E-Commerce and E-Trade: Policy Issues and Strategy Perspective for India

P. Muthaiyan*, A. Abdul Raheem** & K. Sambasivam***

INTRODUCTION

Globalization and the new ‘digital economy’ together are having a major impact on the global economy. National markets, including in developing countries, have been affected by changes in the global economic environment, and further such changes will continue to affect enterprises and citizens throughout the world. The impact of e-commerce for developing countries is at present mainly in the international trade sector. Studies indicate that over the past few years the import and export industries have grown significantly, and, therefore, the impact of e-commerce would be significant. E-commerce will also have a significant impact on the services sector as not only is this the fastest growing sector today, it is also the sector with the greatest potential for offering digitised service and transactions. For several countries this is of particular relevance as the majority of their workers are employed in the services sector.

The potential of e-commerce is no more a matter of debate. From the world of hype and fantasy it has moved to that of digital reality. Since e-commerce already affects the economic relations between and within countries and companies, and will continue to do so more and more, it has to be seen as a matter of key policy consideration. As e-commerce growth becomes more and more significant, countries such as India must not only address and appreciate its potential for the growth of trade and industry but also as a means of survival in the new world of e-commerce-based trade and business. The ability to do so will depend on several factors, the most important of which will be infrastructure, both physical (the
telecommunication network) as well as the financial and legal framework, including a business and trade environment conducive to e-commerce. It will also depend on the availability and price of hardware (computers, routers, switches, etc.) and software, as well as the human resource and education standards and policies of the country.

**WTO RECOMMENDATIONS**

Developing countries, such as India, also need to prepare themselves for the future multilateral trade agenda, in particular the so-called new issues on which the Second Ministerial Conference of the World Trade Organization (WTO) in May 1998 asked the WTO General Council to formulate recommendations. One such issue is e-commerce which is presently under study in the WTO. E-commerce is not only a new technology and a new frontier for global business and trade, it is also still evolving. Developing countries, therefore, need to understand, and assess carefully from their perspective, the pros and cons of the different proposals and issues in this connection that have emerged at the WTO. They need to comprehend the possible impact of this new phenomenon on their economies and work out appropriate strategies and responses to it. However, unlike most other trade-related agenda items before the WTO, this is an area that is not just new but also one where many of the implications are as yet unclear. It is essential, therefore, to create a policy and regulatory environment that favours the development of e-commerce and harmonises national approaches in diverse areas such as telecommunications, trade, competition, intellectual property, privacy, and security.

**CONCEPT OF E-COMMERCE**

It is important to elaborate on the definitions of e-commerce as that will help determine the scope and perspective of the policy agenda in this connection. E-commerce has been simply defined as conducting business on-line. The Organization for Economic Cooperation and Development (OECD) defines electronic commerce as a new way of conducting business, qualifying it as business occurring over networks which use non-proprietary protocols that are established through an open standard setting process such as the Internet. In the WTO Work Programme on Electronic Commerce, defined, electronic commerce encompasses all kinds of commercial transactions that are concluded over an electronic medium or network, essentially, the Internet. E-commerce covers three main types of transactions, i.e. business-to-consumer (B2C), business-to-business (B2B), and business-to-government (B2G). It is this business and transactional definition that this paper will base its analysis on. From a business point of view, e-commerce is not limited to the purchase of a product. It includes, besides e-mail and other communication platforms, all information or services that a company may offer to its customers over the Net, from pre-purchase information to after-sale service and support.
MAJOR USES OF E-COMMERCE

There are essentially two major uses of e-commerce. The first is to use it to reduce transaction costs by increasing efficiency in the use of both time and procedures, and thus lowering costs. The other is to use it both as a marketing tool to increase sales (and customer services) as well as to create new business through it—for example, Information Technology (IT) enabled business, call-centre, software and maintenance services, etc. as well as ‘digital commerce’. It is thus a tool for both existing businesses as well as an opportunity for new business, both for existing companies as well as for new entrants. Though the future of e-commerce may still be unpredictable, it should be noted that in possibly a short span of time, all businesses will need to know how to make use of it—much as most businesses had to learn to adapt to the phone and fax, only more so as more and more trade transactions and supply chains become digital and on-line.

E-commerce, however, is more than just electronics and commerce added together. It represents an entirely new way of doing business over a medium that changes the very rules of doing that business. It is, therefore, far more about strategy and business management than it is about technology. In order to understand e-commerce and its implications for developing countries, it is important, therefore, to see it from the perspective of the transactional aspects of e-commerce, i.e. those that represent the business between the different players, as well as the framework aspects, i.e. those basic. From a business point of view, e-commerce is not limited to the purchase of a product. It includes, besides e-mail and other communication platforms, all information or services that a company may offer to its customers over the Net, from pre-purchase information to after-sale service and support. There are essentially two major uses of e-commerce. The first is to use it to reduce transaction costs by increasing efficiency in the use of both time and procedures, and thus lowering costs. The other is to use it both as a marketing tool to increase sales (and customer services) as well as to create new business through it—for example, Information Technology (IT) enabled business, call-centres, software and maintenance services, etc. as well as ‘digital commerce’. It is thus a tool for both existing businesses as well as an opportunity for new business, both for existing companies as well as for new entrants. Though the future of e-commerce may still be unpredictable, it should be noted that in possibly a short span of time, all businesses will need to know how to make use of it—much as most businesses had to learn to adapt to the phone and fax, only more so as more and more trade transactions and supply chains become digital and on-line.

OUTLINING E-COMMERCE IN INDIA

So what should we understand by e-commerce in the Indian context? It is important to define this as it will help us focus on the areas where more
thrust is required as well as help us understand the dimensions of the issue. Though e-commerce has a definite developmental context, for the purpose of this paper, its commercial and trade-related implications will be focused upon. India’s fame in the digital world is on account of its software exports and its software professionals (who themselves are often part of the service export). In the last couple of years there has been a distinct shift in the Indian IT world—both external and internal—from software towards electronic commerce. For the purpose of this study therefore, e-commerce and its definition for India encompasses three areas. Software exports (body shopping to e-commerce services), Web-enabled services (transcription services to call centres), e-business and e-trade (dot.coms, portals, services, and old and new economy global supply chains)

In the first area, a pronounced shift can be seen from the earlier mainly low-end software solutions to definitive sectoral software projects for businesses, as well as e-commerce software and services for mostly the external sector.

The second area, i.e. web-enabled services, is a result of the proliferation of the Internet globally on the one hand and the ‘death of distance’ for industry and services in the West that is leading companies to locate their call-centers and other ‘back-office’ services in far flung locations on the other hand. Such services include medical transcription, insurance claim processing, call-centers, web-services, and a whole host of emerging opportunities in the area of digitisable business processes.

The third area is the hard-core e-business and e-trade services and projects. These include new B2C and B2B websites and portals as well as the e-business that Indian domestic companies are now starting. On the e-trade side are the initiatives where Indian trade and industry is beginning transactions for export and import as well as the digital processes being introduced in Indian regulatory bodies?

A FRAMEWORK FOR STRATEGY FORMULATION

In formulating a national strategy for e-commerce, it is important to bear in mind, if not actually go through, the set steps of a classical policy formulation framework. These would inter alia include: Deciding on promoting e-commerce (agenda setting) — this requires e-wareness, Deciding on issue filtration, including defining the stakeholders in the process, Defining the issue and forecasting the goal, Setting objectives and priorities (what do we want and how will we know we have it), analysing the options (not only what is easy but being open to alternatives), Implementing the policy and strategy, Monitoring and evaluating (in a participatory and analytical manner) and maintaining, adjusting and re-evaluating—continuously.

It is also important here to distinguish between policy and strategy. Though one follows from the other, it is necessary for an e-commerce export strategy framework to aim for a focused target oriented approach rather
than the usual ‘volume of promotion’ or the ‘muddling through’ approach. Developing countries such as India has neither the resources nor the time to aim at broad-band or ostensibly comprehensive strategy aimed at transforming their entire economies to match the new digital age. In this context, short-or-medium term strategies are essential to gain from the trade and developmental benefits of e-commerce.

**Towards a Strategy for India**

Whether as a tool for development and governance domestically, or to promote and increase export growth and international trade, India needs to adopt a proactive role. It needs to ensure that the benefits of e-commerce accrue to those trying to overcome economic marginalisation due to geographic, financial, technological, or educational handicaps. Indeed, the need to close the gap between those with abundant information at hand and the ‘information poor’ provides a strong rationale for the development of e-commerce as a national objective.

As has been brought out in this study, it is essential to create a policy and regulatory environment that favours the development of e-commerce and harmonises national approaches in diverse areas including telecommunications, trade, competition, intellectual property, privacy and security. Since the key to this is the telecom and Internet network, proactive and supportive policies are a must to reap the benefits of this emerging opportunity. Research is, therefore, required to examine different initiatives worldwide and their relative success and adaptability for India.

**Development Objectives**

A developing country such as India faces a special challenge and responsibility to create a conducive policy environment that, on the one hand, allows for the development of e-commerce and, on the other hand, ensures the social objective of providing access and benefits for those that cannot afford it. Electronic governance, public Internet terminals, rural access at subsidized cost, eWaresness etc. are some of the initiatives that must be considered and promoted. Simultaneously ensuring that the regulatory approaches are transparent, harmonised, and independent of specific technologies along with open and competitive telecommunications policies is necessary in order to attract the investment needed for telecom and e-commerce promotion.

**E-commerce and E-trade**

The projections for the future show IT exports of US$ 50 billion, with 10 billion coming from e-business. The reality of today is that all or most of our success in the IT arena comes directly from software programming. Hard-core e-commerce or e-trade is yet to pick up. This is the danger. If our trade does not become e-enabled quickly, what to speak of new opportunities, even our existing trade will stand threatened as more and more of
international trade converts to digital transactions and commerce via the Internet. In order to analyse which of our trade goods would be well-suited for switching to the B2B global supply chains of the future, it may be of use to view our existing trade basket and see which of the commodities may possibly manage this easier.

Such digital supply chains essentially require automation, of a very high degree, of the entire supply chain. The factors that could ensure a greater chance of compliance and adaptability would be the following: (a) Urban based exporter location for easier access to computerization and the Internet, (b) The larger enterprises moving first as they alone have the surplus resources for digitization and introduction of ERP and EDI type automation, (c) Where the Trading House interface is more as they could be the catalyst in the process or themselves carry out or facilitate the transaction (d) Where export is to fixed or restricted number of buyers in an industry that is switching to digital procedures and digital supply chains. Applying this criterion to India’s major export items may give an indication of those that may become e-enabled easier/quicklier. Table 1, presents a matrix that attempts to flag the compatibility for e-commerce transactions of the top 12 product groups in India’s export basket. It is these products that will have to become e-compatible for e-trade.

From the above analysis it would appear that 9 out of the 12 major product groups are either medium or high in their possible compatibility to participate in e-commerce. On the positive side this shows the potential but on the negative side it indicates the danger for our existing export basket of goods. We must become e-compatible for e-commerce and e-trade, lest we lose the market share that we presently have. Unfortunately, the ground situation and data on the same is both lacking in terms of interest and compilation. This needs to address by the Ministry of Commerce and Industry on the one hand and trade and industry associations on the other.

**E-commerce as a Non-tariff Barrier**

For developing countries such as India, e-commerce can itself become a non-tariff barrier in due course. As more and more international trade and supply chains become digital over the Internet, those enterprises that are not a part of them either stand to lose the trade opportunity or else pay a higher price or charge for the service or trade deal (as a ‘fine’ for not being e-compatible). Already in India there are several examples of suppliers receiving payments electronically and banks having to make special dispensations (and, therefore, charging an additional fee) from them till such time as the banking regulations and arrangements for such transactions are not in place.

**Towards a WTO Negotiating Position**

The issues of e-commerce and its implications on the international trade regime are of technology and access. Does the global environment ensure
Table 1
Major Export Products and their Compatibility for E-commerce Transactions

<table>
<thead>
<tr>
<th>Product</th>
<th>Value in $</th>
<th>% Share in Total</th>
<th>Compatibility to Criteria</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gems and jewellery</td>
<td>5904.05</td>
<td>17.54</td>
<td>High</td>
<td>Limited no. of exporting community despite large number of units</td>
</tr>
<tr>
<td>Engineering goods</td>
<td>3803.51</td>
<td>11.30</td>
<td>High</td>
<td>Several units have already computerized</td>
</tr>
<tr>
<td>Readymade garments</td>
<td>4444.42</td>
<td>13.20</td>
<td>Medium/High</td>
<td>Pressure from foreign dept. stores to start e-commerce</td>
</tr>
<tr>
<td>Cotton yarn, fabrics etc.</td>
<td>2773.78</td>
<td>8.24</td>
<td>Medium</td>
<td>Dispersed buyers not necessarily in developed countries though producers could lead the way</td>
</tr>
<tr>
<td>Chemicals, pharmaceuticals etc.</td>
<td>2646.19</td>
<td>7.86</td>
<td>High</td>
<td>Global chains already emerging</td>
</tr>
<tr>
<td>Leather and manufactures</td>
<td>1653.36</td>
<td>4.91</td>
<td>Medium/High</td>
<td>Pressure from buyers</td>
</tr>
<tr>
<td>Marine products</td>
<td>1038.24</td>
<td>3.08</td>
<td>Medium</td>
<td>Processing houses need to computerise</td>
</tr>
<tr>
<td>Ores and minerals</td>
<td>890.94</td>
<td>2.64</td>
<td>Medium</td>
<td>Global e-market places emerging</td>
</tr>
<tr>
<td>Oil meals</td>
<td>454.56</td>
<td>1.36</td>
<td>Low</td>
<td>Dispersed producers</td>
</tr>
<tr>
<td>Rice</td>
<td>1473.90</td>
<td>4.37</td>
<td>Medium</td>
<td>Leading exporters need to be activated</td>
</tr>
<tr>
<td>Rubber, glass, etc.</td>
<td>808.07</td>
<td>2.40</td>
<td>Low</td>
<td>Dispersed producers</td>
</tr>
<tr>
<td>Man-made yarn, fabrics made-ups</td>
<td>720.82</td>
<td>2.14</td>
<td>Medium</td>
<td>Dispersed buyers not necessarily in developed countries. Producers already computerising</td>
</tr>
<tr>
<td>Total (above)</td>
<td>267111.84</td>
<td>79.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (incl. Others)</td>
<td>33658.55</td>
<td>100.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: for trade data: India Trade Promotion Organisation, Economic and Trade Data.
equal right of entry and right of use? Unfortunately not. Can the WTO and the international agencies ensure such access to all their members? That is a far cry in reality, though a logical negotiating position. It leads to the almost obvious demand for special and preferential treatment for developing countries in any e-commerce agreement. Getting it is doubtful but negotiating for it may be useful.

Though there is little doubt that e-commerce is an important and major issue for world trade, there are several aspects of it that need to be further studied, especially from the point of view of their implications for the developing world. Most of the e-commerce and Internet technical and economic developments on the one hand and negotiations and discussions at the WTO, ITU etc. on the other, are taking place in the absence of a broader, more integrated framework which takes account of the needs of and possibilities for developing countries with regard to e-commerce and the information and communications technologies which facilitate it. Several developing countries are therefore adopting a defensive stance and are reluctant to engage in a process (at the WTO) which could lead to commitments and foreclosure of their options. Today the broader picture is still quite unclear and the costs and benefits are difficult to determine and assess. Policy-makers need to ask for the WTO work programme on e-commerce to also examine the revenue and other fiscal implications of e-commerce for developing countries, erosion of market access of developing countries, and implications of intellectual property regimes vis-à-vis electronic commerce as well as technology access at affordable cost. There are also several impediments to the availability of and access of this medium in developing countries and unless these are addressed simultaneously, the gap between the developed and developing world and that between the poor and rich will only widen. Therefore, while considering the promotion of e-commerce as part of the world trade agenda, the issues of infrastructure, investment, availability, and marginal cost of hardware and software, awareness, education, and training need to be also addressed and redressed. India has and should continue to take this stand.

On the policy front, the Indian negotiators at the WTO may not be willing to include e-commerce as another issue on the multilateral trade agenda or system. Quite obviously, because they would not like to take on any more obligations as Indian may not have the resources to meet them. The flip side of this could be that the Indian traders and exporters may lose some possible access in the West or elsewhere. Do we have sufficient data to decide on this issue? Not for the moment, as the e-commerce global implications are themselves still emerging. It should, therefore, be India’s demand to the WTO to continue to study this as part of their work programme at a global level as it may not have the resources to do it itself.

At the end of the day the Indian negotiators need to remember that India is an emerging leader in the information age. Do we need the WTO
and any agreement on e-commerce that it may come up with? Probably not. The markets in the developed world that India is accessing, and will continue to want to access, are already fairly liberal and open. It is, therefore, in India’s interest to not be ‘demanders’ on the e-commerce issue. Traditionally India has led the opposition on any or most issues raised by the US and other developed countries at the WTO. Perhaps in this case, it would gain more by not standing out as ‘opposers’ either.

CONCUSSION

E-commerce is more about strategy and business management than it is about technology; Initiatives for a strategic approach to the digital economy require a dynamic and not static approach. It is essential to create a policy and regulatory environment that favours the development of e-commerce and harmonises national approaches. Developing countries, such as India, also need to prepare themselves for the future multilateral trade agenda which will necessarily include e-commerce, for the WTO negotiations on e-commerce, India needs to ask the WTO itself to assist it in studying the full global implications of e-commerce from the developing country angle. These would include examining the revenue and other fiscal implications of e-commerce for developing countries, erosion of market access of developing countries and implications of intellectual property regimes vis-à-vis electronic commerce and economic development and technology access at affordable cost. India needs to prepare strategies to access the production and supply chains at various stages in the evolving paradigm of e-trade. India should follow the strategy formulation framework in arriving and monitoring any such plan. India must become e-compatible for e-commerce and e-trade in order to preserve its existing market share in international trade. To do this, the Ministry of Commerce should launch a work programme for studying the implications and relevance of e-commerce in different product groups and areas, including services, and for working out strategies to e-enable the Indian trade and industry.

References


ITC (International Trade Centre) (1999), Trade in Information Technology Products and the WTO Agreements, ITC, Geneva.
¾ (2000a), Electronic Commerce: Some Implications for Firms and Workers in Developing Countries, International Institute for Labour Studies, Geneva.