

**Paper Presented by Prof. Dr. Rahmat Mohamad, Secretary-General of AALCO
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At the outset I thank for inviting me to deliver the lecture on ‘*International Law on E-Commerce: Legal Issues and Impact on the Developing Countries*’, a topic that has great significance for the international community in general and developing states in particular. E-commerce has immense potential to generate wealth for developing countries. Electronic commerce and the internet represent the opportunity to leap forward to the next stage of economic development, where value is created not just by resource endowments or manufacturing might, but also by knowledge, information, and the use of technology.

I have divided my presentation into four parts.

Firstly, I would give you a brief overview of the legal regime of e-commerce with an emphasis on the UNCITRAL Model Law existing in this area.

Secondly, I would highlight the major implications for developing countries of e-commerce. Here, I would also be pointing out the major factors that have a significant bearing on the successful adoption of e-commerce in developing societies.

Thirdly, I would portray the most important constraints for the growth of e-commerce in the developing world.

Fourthly, I would move on to describe, albeit briefly, the way the World Trade Organization has dealt with this issue of e-commerce.

Lastly, I would offer my final remarks.

E-commerce represents a new model of trade based on telecommunications network carrying commercial activities. E-commerce, particularly through the internet, operates as a commercial enterprise. The recent growth of electronic commerce worldwide has brought a whole range of issues on the agenda of lawmakers, legal practitioners, regulators, international organizations, and other fora. As businesses and consumers adopt new technologies for concluding transactions without the traditional face-to-face interaction, they seek comfort in existing legal frameworks to determine their rights and obligations, tax liabilities, the level of security when providing personal and financial information across open communication networks, and ways to obtain redress in case of non-compliance or when they have been defrauded. The new technologies challenge many traditional concepts of validating and verifying commercial transactions, especially in a borderless legal environment where in many instances it remains unclear whose laws apply.

Four soft law documents have contributed to the evolving development of the international regulation of e-commerce. They are:

- 1985 UNCITRAL¹ Recommendations on the legal value of Computer records

¹ UNCITRAL is the United Nations Commission concerned with the harmonisation and unification of international trade laws so that countries can conduct international trade worldwide with the least impediment and barriers. This is done normally through conventions, model laws and guidelines which are generally accepted worldwide. UNCITRAL has adopted the United Nations Conventions on

- 1996 UNCITRAL Model Law on Electronic Commerce
- The draft UNCITRAL Uniform Rules on Electronic Signature 1999
- United Nations rules for Electronic data Interchange for Administration, Commerce and Transport

I need to stress here that while these instruments suggest rules and assistance in the use of e-commerce in international commerce, none is binding on any government.

There is no universally agreed definition of electronic commerce and hence, there are many differing definitions of e-commerce found in the literature. In its broadest term, e-commerce can be referred to as “a general concept covering any form of business transaction or information exchange executed using information and communication technologies”.

E-commerce is not only limited to buying and selling over the Internet, but is also concerned with transferring or exchanging products/services and/or information via computer networks, including the Internet, Extranet and Intranet (Turban et al. 2006). It includes activities such as servicing customer online, collaborating with business partners and exchanging business documents within an organization over the Internet or other private networks. Because of its broad coverage, e-commerce is often referred

Contracts for the International Sale of Goods, the Legal Guide on Electronic Funds Transfers, the UNCITRAL Model Law on International Credit Transfers, the UNCITRAL Model Law on International Commercial Arbitration, and others.

² D. Whitely, *E-Commerce: Strategy, Technologies and Applications*, 1998, McGraw Hill, page 1.

to as e-business³.

One of the earliest works on this subject, the UNCITRAL Model Law on Electronic Commerce⁴ (1996) does not define the term 'electronic commerce'. The Model Law employs the term 'electronic commerce' as a generic term that would include the following modes of transmission based on the use of electronic techniques:

- (i) communication by means of electronic data interchange (EDI), i.e. computer-to-computer transmission of data in a standardized format;
- (ii) transmission of electronic messages involving the use of either publicly available standards or proprietary standards;
- (iii) transmission of free-formatted text by electronic means, for example, through the INTERNET ;

A typical business-consumer commercial transaction can be divided into three main stages: the advertising and searching stage, the ordering and payment stage and the

³ Barness, S. and Hunt, B. *E-Commerce and V-Business*, Butterworth Heinemann, 2001, England

⁴ The UNCITRAL Model Law on electronic commerce, adopted in 1996, is intended to facilitate the use of modern means of communications and storage of information, such as electronic data interchange (EDI), electronic mail and telecopy, with or without the use of such support as the Internet. It is based on the establishment of a functional equivalent for paper-based concepts such as "writing", "signature" and "original". By providing standards by which the legal value of electronic messages can be assessed, the Model Law should play a significant role in enhancing the use of paperless communication. In addition to general norms, the Model Law also contains rules for electronic commerce in specific areas, such as carriage of goods. With a view to assisting executive branches of Governments, legislative bodies and courts in enacting and interpreting the Model Law, the Commission has produced a Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce.

delivery. Any or all of these may be carried out electronically and may therefore be covered by the concept of 'electronic commerce'. Thus in the WTO's Programme on Electronic Commerce, the term 'electronic commerce' is understood to mean the production, distribution, marketing, sale or delivery of goods and services by electronic means.

Though the UNCITRAL Model law is not intended to cover every aspect of the use of electronic commerce, it has been used by a number of States (as a Model) to adopt their domestic laws in this area. For example, following the Model Law on E-Commerce, the Government of India had enacted the Information Technology Act in June 2000, an act which facilitates E-commerce and E Governance in the country.

E-Commerce: Implications for Developing Countries⁵

Electronic commerce, which relies on various information and communication technologies has got the potential to improve trade efficiency around the globe and to integrate developing countries into the global economy⁶. As a result, there has been a significant growth of e-commerce in developed countries in the last two decades and

⁵ One needs to remember here that most technologies, including e-commerce were developed in Western countries that have very different backgrounds to those of developing countries. The success of technology adoption is heavily dependant on how it is used by the adopters and this in turn is affected by the fit between the technology and the adopters. Not surprisingly, technology adoption has not always been successful in developing countries.

⁶ UNCTAD - United Nation Conference on Trade and Development. "Can Electronic Commerce be an Engine for Global Growth?" *Electronic commerce and the integration of developing countries and countries with economies in transition*, International Trade, 19-23 July 1999, Geneva.

more recently in developing countries⁷.

At a general level, e-commerce offers a unique opportunity for developing nations to leap frog stages of development and also improve competitiveness, reduce transaction cost and improve customer service. The dividends of e-commerce are expected to be especially high for the smaller companies and economies, which have traditionally been hampered by limited information, high market entry costs and distance from markets. Its use by small and medium size enterprises (SMEs) in developing countries could result in the elimination of traditional barriers to trade such as the distance from markets and the difference in size between enterprises. It offers an inexpensive means of soliciting bids, receiving orders, and purchasing goods and tracking sales -- thus enabling SMEs to reduce administration costs and broaden their operations.

Emerging trends reveal that some traditionally natural resources and agricultural-based economies have over the years developed a well-educated labour force. With a low-cost and highly skilled work force they have started to move towards 'service-based' economies. The advent of e-commerce and this shift to services is a beneficial coincidence for promoting trade in the developing countries. A recent study prepared by UNCTAD shows that developing countries in different geographical regions are presently delivering on-line blueprints, designs, engineering data, drawings and maps,

⁷ Chowdhury, A. "Information Technology and Productivity Payoff in the Banking Industry: Evidence from the Emerging Markets", *Journal of International Development*, (15:6), 2003.

professional and business services, travel and ticketing services, entertainment, computer-related services and financial services.

For governments the development of e-commerce generates substantial investment opportunities in the public and private sectors in the areas of technology, training and infrastructure development. With more and more major trading companies using electronic means of communication, traders from developing countries are under pressure to adopt the new trading patterns. To explore the relevance of e-commerce and the opportunity of its growth in developing countries, it is important to understand national factors that affect e-commerce adoption. A number of such factors can be identified which are mentioned below:

Government initiatives

They are important in the adoption of e-commerce and other information and communication technologies in general. They can be in terms of promotion of ICT usage, education and the establishment of adequate regulatory framework for e-commerce including taxation and tariff for revenue generated through e-commerce and Intellectual Property protections. Government initiatives are affected by many factors including the country's political condition, economic condition, and external influence from other countries.

Political Condition

Political situation is a key factor for e-commerce growth. In a country with an unstable political condition, it is less likely that government will give enough attention, if any, on

e-commerce development⁸.

Economic Condition

Economic condition is also widely recognized as a major driver for e-commerce adoption. The GDP and income per capita are common indicators for the economic condition of a country. Since e-commerce relies on some technology infrastructures which are relatively expensive for many developing countries, countries with unfavourable economic condition are not likely to be involved in e-commerce. The economic condition will also affect the socio-cultural condition of a country.

Technology Infrastructure

E-commerce success relies heavily on a number of technology infrastructures. Firstly, telecommunication infrastructures are required to connect various regions and parties within a country and across countries. The cost of accessing the infrastructures also influences the growth of e-commerce. E-commerce also relies on efficient logistic infrastructures within a country. Its growth further requires the establishment of reliable and secure payment infrastructures to avoid frauds and other illegal actions. The overall technology infrastructure development of a country relies heavily on the economic and geographical conditions of the country.

Geographical Condition

Geographical condition of a country can be a motivation or barrier to technology

⁸ Dedrick, J., Goodman, S. & Kraemer, K. "Little Engines that could: Computing in Small Energetic Countries", *Association of Computing Machinery*, (35), 1995, pp.21-26.

infrastructure development. In countries that consist of many small islands, technology infrastructures can be difficult to develop. On the other hand, the need for having such infrastructure is also significant for effective communication and trading among the widely spread parties.

Socio-cultural Condition

The adoption of e-commerce also depends on the cultural and social environment. In some countries, people consider shopping as a recreation, and therefore, B2C e-commerce is difficult to nurture. Likewise, the level of education, the availability of IT skills, the level of penetration of personal computers and telephone within the society affect the growth of e-commerce.

Public Awareness

A lack of awareness of the use and potential benefits of information and communication technologies can also hinder the growth of e-commerce. In some developing countries, many people are only aware of limited e-commerce applications such as chat, email and browsing websites. As a result, many organizations have not considered exploiting the potential of e-commerce to improve their business operations.

External Influence

The growth of e-commerce in a country is also influenced by other countries. For example, the reputation of credit card frauds in some countries caused blockages of several IP addresses by a number of commercial sites from different countries. This situation can cause those countries to be expelled from global business transactions and

hence, limit the usefulness of e-commerce.

After having seen the domestic factors that could impact the effective adoption of e-commerce, let me now move on to highlight some of the most important constraints for the growth of e-commerce in the developing world.

Infrastructure-related difficulties

One of the frequently cited constraints is related to infrastructure. The International Telecommunications Union (ITU) has noted that developed countries have 312 Internet Service Providers (ISP) for 10,000 people, while there are 6 Internet Service Providers for 10,000 in developing countries; there are 2.5 telephone lines per 100 people in developing countries as against 54 lines for 100 people in the developed world. Thus without a critical mass of computers and supporting infrastructure it would be difficult for developing country firms to meet the challenges of the emerging electronic trade.

Access to computer

Access to computers represents a problem in the developing countries, let alone access to the Internet. In developing countries, which have a low per capita income, the high cost of computer renders it a luxury item. Besides this the monthly cost of Internet access must be added to the cost of equipment and connection. ITU reports that the average cost of a connection to dial up an Internet connection in Africa is US\$ 75 per month, while only US\$ 15 in the United Kingdom and US\$ 10 in the United States. In addition to the fixed costs of Internet access, the telecommunications operators levy additional

charges on use of the telephone lines, on a per minute basis. This reduces the time that users spend online, thus hampering meaningful e-commerce activity.

Lack of adequate legal frameworks

An important concern of many countries, more particularly the developing countries is the inadequacy of existing laws to regulate electronic commerce. Many of the developing countries have laws in force, which contemplated nothing beyond paper-based commercial transactions. Thus even where the business community is willing to adopt electronic technologies for transacting business, the lack of suitable legal mechanisms for protecting and promoting this practice could act as an inhibiting factor⁹.

Security concerns

The issue of business being conducted over the Internet raises important security issues. Companies doing business over the Internet must have sophisticated security measures in place so that information such as relating to credit card, bank account, and social security numbers cannot be accessed by unauthorized users. A small percentage of the populations in the developing countries use credit cards with many regarding even traditional banking institutions with distrust or suspicion. That apart, even business institution in developing countries appears to be using Internet technologies for purposes of marketing and internal communications rather than commercial transactions. Thus, the lack of an Internet culture and the traditional mind-set of populations which view with mistrust all electronic communications are serious constraints in some developing countries. The development of efficient security systems

⁹ But, this is being increasingly addressed in many developing societies.

to preserve the integrity and confidentiality of information on the Internet and sensitizing national institutions on these issues would go a long way in overcoming the problem.

World Trade Organization and E-Commerce

Efforts to implement e-commerce on a global scale require consensus and agreements on many issues. Several international and regional bodies are currently involved in the structuring of suitable frameworks for facilitating the global adoption of e-commerce.

Following are the broad outlines of the issues involved in the smooth and efficient functioning of electronic commerce.

1. General

- (a) Role of the State
- (b) Role of International Organizations

2. Economic and Social Issues

- (a) Taxation
- (b) Electronic Cash
- (c) Banking regulations
- (d) Market access
- (e) Impact on Workforce
- (f) Customs duties
- (g) Risks of Monopolization
- (h) Cultural issues - content and censorship.

3. Legal Issues

- (a) Jurisdiction
- (b) Electronic contracts
- (c) Privacy and data protection
- (d) Consumer and seller protection
- (e) Digital signatures, encryption
- (f) Intellectual property rights
- (g) Fraud, Money Laundering
- (h) Liabilities of Internet Service Providers
- (i) Dispute settlement

4. Technology Issues

- (a) Telecommunications infrastructure
- (b) Security
- (c) Encryption
- (d) Electronic payment systems
- (e) Authentication and data integrity
- (f) Internet governance - Standards and Domain Names, etc.

The above said enumeration reflects the wide range of issues that need to be addressed in the formulation of a functional legal regime for e-commerce. Efforts to address these issues are at different levels of progress in various international and regional fora. Since it is difficult to provide an overview of the current international efforts¹⁰ towards

¹⁰ The most important institutions that are concerned with the problem of e-commerce and hence have been working in this area include: United Nations Commission on International Trade Law (UNCITRAL), World Intellectual Property Organization (WIPO), and United Nations Conference on Trade and

facilitation of electronic commerce, in this last part of my presentation I focus on the work of the World Trade Organization (WTO) in this area.

WTO and E-Commerce

The subject of electronic commerce is relatively new to the WTO, being first raised by the United States at the General Council in February and then in the Second Ministerial Meeting of the WTO in Geneva in May 1998. The range of WTO disciplines that could affect electronic commerce is broad, involving services, intellectual property, goods, government procurement, TRIPS and technical barriers to trade.

The Work Programme on E-commerce¹¹ was adopted by the General Council on 25 September 1998¹² and is referred to in both the Doha and Hong Kong Ministerial

Development (UNCTAD). Apart from these institutions, this subject matter is also dealt with in other for a that include: Organization for Economic Cooperation and Development (OECD), The Commission of the European Communities and Asia-Pacific Economic Cooperation Forum (APEC).

¹¹ For the purposes of the work programme, "electronic commerce" means "the production, distribution, marketing, sale or delivery of goods and services by electronic means." The work programme will also include consideration of issues relating to the development of the infrastructure for electronic commerce.

¹² In September 1998 the General Council established a Work Programme on electronic commerce for the relevant WTO bodies, namely the *Council for Trade in Services*, the *Council for Trade in Goods*, the *Council for TRIPS* and the *Committee for Trade and Development*. An interim review of progress in the implementation of the Work Programme was conducted by the General Council in March 1999. The final Reports, including recommendations, of these four bodies were submitted to the General Council on 31 July 1999. Based on these Reports the General Council was supposed to have submitted recommendations for decision by Ministers at the Seattle Ministerial Conference which took place in December 1999. However, the failure of the WTO Seattle Ministerial Conference to reach consensus on the launching of a new round of trade negotiations has resulted in a lapse on the way forward for the multilateral trading system. This has

Declarations. This Declaration mandated the WTO's General Council to establish a comprehensive work programme to examine all trade-related issues relating to global electronic commerce and to submit a report on the progress of the work programme to the Third WTO Ministerial Conference. The Declaration noted the importance of the economic, financial and development needs of developing countries, and reaffirmed the current-practice of not imposing customs duties on electronic transmissions. WTO's position is that just as member countries do not impose customs duties on telephone calls, fax messages and e-mail when they pass national boundaries, they should not impose customs duties on electronic transmissions over the Internet.

According to the Hong Kong Ministerial Declaration of 2005, the moratorium on customs duties on electronic transmissions applies only until the next Ministerial Conference. Though the WTO agreement mandates a Ministerial Conference at least once in two years, no Ministerial Conference has been held since the one that took place in Hong Kong-China in 2005.

Discussions have continued in the General Council, the Council for Trade in Services, the Council for Trade in Goods, the Council for TRIPS, and the Committee on Trade and Development and the work of other inter-governmental organizations are being taken into account. The work is wide ranging across these five bodies. However, progress has been slow, mainly because members have not been able to agree on a

resulted in confusion and ambiguity as to the current status of the moratorium on the levying of customs duties on electronic transmissions.

classification for electronically delivered products. The rules governing trade in goods fall under the General Agreement on Tariffs and Trade (GATT) while the rules governing trade in services fall under the GATS. The fact that neither “goods” nor “services” are defined in the GATT and GATS respectively seriously complicates the already complicated matter of the electronically delivered product. The WTO recognizes that it is products previously traded only as physical goods but are now also tradable as digital information that presents the challenges.

The WTO has not ruled whether e-commerce should be considered a good or a service. If considered a service, the General Agreement on Trade in Services (GATS) would dictate e-commerce trading rules. Under GATS, WTO members must provide market access only in those sectors where they have made affirmative and specific commitments.

Conversely, if e-commerce were considered a good, the General Agreement on Tariffs and Trade (GATT) would apply. GATT requires market access and national treatment for all WTO members. During the December 2009 WTO Ministerial Conference, Ministers agreed to extend the temporary moratorium on e-commerce customs duties for all WTO members until the next Ministerial meeting in 2011. If the moratorium expires, this may once again become a contentious issue.

At the Seventh Ministerial Conference in Geneva in December **2009**, Ministers agreed to reinvigorate the Work Programme. They instructed the General Council to hold periodic reviews of the progress on the Work Programme, which it did in July and December 2010, and July 2011.

In December 2011, WTO Ministers adopted a Decision that called, *inter alia*, for continued reinvigoration of work under the Work Programme on Electronic Commerce, based on its existing mandate and guidelines and on the basis of proposals submitted by Members. The 2011 Ministerial Decision also further extended WTO's Moratorium on customs duties on electronic transmissions, an undertaking in place since 1998. WTO Members have credited this Moratorium with helping global e-business to flourish.

Given the importance of E-commerce to the economies of developing countries, it is indeed vital for Ministers to ensure that the current practice of not imposing customs duties on electronic transmissions is maintained at least until the next Ministerial Conference.

Final Remarks

The growth, integration, convergence and sophistication of information technology and communications are changing society and economy. E-commerce is an inevitable reality as the prime promoter of commerce and trade around the world. Electronic commerce offers unprecedented opportunities to both developing and developed countries. The most critical question is : can the networked economy bridge the gaps of disparity between developed and the developing countries? Can e-commerce provide the developing countries with a permanent solution to the foremost problem which the developing and the underdeveloped countries today face — lack of resources and finances to address domestic issues like abject poverty, illiteracy, infant mortality, security, hunger, disease, unemployment and inequality?

In the short run, the gains are likely to be concentrated in developed countries but, in the long run, developing countries have more to benefit. This is because, in the short run, (as we have seen) developing countries lack the infrastructure necessary to take full advantage of Internet. But in the long run, they can leap frog, skipping some of the stages in the development of information technology through which developed countries have had to pass. Despite the current limitations with the existing infrastructure and other issues related to the economical and socio-cultural conditions, e-commerce may offer excellent opportunities for growth in developing nations.

I thank you for the opportunity.