The Obstacles of e-Commerce in Developing Countries

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Abstract. This paper is to show the obstacle issues, which must be addressed and resolved so as to enable developing countries to take in the evolving digital world economy. The presentation of various obstacles should enable to obtain practical advice for replication or adaptation in developing countries. By the same token, industry in developing countries should be encouraged to innovate hardware and software better towards the needs and circumstances of developing countries. Governments in developing countries should be made aware of the need for creating a suitable and enabling environment for e-commerce.

1. Introduction

The environment about the potential of e-commerce depends upon the idea that the major obstacle to increased sales is the cost of making products known to potential buyers in industrialized countries. What is particularly relevant for developing countries is the fact that the transfer of information over the Internet operates largely irrespective of physical location and that the basic hardware and software are widely available and relatively cheap. According to this view, therefore, Internet-based e-commerce should offer particular advantages for firms in developing countries. Before the web sites shake out in the year 2000, this vision of the benefits of this new form of transacting was accompanied by the expectation that firms in developing countries would achieve widespread access to information and communication technology known as ICT. Growing use of digital technologies as a result of actions to tackle the ‘digital divide’ was expected to enable much greater access to global markets for smaller and larger firms in developing countries. The spread of the Internet and growing use of the World Wide Web were expected to generate new economic activity through the use of open networks and e-marketplaces.

This paper makes explicit some of the expectations and assumptions surrounding the optimistic views of the potential of e-commerce for firms in developing countries. It considers the policy implications that arise from these expectations and assumptions. It also examines the strength of the evidence supporting projections of rapid growth in e-commerce transactions.

2. Analytically Focus in E-commerce

Analytically, the surge of enthusiasm for B2B e-commerce reflected a tendency to focus inordinately on the impact of technology. Alternatively, the focus was on the ways that the uses of technology might impact on transaction costs and the role of intermediaries within industry value chains. The complexity of industrial sectors was treated as an issue subsidiary to the technical solutions and to the measurement of transaction costs. Transaction cost analysis suggests that if ICT use provides a basis for reducing transaction costs, then firms will benefit from reduced barriers to international trade [1]. Many of these transaction costs are associated with the need to co-ordinate relationships between distant buyers and sellers – searching for products, services, sellers, and buyers; negotiating and fulfilling contracts; ensuring that contract terms are met; and adapting contracts to changes in circumstances [2]. The use of ICTs is also expected to alleviate information asymmetries between buyers and sellers by making it easier to monitor the performance of firms in the value chain. Towards the end of the 1990s, there were high expectations that E-commerce would encourage substantial changes in the way firms buy and sell products and that this would be associated with major reductions in the costs of transacting on the international market. It was suggested that buyers and sellers could eliminate the intermediaries, establish one-to-one on-line trading and rationalize marketing channels; electronic trading would create opportunities for developing country producer firms to enter new markets and to strengthen their positions in international trade. E-market places hosted on the Internet are expected to offer advantages to these firms. As a result of the rapid low cost, the distance-insensitive transfer of information reduces the costs of trading across geographical boundaries, the spread of open types of Internet-
based e-marketplaces; and the availability of digital technologies and software applications.

3. E-commerce: Assumptions and Expectations

The idea that e-commerce would radically transform the way firms do business can be summed up in four propositions about how this form of e-commerce is expected to work. These are taken from the publications of just two UN organizations concerned with trade and development, United Nations Conference on Trade and Development (UNCTAD) and International Trade Center (ITC). However, they broadly reflect the general state of the expectations for e-commerce.

3.1 E-commerce works through e-marketplaces

E-commerce marketplaces are on-line spaces where many buyers and sellers can come together in one trading community and obtain sufficient information to make decisions about whether to buy or sell. UNCTAD 2001 *E-commerce and Development Report* suggested that e-marketplaces would become the dominant component of e-commerce activity and argued that e-markets involve a large number of buyers and sellers that engage in many-to-many transactions and relationships. They created a trading community in which buyers’ orders are matched with sellers offer and the trading partners benefit from other forms of collaboration [3].

3.2 E-markets will be supported by complementary business functions

When buyers and sellers are to make decisions to transact on-line, then sufficient information must be provided on-line for the transaction to be completed and the systems must be in place to arrange binding contracts and payment. E-marketplaces and the implementation of their business models rely to a very large extent on technology infrastructure. The market maker must possess or have access to a technology that is capable of handling the full range of commercial processes from ordering and settlement. The technology must support transactions involving large numbers of users over the Internet and be capable of handling complex business practices, user relationships and integration with third-party commercial applications [3].

Furthermore, effective on-line business also needs the complementary services required to complete transactions. The types of services that may be offered by the marketplaces include the ability to process payments, credit financing, credit validation, tax laws, trade restrictions, integrated business management accounting, on-line exchange of information and transaction-supporting documents. The supporting documents are such as invoices and shipping documents, import and export compliance providing on line linking to transportation, logistics and other third-party services to purchases, support for multi-currency and multi-language transactions, tariffs and tax data collection and management; automated landed cost calculations, customs compliance and documentation [3].

3.3 E-commerce offers greater returns to firms in developing countries

E-commerce offers two important advantages for developing country firms. First, e-commerce related transaction costs are less sensitive to distance than traditional marketing channels, so access to global markets is made easier. Second, by simplifying and making market channels more efficient, E-commerce should enable developing country firms to retain a larger share of the final consumer price of products. The process is not necessarily one of dis-intermediation, but rather one of more efficient, Internet-based intermediation. Traditional marketing and export channels for primary products tend to be inefficient and dominated by multiple intermediaries. Developing countries, using existing local commodity exchanges and commodity export associations as a foundation, can use B2B on-line trading as a means of transforming existing commodity marketing systems to great advantage [3].

3. 4 E-commerce particularly helps smaller firms to enter global markets

Reductions in the costs of accessing global markets are particularly factors for the small and medium-sized enterprise (SME). E-commerce opened new commercial opportunities to the export-oriented enterprises. In particular, it empowers SMEs, allowing it to participate in international markets where previously market entry and promotion costs were prohibitive. It enables the firm to source production inputs more expeditiously, to streamline its own supply- and export-distribution chains and to reduce business transaction costs [4]. E-commerce gives (SMEs) the ability to access international markets that used to be difficult to enter due to high transaction costs and other market access barrier [5]. Not all analysts and policy makers held the expectations reflected in these propositions. Indeed, even in the publications from which these propositions are taken there are more views on the different forms that E-commerce might take and the obstacles that might limit its growth. Nevertheless, these nuances were largely submerged in the wave of optimism about the impact of E-commerce. Both analytical and business forces drove this optimism.

4. The obstacles for e-commerce optimism

This study is mainly concerned with the diversity of e-commerce applications and their implications for access by developing country firms to global markets. Given the range of e-marketplaces that were being hosted, it was also important to consider three aspects of their features. The research strategy distinguishes between:

(i) information content and services for transaction preparation;

(ii) information content and services for transaction completion; and

(iii) the means of access to the e-marketplace.

For example, in the case of transaction preparation, information may be available about products and trading partners but it may not be sufficient for firms to decide whether or not to trade. The quality and the timeliness of the information will affect whether it can be used to make decisions about whether to buy or sell. Some e-marketplaces provide only trade leads or classified ads that must be followed up using e-mail, hyper-links, the telephone, fax or the post.
Other e-marketplaces provide firms with access to on-line auctions or catalogues that may enable them to make quick decisions about whether to buy or sell.

The evidence base for the prevailing assessment of e-commerce and the consequent policy priorities was limited. Three types of evidence were marshaled to support the idea that on-line trading was developing rapidly across a diverse range of business sectors:

1. Anecdotes about the development of e-marketplaces. These stories were subject to bias because the providers of e-marketplaces had an interest in talking up their successes as part of the process of attracting new business. Furthermore, the success of one type of e-marketplace would not necessarily indicate that other types of business could be successfully transacted on-line. At the most basic level, data on the development of e-commerce (such as the sale of books, music and airline tickets) were cited as an indication of the potential for e-commerce.

2. Many discussions of the potential of e-commerce for developing countries quoted predictions of its likely growth that were circulating in various reports. Companies such as eMarketer, Forrester Research, frequently projected growth rates of e-commerce of 100 per cent per annum. Different bodies projected different numbers, but they all projected rapid growth and the increasing importance of e-commerce relative to e-commerce.

3. In the absence of evidence about e-commerce, data on the spread of telecommunication services and Internet hosts and users were used as proxies for the growth of Internet-based e-commerce. Many reports also relied on indicators of e-commerce growth or on the availability of Internet Web sites offering products as an indicator of B2B growth prospects.

The development of various types of e-commerce is likely to differ depending on the existing structure of an industrial sector and its value chain. Earlier studies of the development of electronic trading networks suggest that there is scope for the elimination of some types of intermediaries, but that there are often new roles for existing and new intermediaries in the value chain. The costs of transacting may increase or decrease depending on how e-commerce is introduced and whether it is developed in open or restricted electronic environment [6].

Studies that provide empirical evidence on the development of e-commerce suggest that a cautious approach to assessing its benefits and opportunities for firms in developing countries is important. By providing information about how e-marketplaces actually operate and about how firms are using Internet applications to support their business activities, this report helps to fill a major gap in the evidence base.

5. Conclusions
The evidence base for the prevailing assessment of e-commerce was limited. Three types of evidence, information contents and services for transaction preparation; information content and services for transaction completion; and the means of access to the e-marketplace were marshaled to support the idea that on-line trading was developing rapidly across a diverse range of business sectors.

A more complete understanding of the potential for e-commerce to facilitate the access of developing country firms to global markets requires information from the firms and other key informants.

The key issue for e-commerce is trust. If firms are to trade with ‘strangers’, they must be confident about both the reliability of the trading partner and the product information. The vast majority of e-marketplaces that we examined provided no assurances in these respects. Buyers were almost entirely dependent upon sellers for information about the products. The e-marketplace providers were not employing two possible means of resolving this problem. First, they were not willing to assume the role of resellers or guarantors of either product or payment. The more open the e-marketplace, the more risky these roles become. Second, the development of third party trust services as guarantors of payment and providers of independent checks on product quality was incipient, at best.

6. References