electronic B2B în managementul lanțului de distribuție devine din ce în ce mai important datorită implicațiilor de performanță.

Integrarea procesuală implică coordonarea în aval și în amonte cu partenerii lanțului de distribuție. În cadrul acestor interacțiuni, lanțul de distribuție B2B al comerțului electronic ajută la minimizarea complexității și mărește flexibilitatea concomitent cu asigurarea unei mai bune comunicări și eficiențe operaționale.

Cuvinte cheie:

- Managementul distribuției;
- Marketingul de tip B2B;
- Comerțul electronic;
- Performanța afacerii;
- Livrare lead-time;
- Globalizarea.

Introduction

The globalisation of markets, growing interpenetration of economies, rapid technological change, volatility of demand, wider variety of products available, faster delivery, quicker product development and low cost manufacturing indicate new type of competitive environment. Recent market trends indicate that e-commerce becomes an order qualifying criteria and businesses need to incorporate it as an integral part of their supply chain management. The importance of eBusiness in developed economies is reflected in the fact that €77 billion worth of business was transacted in 2003 on-line within the E.U. and that figure is forecast to grow to €2.2 trillion by the end of 2006, equivalent to 22% of all E.U. industrial trade (Forrester Forecast).

The use of advanced Information Communications Technologies (ICTs) has become the most significant driver of world economic growth. ICTs are the catalysts through which enterprise, whether traditional or new, can create sustained competitive advantage for its products and services on world markets. In reaction to this reality, businesses have invested heavily in IT; many firms worldwide have succeeded in improving customer service levels with their e-commerce initiatives to transform business processes. Levi's for example, had difficulty meeting Wal-Mart's demand schedule, facing major problems with on-time delivery record. B2B e-commerce has enabled the company to improve its demand replenishment systems, besides facilitating collaboration on demand forecasting, product modifications and order-planning with Wal-Mart. As a result, Levi's has improved its on-time delivery record from just 65% to around 95% rates. Ford Motor Company, on of the

top car manufacturers in the world, implemented many e-commerce initiatives to harmonize its business process. It designed a web interface, called Covisint, to link front-end sales to the back end ERP systems and developed a business to business portal for its supplier to fill orders and provide financial information electronically on a real-time basis. Among the various benefits the company has reduced its customer service costs and improved their delivery performance.

Ireland's enterprise culture is grounded in strong pro-enterprise policies. These include a stable political and policy environment, prudent management of the public finances, investment in key infrastructures, the provision of a well educated and flexible workforce, a successful system of social partnership, a low business corporation tax regime and the development of an open economy exporting some 81 % of GDP (eBusiness Monitor Report, 2003).

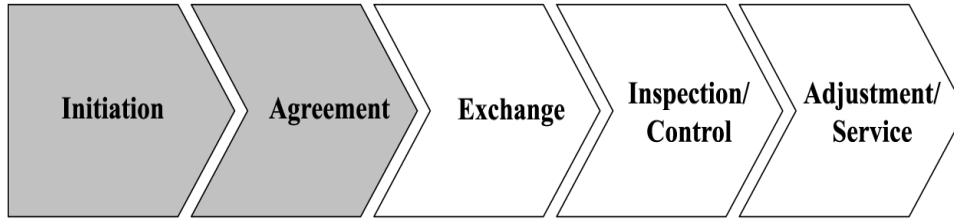
1. E-commerce

Wigand (1997) defines e-commerce as "any form of economic activity conducted via electronic connections". As we can see this definition highlights two important aspects of e-commerce: economic activity and electronic connections.

Delfmann et al (2002) divides an economic transaction into five phases:

- (1) Initiation;
- (2) Agreement;
- (3) Exchange;
- (4) Inspection/control;
- (5) Adjustment/Service

(see Figure 1)



Source: Delfmann et al (2002)

Figure 1. Phases of an economic transaction

The second element of e-commerce is the electronic connection, which can range from phone lines, telegraphic wires to fibre optic cables and satellite connection. Combining the two elements defined above, e-commerce can be expressed as the two way communication via electronic networks that allows the automated processing of economic transaction data. Accordingly to Delfmann et al (2002) e-commerce can be identified in nearly every type of economic relationship (see figure 2).

By referring to the figure above, five general types of e-commerce transactions can be identified:

- (1) Business to business (b2b);
- (2) Business to consumer (b2c);
- (3) Consumer to consumer (c2c);
- (4) Business to administration (b2a);
- (5) Consumer to administration (c2a).

Mahadevan (2000) identified within these types of transaction three

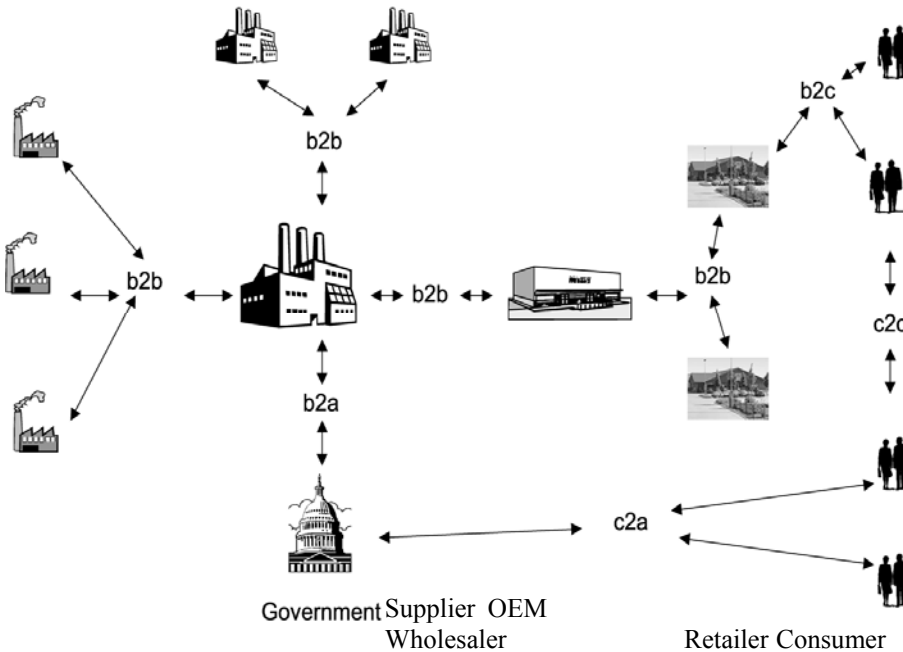


Figure 2. Types of E-commerce

Adapted from Delfmann et al (2002)

basic classes of business models:

- (1) Portal
- (2) Market maker and
- (3) Product/Service provider (see figure 3 for examples)

Product/service providers are companies that sell directly via the internet. Depending on the type of good/service, the result can be the physical or digital delivery of goods or

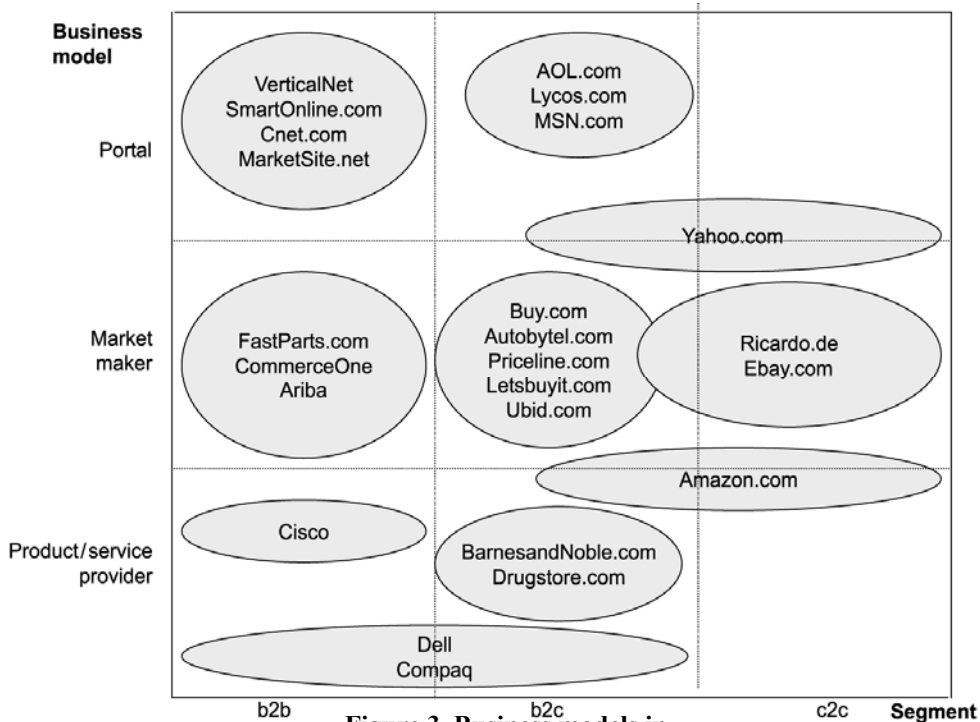


Figure 3. Business models in E-commerce

Portal offer information, search services for their customers and serve as the entrance into the e-market. Their revenues streams mainly come from advertisements and provision fees for channelling Web traffic to Web sites of product/service providers.

Market maker enables economic transactions between a community of customers by offering mechanisms for the secure and trustworthy conduct of such transactions. Their source of revenues can be provision fees per transaction or one-time charges for developing and establishing electronic marketplaces.

the performance of some kind of service.

2. Supply Chain B2B e-commerce

E-commerce is a revolutionising element in SCM and is used to link suppliers, manufacturers and downstream customers providing considerable additional value to activities. In a B2B context involves a wide spectrum of activities including purchasing, supplier management, sales activities, payment management, service and support. The use of e-commerce in SCM involves a mix of Internet and other electronic technology in order to facilitate integration and management of

core business processes between key supply chain partners.

Conclusions

E-commerce provides a fundamentally new way of conducting commercial transactions and has far-reaching economic and social implications. It will affect industry structures and competition in home and international markets.

It presents major new business opportunities for Irish-based enterprises and for the development of new sectors. It also poses significant threats for

enterprises that do not prepare for the fundamental changes that are taking place. At a national level there is a need to ensure that the required legal, regulatory and facilitatory business environment is conducive for the enterprise sector to fully exploit the opportunities and to develop Ireland as a leading location for e-commerce-driven investment. At the level of the development agencies, it requires a new approach to the development of national enterprise policies and new actions.

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