

E-Commerce & WTO

Digitalizing Trade Liberalization

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Editor's Note

This paper is for a research purposes in order to develop a rationale between the two forces driving today's economies, that is, the Information Communication Technolgy (ICT) and WTO. The paper is only of suggestive nature and bares no burden if applied.

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Abstract of the Paper

For centuries the general principal has been that practice has abided and followed law. Globalization is the result of two revolutions taking place at in concurrence, one legal and the other technological in nature. Those are firstly, the Trade Liberalization and Internationalization of goods and services, and secondly, the Information Communication & Technology through the telecommunications and multi-media content.

World Trade Organization through its multi-lateral Agreements is propagating trade and industrial standardization of products and procedures, carving market access and national treatment formalities for goods and services produced within and outside the country – all based on the assumption of physical transport medium.

E-Commerce and Internet technologies on the other are creating the new economy of future where physical limits die, and virtual reality emerges, where the sense of import and export vanishes, and WTO rules are nullified.

The question today is of great importance because goods and services are products of intellectual ideas. Any new scientific revolution, invention and innovation, any new product and marketing concept, architectural or genetic engineering concept, industrial process or business model are the crux of industry and business – which can be trade freely over internet.

The worlds biggest industry MUSIC Industry escaped its demise from the hands of NAPSTER. There is more to come. Are we ready? What the the link between the law with permits us to do buisness in a particular manner and technology which defines innovative manners of doing business ahead of legal jurisdiction!

The Development Matrix

For centuries the general principal has been that practice has abided and followed law. But in the new millennium, patters have reversed. Now, technological development is overwhelmingly fast. It accelerates in quantum. In our day, practice leads law. The speed of with which practice accelerates is due to the sheer pace of developments in communication and technology. The world today dreams about ICT and WTO! These dual forces of change, one technological and other legal, are responsible for a miracle which the world has never witnessed before, yes, the phenomenon of Globalization: making time and space irrelevant, transforming physical realities into virtual images instantly at the speed of light!

The world is putting its faith in these dual forces of Information Communication Technology (ICT) and World Trade Organization (WTO). Every nation dreams to be the world leader, and every individual dream to become resourceful, by exploiting the potential these opportunities offer. The phenomenon is generating so much attention that all national policies today revolve around these words of magic i.e.: ICT & WTO!

There is great sense of unanimity that technology and trade, if combined together can overcome all odds, and can make our world more equitable, reducing the gap between the developed and the developing, and bringing the haves and the have-nots closer, sharing both power and prize of the modern age. Let it be, biotechnology, genetic engineering, artificial intelligence, space exploration, multimedia virtuosity, nanotechnology — the

adventures of science and art, invention and innovation, theory and practice — in every subject from physics, chemistry, biology, astrology, astronomy, psychology, philosophy, anthropology, architecture, engineering to medicine — take quantum leap forward to revolutionize the world offering a promise for bringing great wealth and pleasure to mankind ever heard of before. There is a need to understand the forces of globalization, information technology and trade liberalization not merely as creators fortune and power, but also, as enablers of development and sustainability. WTO and IT create more opportunity than pose threat having deeper implications for every aspect of life and realms of business creating a development matrix for all to leap forward in the race for better future. A new economy is in the making bringing with it the age of abundance, where information is the most important factor of production dominating land, labour, and capital for an entrepreneur in contrast to traditional economics.

Information Technology Revolution

Recent advances in three areas — computer technology, telecommunications technology, software and information technology — are changing lives by offering new means of exchanging information and transacting business influencing the economic and social clusters of societies around the globe. Modern technologies are becoming integrated, especially through internet, to link millions of people in every corner of the world. Communications are increasingly unburdened from the constraints of geography and time. Information spreads more widely than ever before. Deals are struck, transactions completed, and decisions taken in a time-frame that would have seemed simply inconceivable a few years ago. This technological revolution will increasingly engulf

every area of activity where the digital transmission of information serve purpose, whether it is in the office or in the business, or in worlds of shopping, leisure, education or entertainment. A quantum leap helps achieve knowledge-led growth by a telematic society charged by the information economy!

The Electronic Commerce

The focus of this paper is on e-commerce not the broader domain of modern information technology in all its guides and uses. ECommerce may simply be defined as the advertising, sale and distribution of products via telecommunications networks. It is a synthesis of traditional business practices with computer, information and communications technologies. In today's world e-commerce has evolved from its meager notion of electronic shopping to mean all aspects of business and market processes enabled by Internet and World Wide Web (WWW) technologies. Although e-commerce first emerged in the 1960s when communication networks came into existence, and private networks were established typically by large organizations for conducting business-to-business (B2B) e-commerce through Electronic Data Interchange (EDI) yet the true potential of carrying e-commerce has very recently been realized with the promulgation of Internet and related technologies bringing sellers, buyers, investors, advertisers, financiers, bankers, fund-managers, government and citizens on-line extending the nexus of transactions from business-to-business (B2B) (*see exhibit A*) to business-to-consumer (B2C), consumer-to-consumer (C2C) and Government-to-Citizen (G2C).

Exhibit A: B2B e-Commerce Projections

B2B eCommerce by Region, 2000–2004 (in billions)						
	2000	2001	2002	2003	2004	As a % of Worldwide B2B eCommerce 2004
North America	\$159.2	\$316.8	\$563.9	\$964.3	\$1,600.8	57.7%
Asia/Pacific Rim	\$36.2	\$68.6	\$121.2	\$199.3	\$300.6	10.8%
Europe	\$26.2	\$52.4	\$132.7	\$334.1	\$797.3	28.7%
Latin America	\$2.9	\$7.9	\$17.4	\$33.6	\$58.4	2.1%
Africa/Middle East	\$1.7	\$3.2	\$5.9	\$10.6	\$17.7	0.6%
Total	\$226.2	\$448.9	\$841.1	\$1,541.9	\$2,774.8	100.0%

Source: eMarketer, 2001

Basically a commercial transaction can be divided into three main stages:

The searching stage is where suppliers and consumers interact in the first instance. This stage may or may not lead to actual transaction. The second stage entails ordering and payment for goods or services, typically through electronic transmission of credit card or bank account information. At the third stage, those transactions that can be concluded through electronic delivery of digitalized information entirely on the Internet. E-Commerce via the Internet must end at the second stage for purchases which cannot be delivered electronically, including physical goods like flowers or CDs, and services that can only be supplied if the supplier and consumer are in physical proximity, like haircut, tourism and construction. All or any of these stages when carried out on the Internet and may therefore be covered by the concept of e-commerce.

E-commerce covers a very broad range of business and commercial activities which can generally be categorized as following:

- Subscription of usage-based telephony, online and Internet access services
- Subscription of transaction-based information services and software sales
- Subscription of online media and content
- Commercial retail sales
- Business-to-business wholesale and retail services and sales
- Advertising and marketing services
- Online consultancy and advisory services
- Financial services and transactions
- Government services and information
- Intermediary and exchange services
- Ancillary functions contributing to business/commercial activities

Electronic means are being increasingly used aggressively by commercial firms to advertise and market both goods and services all over the world. Virtually, all products can be sold on the basis of the information available on the Internet. Information on prices, quality, delivery and payment conditions enables manufacturing companies, retailers or consumers in far-off countries to order their requirements from the most competitive suppliers. Physical goods then are delivered by other means of transport. IT is becoming increasingly possible to deliver certain types of products electronically; in fact any product can be reduced to a digital format can be delivered in this way. The potential product range is vast: financial and insurance services; audio-video products like films, games, and music; travel services like airline tickets and hotel reservations; telecommunications services and new and information services like online wire services

and data bank retrievals — the list is not exhaustive and additional products are likely to be found suitable for electronic trade in future. Internet and e-commerce offer:

- Reduction in transaction costs
- Changing business models for growth
- Facilitating market access specially for SMEs
- Improving competition for consumer benefit

Dawn of Global Competitiveness

There has never been time in modern economic history when more change has occurred in so short period of than that which has occurred in the last decade of the 20th century. New markets are springing forth in emerging economies from Eastern Europe, the Commonwealth of Independent States, China, Indonesia, Korea, India, Mexico, Chile, Brazil — in short, globally. These emerging markets huge potential for business opportunities.

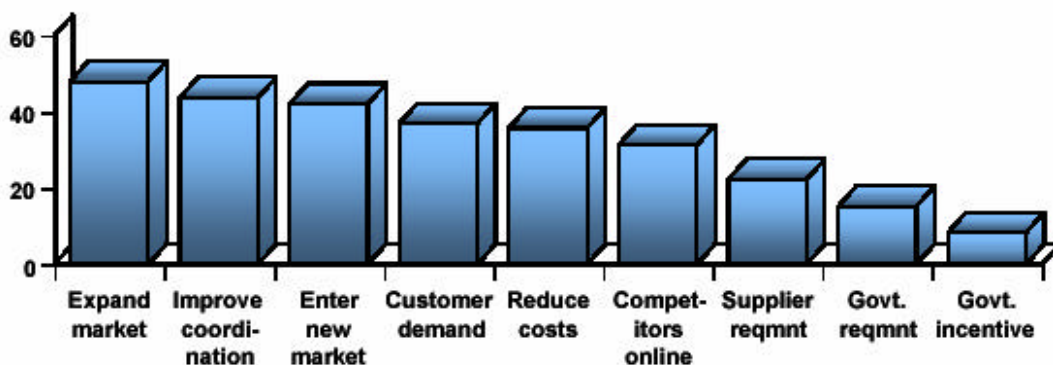
Above all, economies of the world's leading nation are the world's largest producers and exporters of goods and services. There has been a direct inevitable linkage between international trade and domestic economic performance. A country's ability to produce world class goods and services at most competitive rates has become the single most important factor for economic stability of the country to counter the influx of imported goods and services in home markets. In foreign markets exporting these goods and services to fetch higher profit margins directly effect the national balance of payments, foreign currency reserves, local currency-dollar parity. This global economy,

influenced by the world access of manufacturing technology, and the new World Trade Order have created unprecedented opportunities for businesses. Therefore, International business and trade offers multiple advantages for many countries and local firms to indulge into international business for the following reasons (*exhibit B*):

- Increase in sales and profits
- Gaining global market share
- Reducing dependence on existing domestic markets
- Stabilizing market fluctuations and hedging risks
- Enhancing competitiveness
- Creating jobs
- Contributing to domestic economy and trade

Fueling the process of globalization is the emergence of e-commerce bringing markets, businesses, consumers and governments closer than ever.

Exhibit B: Drivers promoting use of internet



The Challenge of Protectionism

May be free flow of goods and services is our dream! As a matter of fact, the reality of international business is that this is a world of tariffs, quotas and non-tariff barriers (*see Exhibit – Types of non-tariff barriers*) designed to protect or block a country's market from intrusion by foreign companies and foreign goods and services. A number of countries resort to measures of protectionism making international business a mere dream awaited to be true. Nations legalize legal barriers to trade, exchange barriers, and psychological barriers to restrain entry of unwanted goods.

Therefore, the e-commerce works as a medium of facilitation where as the existing universe of distribution of goods and services is governed by a mechanism of legal framework. The potential of usage of technology can not be unleashed until the legal frame-work in order to facilitate free movement of goods and services within and across borders.

Exhibit: Types of non-tariff barriers

Specific Limitations on Trade:

- Quotas
- Import licensing requirements
- Proportion restrictions of foreign to domestic goods
- Minimum import price limits
- Embargoes

Customs and Administrative Entry Procedures:

- Valuation systems
 - Antidumping practices
 - Tariff classifications
 - Documentation requirements
 - Fees
-

Standards:

- Standards disparities
- Intergovernmental acceptances of testing methods and standards
- Packaging, labeling, marking standards

Government Participation in Trade:

- Government procurement policies
- Export subsidies
- Countervailing duties
- Domestic assistance programs

Charges on Imports:

- Prior import deposit requirements
- Administrative fees
- Special supplementary duties
- Import credit discriminations
- Variable levies
- Border taxes

Others:

- Voluntary export restraints
- Orderly marketing agreements

The New World Trade Order: WTO

The World Trade Organization (WTO) provides a forum for establishing binding agreements between nations to liberalize the trade in goods and services through the removal of barriers and to develop rules in the new trade-related subject areas. The system's primary goal is to provide liberal, secure and predictable access to foreign markets for the goods and service products of exporting enterprises. The system helps to ensure that enterprises can market their products internationally under conditions of competition that are equitable and with the disruptions caused by sudden imposition of restriction — ensuring the free movement of goods and services.

The ability of industries and business enterprises to benefit fully from this rule-based system in today's rapidly globalizing economy depends on their knowledge and understanding of the detailed rules.

Basically WTO system consists of the following main substantive Agreements:

- Multilateral Agreements on Trade in Goods including General Agreement on Tariffs and Trade (GATT 1994) and its associate agreements;
- General Agreement on Trade in Services (GATS);
- Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

Objectives of WTO

- Raising standards of living and incomes
- Ensuring full employment
- Expanding production and trade
- Allowing optimal use of world's resources

Four Basic Rules of WTO

- *Protection to domestic industry through tariffs* against foreign competition but quantitative restrictions is prohibited except in a limited number of situations.
- *Binding of tariffs* to reduce and, where possible, eliminate production to domestic production by reducing tariffs and removing other barriers to trade in multilateral trade negotiations.

- *Most-favoured-nation (MFN) treatment* is the principle of non-discrimination which requires that tariffs and other regulations should be applied to imported and exported goods without discrimination among countries.
- *National Treatment Rule* prohibits countries from discriminating between imported products and domestically produced like goods, both in the manner of the levy of internal taxes and in the application of internal regulations.

WTO & e-commerce

E-Commerce comes under WTO General Agreement on Trade in Services (GATS), covering eleven (11) service sectors and one residual “other” category. These are business, communication, construction, distribution, educational, environmental, financial, health-related and social, tourism and travel-related, recreational, cultural and sporting, and transport services. There are 150 sub-sectors in the others. WTO has identified over 150 service sub-sectors.

One of the main characteristics of services is that they are intangible and invisible, goods, by contrast are tangible and visible. These differences also influence the modes in which international transactions take place. While international trade in goods involves the physical movement of goods from one country to another, only relatively few service transactions involve cross-border movements.

Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) forms with GATT and GATS the tripod of WTO system. The objects of intellectual property are the

creations of human mind. The rights of creators of innovative or artistic work are known as intellectual property rights. They include copyrights (which protects rights of authors of books and other artistic creations), patents (which protect the rights of inventors) and industrial designs (which protect rights to ornamental designs).

The link between e-commerce and WTO is indispensable because of the digital delivery systems and digitalization of products and contents such as books, media, and services. Another aspect is the WTO Accord on Telecommunication Services. The deregulation and liberalization of telecommunications sector establishes the backbone of e-commerce services to be used over telecommunications medium.

The growing importance of electronic commerce in the global trade let the members WTO to adopt a declaration on e-commerce on 20 May 1998 at their second Ministerial Conference in Geneva, Switzerland. WTO identified three (3) types of transactions on the internet:

1. Transactions for a service which is completed entirely on the internet from selection to purchase and delivery.
2. Transactions involving “distribution services” in which a product, whether a good or service, is selected and purchased on-line but delivered by conventional means.
3. Transactions involving the telecommunications transport function, including provision of Internet services.

E-Commerce Implications for Trade Liberalization

WTO-related issues regarding e-commerce can be divided into seven areas.

1. The first examines infrastructure requirements for e-commerce. It focuses on the outcome of recent WTO negotiations aimed at liberalizing trade in information technology products and basic telecommunication services, and also considers the coverage of Internet access services in Members' commitments under the GATS.
2. The second is the market access issues regarding electronically transmitted products, including the implications of the recent US and EU agreement on duties affecting transactions on the internet, the recent US proposal to the WTO General Council on the customs treatment of electronic transmissions, and categorization of electronic transactions in the WTO framework.
3. Thirdly, is to look what has been achieved by the way of trade liberalization commitments under GATS in areas seemingly of most significance under electronic commerce.
4. Fourthly, is the role of WTO in trade facilitation with emphasis on the ways that the Internet and Electronic Data Interchange (EDI) can simplify trade and customs administration.
5. Fifthly is the way in which e-commerce could transform the traditional approach to government purchases through the use of electronic technologies. This is in reference with the plurilateral *WTO Agreement on Government Procurement*.
6. Sixthly, are the trade-related aspects of intellectual property rights covered under *WTO Agreement on Trade-related aspects of Intellectual Property Rights*

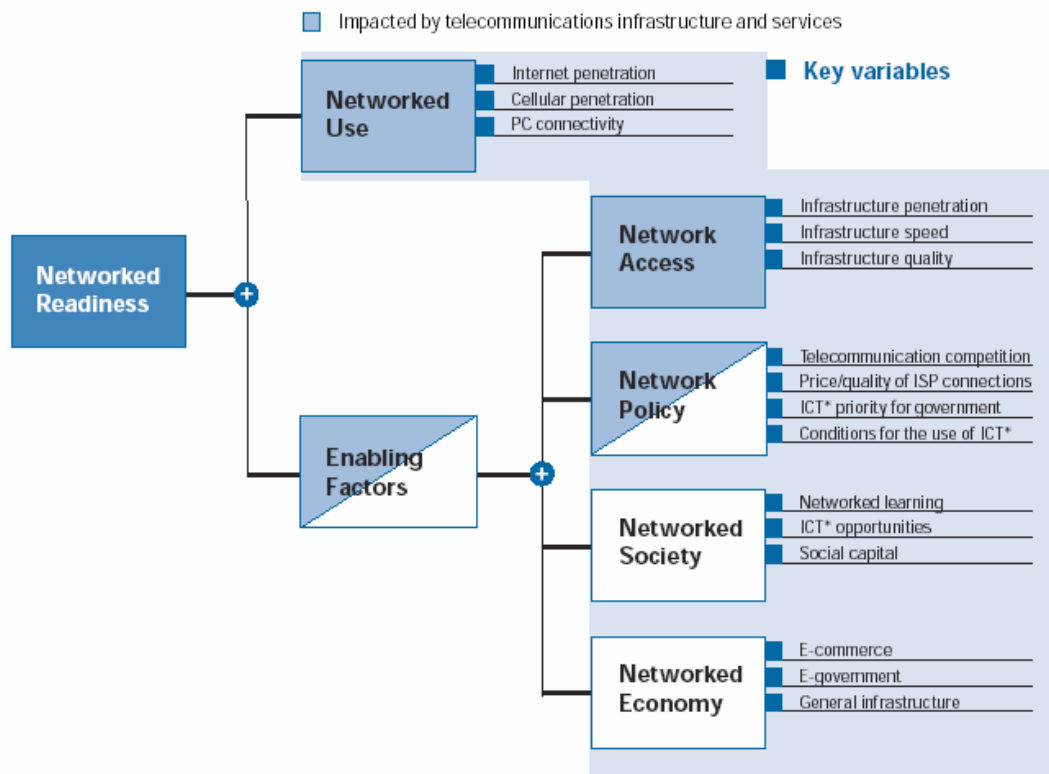
(TRAITS) and the importance of protecting copyrights and related rights, trademarks and domain names for the future development of e-commerce.

7. Finally, WTO examines regulatory issues relating to e-commerce from a WTO perspective and the problem of privacy.

1. Access to the Internet

E-Commerce can not be conducted without access to two essential components. First the necessary hardware and software, second is the communications networks (*exhibit C*). Access to the infrastructure needed for e-commerce depends in part on adherence to certain WTO rules and specific commitments of market access.

Exhibit C: Network Readiness for E-Commerce



1. First, the *Information Technology Agreement (ITA)* removes range of tariffs for e-commerce and the Internet. Products included in ITA semiconductors, telecommunications products, scientific instruments, computer software and semiconductor manufacturing equipment. Semiconductors include chips and wafers of various capacity and size. Telecommunication products include telephone sets, radio-broadcasting and television transmission and reception apparatus, pagers, videophones, fax machines, switching apparatus, and modems. Scientific instruments include measuring and checking devices, chromatographs, spectrometers, optical radiation devices, and electrophoresis equipment. Computers include processing units, keyboards, printers, monitors, scanners and hard disk drives. Software refers to the carrier media on which the software is contained, such as diskettes, magnetic tapes and CDs, which is the way in which software is classified under the Harmonized System of tariff nomenclature. Semiconductor manufacturing equipment includes a wide variety of equipment and testing apparatus used in the production of semiconductors. Finally, a range of products covered that do not fit into any of the above categories include word processors, calculators, cash registers, ATM machines, certain static converters, indicator panels, capacitors, resistors, printed circuits, conductors, optical fiber cables, photocopiers, computer network equipment, and flat panel displays.
2. Second are commitments on market access, national treatment and regulatory principles in basic telecommunications sector under GATS.

3. Third is the GATS Annexure on Telecommunications network and services. The distinction between basic and value-added telecommunication services is never formally drawn. Broadly, value-added services, involve enhancement of the form or content of information. Value-added services may include online data processing and data base storage and retrieval, electronic data interchange, electronic mail and voice mail. By contrast, basic services include negotiations regarding real time communications of customer-supplied information such as voice telephony and data transport services with no change in form. WTO Annex on Telecommunications guarantees access to and use of public telecommunications transport networks and services. It also prevents a monopoly supplier from acting in a manner that denies non-discriminatory treatment to all other WTO Members and from undermining market access commitments. Like for basic telecommunication services suppliers, including Internet Service Providers (ISP) to have right to access or establish interconnection point.

2. Market Access Issues for E-Commerce

No matter how fascinating the technology of e-commerce is, open international market access is essential to the realization of benefits from e-commerce such as:

- When goods are ordered electronically and delivered physically there will be no import duties in relation to the use of electronic means;
- And, in all other cases relating to e-commerce, the absence of duties on imports should remain.

For e-commerce a key difference between GATT and GATS must always be borne in mind. The GATT regime embodies at least four significant differences in comparison to GATS as elaborated in the Exhibit.

Exhibit: *WTO implications for E-Commerce Policy Regime*

<i>GATT</i>	<i>GATS</i>
<p>GATT contains a general obligation in respect of national treatment</p> <p>GATT embodies a general prohibition on quantitative restrictions.</p> <p>GATT envisages the use of customs duties on import where WTO Members have not bound their tariffs at zero.</p> <p>GATT focuses on cross-border trade, but additionally considers commercial presence within a foreign jurisdiction and “establishment” trade, as well as movement of natural persons as part of trade services.</p>	<p>Implementation of national treatment of GATS depends on what specific commitments have been made at sectoral level.</p> <p>GATS permits the use of quantitative restrictions in cases where governments wish to maintain limitations on market access.</p> <p>GATS has little to say about customs duties or taxes in general, except any tax regime must be consistent with a Member’s National Treatment commitments in its schedule of specific commitments.</p>

For historical reasons, rules on trade in goods and trade in services have evolved separately. The two set of rules are similar in many ways, but they contain important differences. But when it comes to e-commerce, some of this clarity evaporates. Products which can be rendered identical, but which might be labeled goods, services or something else, can find their way from a supplier in one jurisdiction to a consumer in another by quite different means i.e., a book which can be imported or exported physically or downloaded makes it difficult to treat under GATT or GATS.

3. Trade Liberalization under GATS

For the purposes of e-commerce at least four service sectors fall into overlapping categories which help in development of the infrastructure of e-commerce which are:

- Telecommunications and computer and computer-related services;
- The services which can actually be delivered electronically including for example business, entertainment, and financial services;
- The sectors that are complementary to all commerce including e-commerce, such as postal, courier, and transport services;
- The sectors which would benefit from electronic information flows more generally such as faster data transmission, lower search costs, electronic processing of administrative forms etc.

The GATS commitments made with respect to electronic delivery of services and where the physical delivery is involved the GATT applies, inferring that both GATT and GATS apply for ecommerce transactions.

4. Trade Facilitation

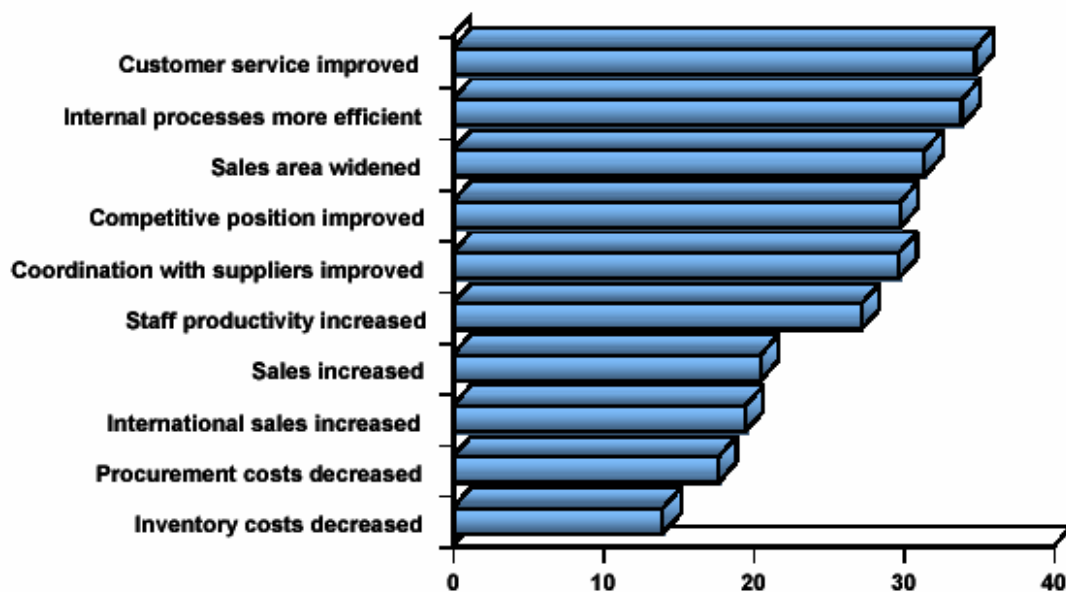
The considerable potential for using e-commerce facilitates trade for customs administration leads to considerable savings in overhead cost for traders and SMEs to engage for the first time in international transactions (*exhibit D*). In recent years there is a growing use of EDI-based electronic systems for trade and customs administration sharing trade-related documentations and information on technical aspects of trade like WTO Agreements such as, *Agreement on Import Licensing Procedures, Customs*

Valuation Agreement, Agreement on Rules of Origin, Agreement on Technical Barriers to Trade, Agreement on Anti-Dumping etc.

Some of the international bodies which work with WTO to develop e-commerce trade activities are the following:

- International Chamber of Commerce (ICC)
- International Telecommunications Union (ITU)
- UN Commission on International Trade Law (UNCITRAL)
- UN Conference on Trade and Development (UNCTAD)
- World Intellectual Property Organization (WIPO)

Exhibit D: Impact of Doing Business Online



5. Electronic Commerce and Public Procurement

The development of e-commerce is likely to have important implications for government procurement and international rules on government procurement. The increased use of

electronic technologies is transforming government purchasing procedures as the way is opened to electronic advertising, qualifications, tendering, selection, payment and in certain cases, delivery.

Agreement on Government Procurement (AGP) of WTO to which 26 WTO Members are signatories encourages the use of Information Technology specially e-commerce and Internet technologies under the stewardship of Committee on Government Procurement.

6. TRIPS Agreement, WIPO Treaties and Management of Domain Names

The growth of e-commerce is closely linked with the growing importance of intellectual property. Indeed, much of the trade on the Internet and other electronic communications networks involve selling or licensing of information, cultural products and technology protected by intellectual property. Books, CDs, music, movies, pictures, graphics, computer art and software — have become most popular items sold over Internet, all are covered under the TRIPS agreement binding for all WTO Members. The TRIPS Agreement sets out requirements for national procedures for enforcement of these intellectual property rights, and general principles for enforcement procedures, remedies, and criminal penalties.

Two important new treaties on copyright matters are adopted under the auspices of World Intellectual Property Organization (WIPO) which are WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty in 1996 that relate to the use of works on the Internet, concerning the right of communication circumvention of technological measures, and integrity of rights. Authors, performers, and phonogram producers enjoy an exclusive right to authorize the communication or making available to the public their

protected material by wire or wireless means, in such a way that members of public may access it. The treaties recognize the role that technological measures used by right-holders have in facilitating effective protection.

Both the TRIPS Agreement and WIPO Copyright Treaties realize that copyright protection covers compilations of data or other material that contents of which constitute intellectual creations. It has been informally agreed that the impact of digital technology on copyright and related rights has to a large extent been to enable production and distribution of pirated sound recordings, films, and software. Despite the legal protections offered by international agreements, the use of trademarks on Internet continues to raise important questions. One key question is under what circumstances and in which jurisdiction(s) does such use of a mark constitute infringement of a registered trademark? If the use is considered to constitute an infringement in one country, what remedies should be available, in particular if the transmission originates in another country? Is the current territory-based-system of registration of trademarks sufficient for the emerging borderless electronic market place? Resolution of these questions will be another important element of global policy to facilitate fair and effective e-commerce.

The issue of the management of Internet domain names and relationship between trademarks and Internet domain names is of considerable importance. The root cause of this issue is the fact that under each top-level domain (i.e., .com, .org, .net etc.) there can only be one of each particular second-level domain (SLD) name, which is usually

allocated on a first-come, first-serve basis within each top-level domain. However, some trademarks do co-exist in different categories of products and services and in different countries. Another controversial question is under which jurisdiction(s) the use of a domain name that is identical or similar to a trademark may constitute a trademark infringement, and what remedies should be available for the trademark-holder? There is an urgent need to develop a widely accepted system of governance for the management of domain names. Only US has established the Internet Corporation for Assigned Names and Numbers (ICANN), which is a non-profit organization assuming the responsibility for the IP address space allocation, protocol parameter assignment, domain name system management, and root server system management functions. Also a Memorandum of Understanding on the Generic Top Level Domain Name Space of Internet Domain Name System (gTLD-MoU) is established on 1st May 1997. The gTLD-MoU establishes a program for enhancing the existing gTLD system and creating a self-governing structure of the registration of SLDs under the new gTLD.

7. Regulatory issues in the WTO and Privacy

A major challenge for the trading system is how to secure legal framework for trade liberalization without infringing on the freedom of governments to pursue legitimate domestic objectives which are:

- Domestic consumer protection
- Public or National Security Interest
- Counteracting unsatisfactory market situations

The regulation under WTO framework is of three (3) kinds :

- universally prohibited activities,
- nationally prohibited activities
- and, nationally controlled or supervised activities,

are the three worthwhile regulatory aspects to consider further jurisdictional issues relating to ecommerce. Broadly speaking, regulatory objectives could be implemented at the source of supply, in the jurisdiction from which the products concerned emanate, or in the jurisdiction where consumption occurs. Here the important question is as to the willingness of governments to allow each other to regulate cross-border electronic transactions affecting their consumers.

Concerned about data protection and security for commercial purposes, there is a larger area of concern regarding the individual's rights to privacy in the electronic age. As technology makes it increasingly easy to obtain detailed personal information without the knowledge or consent of the consumer, there are strong opinion about establishing a legal framework to protect unauthorized use and dissemination of such data, and otherwise to assure some degree of control over access to private information, and invasions of privacy generally. Recently, WTO has recognized the need for Consumer Protection and Rights and it has involved many non-governmental organizations to attend and participate in the proceedings of WTO Summit in Doha Qatar in 2001.

WTO regime is a mutually beneficial legal arrangement between countries for providing market access and protecting domestic industry and markets according to the

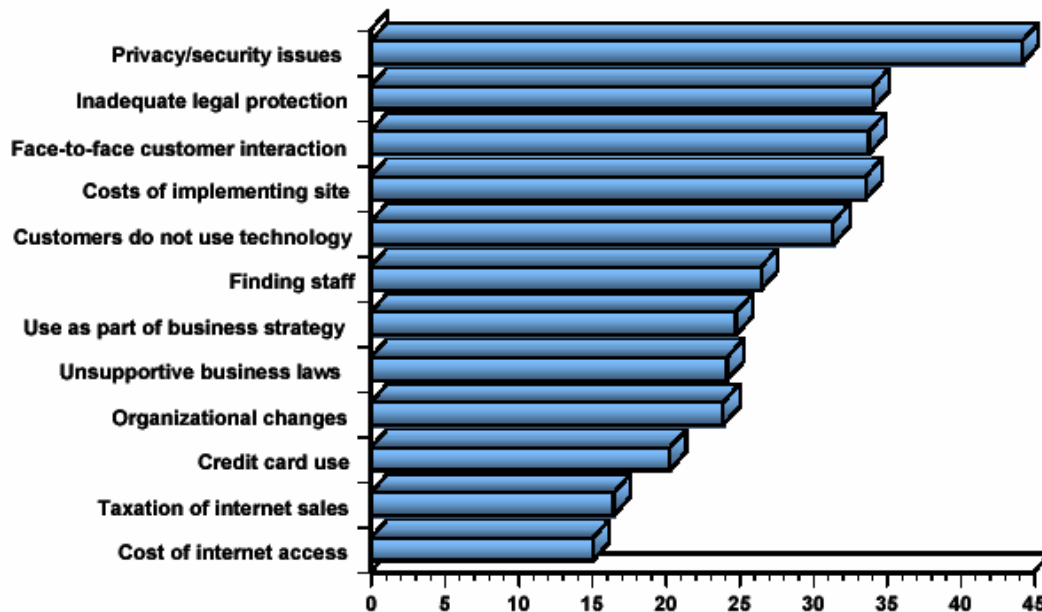
development-level of the country. International trade and business communications through electronic commerce give rise to a number of questions.

Some of those are:

- What is the origin of electronically trade product?
- When is an electronically delivered product ‘domestic’ and when it is ‘imported’?
- How do traders who use electronic means of communications deal with situations in which national laws or international conventions applicable to international trade transaction to require ‘written’ agreements, ‘original’ documents, or ‘manual’ signatures?
- How can authenticity of a message be secured, so that parties will know with certainty the identity of sender of an electronic message or enable them to verify that an electronic message has not been altered in transmission?

Uncertainty over the enforcement and potential for redress of electronically conducted contracts may create obstacles to the development of e-commerce across borders. The use of electronic means of communications, for instance in preparing and concluding a contract and in delivering products require not only technological solutions but an appropriate policy framework. There are many obstacles in doing business over internet (*exhibit E*).

Exhibit E: Obstacles in doing business over internet



A number of initiatives at the international level have been taken to assist governments to deal with inadequacies in applicable laws. For example, UNCITRAL, the UN body responsible for promoting harmonization and unification of international trade law, has undertaken work which led to the adoption of a *Model Law on Electronic Commerce* in 1996. The Model Law establishes norms and rules for the validation and recognition of contracts formed through electronic means, sets default rules for contract formation and performance, defines characteristics of valid electronic writing and an original document, provides for the acceptability of electronic signatures for legal and commercial purposes, and supports the admission of computer evidence in courts and arbitration proceedings. The Model Law can be used by countries to enact legislation that will help remove legal obstacles to, and uncertainties arising from, e-commerce. Both the US and OECD are

encouraging the development of an international convention on electronic transactions based on Model Law. This convention will have two aims:

1. to eliminate paper-based barriers to electronic transactions
2. to provide an effective approach to authentication

E-Commerce in Pakistan

With the emerging dot-com culture in Pakistan there has been a mushroom growth of information web portals, specialized search engines and commercial websites in the last couple of years. The number of Internet users in Pakistan is constantly increasing and is likely to soar manifold in the next couple of years. *Internet Service Providers Association of Pakistan (ISPAK)* claims that the current number of internet subscribers has reached 1.7 million. On IT infrastructure side, 850 cities and towns have been connected to Internet via local PSTN loop and by the end of 2002 Internet access will reach to some 4000 cities and towns.

Government of Pakistan has been on the forefront to trigger the IT and e-commerce revolution in Pakistan through virtual and distance learning and e-commerce-enabling initiatives. The most recent e-commerce initiatives taken by the Government of Pakistan are:

- establishment of *E-Commerce Working Group* and *E-Commerce Cell* at the Ministry of Science and Technology (MoST)
- facilitation of internet merchant accounts by the State Bank of Pakistan
- legal recognition to digital signatures and electronic documents

- protection of the intellectual property rights through *Electronic Transaction and Governance Ordinance*
- *Electronic Funds Transfer (EFT)* through 2000 branches in major cities

According to an e-commerce plan envisaged by the government, the financial sector will become the springboard for developing B2B e-commerce in Pakistan. The plan aims an e-commerce network, known as EC-Pak Network Service to connect 2,487 branches of 25 local banks including 5 large nationalized banks and all foreign banks, in 12 cities. All these banks will be linked to the State Bank of Pakistan and, to public and private stakeholders such as the tax collecting agencies, provincial governments, national saving centers, post offices, utility companies, government bodies, money-changers, trading-houses, airlines, shipping liners, clearing agents and insurance companies. Hence, EC-Pak will allow all stakeholders to communicate with each other and it will provide specialized value-added services essential for e-commerce such as security, message distribution, audit trail, acknowledgement and other related services that are more extensive and more advance than provided by a conventional Internet Service Provider (ISP).

Although e-commerce promises a great potential but following are some of the factors with reference to consumers and users in Pakistan, which are playing a major role as market growth barriers:

- Low computer education and technology sensitization
- Lack of basic understanding of how-to use Internet

- Lack of reading, research and development
- High cost of computers
- Lack of understanding of English language
- Lack of entrepreneurial spirit
- Limitations of investment capital with the Pakistani business people
- Unstable economic, political and legal environment
- Absence of regulatory framework for e-commerce
- Brain drain

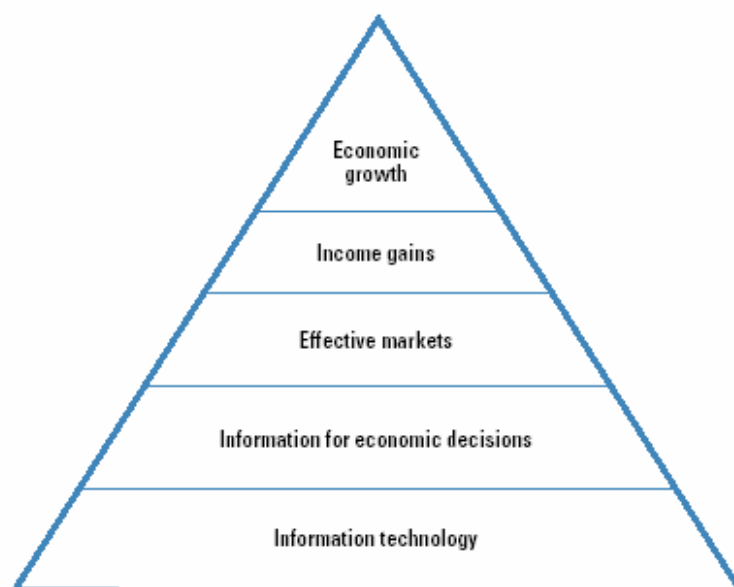
Conclusion

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 where ecommerce revenues are expected to reach over USD 3 trillion by the end of 2002. Due to the technology infrastructure many of the goods and services can be delivered electronically creating a whole new virtual economy driven by computers and telecommunications networks.

The most important question is: can the networked economy bridge the gaps of disparity between developed and the developing countries? Can e-commerce provide the developing countries a permanent solution 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? WTO promises to raise living standards and e-commerce

facilitates international business and trade through building a *Digital Provide* where a chain reaction starts from adopting Information Communications Technology (ICT) strategies like devising e-commerce making businesses more efficient and productive resulting in high income gains. Once the national capacity to generate income increases the core development issues like poverty alleviation and unemployment, social and environmental up-gradation start taking place leading to over all economic development at national level. *Digital Provide (exhibit F)* will remain a reality until the trade policy measures are adopted in consonance with the binding agreements on WTO not only to generate more business opportunities through exports but also by allowing domestic markets for competition in a calculated fashion by keeping an eye on issues like subsidies, dumping, tariff and non-tariff barriers.

Exhibit F: The Digital Provide



Economies of today can be classified into three:

- Information economies where markets, trade and transactions invariably reside on the telecommunications infrastructure and networks created by the free flow of digitalized products and services, funds and investments, ideal for e-commerce.
- Quasi-Info-economies which are created by a mix of modern and traditional means of trade and transaction using Internet and computers but also relying on conventional market activities.
- Traditional economies where mostly things happen in the old fashion and no use of computers or telecommunication networks is in place.

The capability of developing countries to create and consume digitalized products and services is far greater than any of the developed or under developing countries, meaning that the industrialized and developed countries, which have higher tele-density, internet penetration and telecommunication infrastructure, benefit more from e-commerce than others.

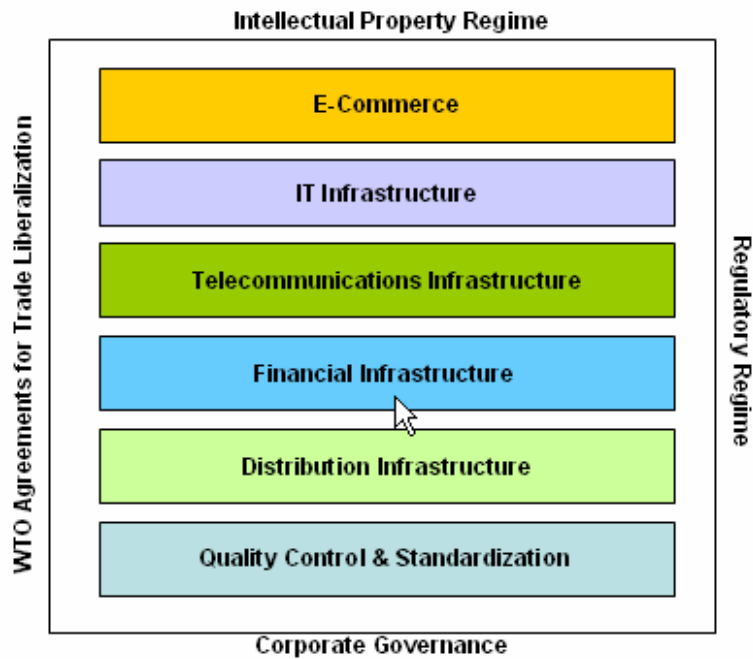
Most of the WTO rules apply on the goods under GATT from which WTO has originally evolved in 1995. Therefore, e-commerce can only be effective if the present system of trade liberalization is properly understood in letter and spirit. E-Commerce can initiate a transaction where the delivery system of goods must ensure that abides the multilateral agreements of WTO and all the related issues of standardization, quality assurance, market access, national treatment and MFN. Only free flow of goods and services can ensure a truly digitalized trade liberalization system based on e-commerce and internet

technologies covering all the regulatory and corporate governance issues addressing radical improvements both at the micro and macro economic and policy levels of a country like Pakistan.

The following (*exhibit G*) provides a 360 degree e-commerce implementation strategy for digital trade liberalization and facilitation.

Exhibit G: 360^o E-Commerce Implementation Strategy for Digital Trade

Liberalization



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About the Author

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