

ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA

SUBSTANTIVE REPORT

**EXPERT GROUP MEETING ON TRADE FACILITATION AND
ELECTRONIC COMMERCE IN THE ESCWA REGION
BEIRUT, 8-10 NOVEMBER 2000**

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INTRODUCTION

1. The Expert Group Meeting on Trade Facilitation and Electronic Commerce was held at Beirut from 8 to 10 November 2000. It was a concerted effort by the Economic and Social Commission for Western Asia (ESCWA), Association for the Development of Informatics and Law in Lebanon (ADIL), Credit Libanais, Friedrich Ebert Stiftung, General Union of Chambers of Commerce for Industry and Agriculture for Arab Countries (GUCCIAAC) and the International Development Research Centre (IDRC) of Canada.
2. Developing countries that are members of ESCWA are eager to make good use of the opportunities created by the information and communication technology revolution. Joining that revolution has become a priority for the countries concerned.
3. Most developing countries have already opened up their economies and are pursuing export-oriented strategies. Many have also either become or aspire to become members of the World Trade Organization (WTO). This is a clear indicator that the member countries together with many other developing countries have faith in the opportunities created by an open international economic system.
4. A prominent aspect of the revolution in information and communication technology is electronic commerce or Internet commerce. E-commerce has changed the way business is conducted. Internet trading provides the means for a cheaper, more efficient type of commerce. It allows consumers a better quality of goods and governments cheaper procurement. It also allows small and medium-sized enterprises to reach wider markets for their products.
5. There is however at the moment little and rather unsophisticated e-commerce taking place in the ESCWA member countries. Most of the initiatives that exist have come from individuals and they have taken place in the absence of the proper infrastructure required for the progress of e-commerce. This is at a time when e-commerce in the world is progressing very fast; and most of the trading giants are increasingly conducting their trade electronically. Developing countries therefore need to migrate their businesses onto the Internet to avoid the risk of being marginalized. Early comers will have the advantage of benefiting from participating in the global market.
6. Governments and the private sector in developing economies need to collaborate to create the right environment for e-commerce. The right environment entails raising awareness; encouraging computer and Internet literacy; developing human resources; providing adequate telecommunications, Internet services, on-line security and payment gateways. Most important, governments should formulate laws and regulations to usher in the information technology revolution. These laws should mainly recognize electronic evidence and protect intellectual property rights as well as consumers' rights.
7. Thus in order to assist the member countries in the region to be better informed and to cope with the requirements of this new trading tool, ESCWA has included in its current work programme this Expert Group Meeting.
8. The participants at the Meeting included experts from various ESCWA member countries (annex I), and the discussion covered several issues concerned with the setting-up and the progress of e-commerce. Also, experts attended from international organizations such as the Organization for Economic Cooperation and Development (OECD), the World Trade Organization (WTO), the Economic Commission for Europe (ECE) of the United Nations and the International Trade Center (ITC).
9. The report follows the sequence in which the papers (annex II) were presented at the Meeting.

I. THE INTERNATIONAL PERSPECTIVE ON TRADE POLICY AND E-COMMERCE

10. Technology driven globalisation¹ has become a reality to which individuals, firms, governments and non-governmental organizations (NGOs) will have to adapt. Openness and economic liberalization are now in the interests of every country. During the Meeting different international views about e-commerce and development were expressed.

A. HOW TO “E” A BUSINESS AND TO SURVIVE IN AN E-TRADE ENVIRONMENT

11. The extensive use of telecommunications-based technologies has resulted in the recent emergence of a new concept: the virtual enterprise. That is to say, enterprises that customers and suppliers see as one company, but which may, or may not, exist as a single physical entity. The virtual enterprise is based upon an invisible web of countries and relationships between many different computer systems and companies.²

12. Since 1990, rapid changes have occurred in the way trade is conducted. Radical changes in organizational processes and culture resulted in a transition into the environment of the new economy, which includes adapting the organization of the business to the electronic medium or a digital format. With the emergence of computerization and the Internet there is a new way of perceiving the rules of business. While computers and telecommunications are being offered at lower cost and becoming more prevalent and accessible, customers expectations have changed in respect to the amount of services, speed of services, access to information and customisation of the service. The e-paradigm is new, it includes E-ing everything, from e-companies (goats: Ethiopia, milk: India, education: Peru) to e-trade support institutions as well as e-governments (India, the United States of America).

13. E-ing an organization is the process that an organization, whether governmental, non-governmental or private sector, needs to go through in order to incorporate the changes that the new revolution in digital technology has brought about. These changes are more than setting up a web site and starting to do electronic commerce, they are changes in the way the organization uses and shares information, and works with its suppliers, customers and staff.

14. Advantages in e-ing the organization are introducing lower costs, easier management, increased service and a higher profile. In product manufacturing e-ing the organization brings innovation to the business, offers lower cost raw material and more efficient manufacturing techniques, and increases service. Inside the organization awareness-raising is essential as well as building knowledge and creating competence.

15. E-ing the organization brings it closer to the customers and empowers front-line staff; studies show that customers want consistency and predictability in service delivery, and they also want services tailored to suit them. An e-organization is closer to the customer, and provides as well good customer information. In suppliers' relationships, e-ing the organization allows better customization. Customers speak to the supplier, the response is faster than in the traditional organization. Operations e-ing an organization should take account of its corporate structure, its legacy system and includes re-examining the paper systems (how they are used and starting from the beginning).

16. Most importantly, e-ing an organization is about information and knowledge, not about technology; technology is simply the underlying mechanism. This was clearly indicated by Mr. Ian Worrel early in the Meeting³ (ESCWA/ED/2000/WG.1/2).

¹ Gerald Karl Helleiner, “Markets, Politics and Globalization: Can the Global Economy be civilized?” United Nations Conference on Trade and Development, 10th Raul Prebisch Lecture, December 2000, p. 5.

² Hans Hansell, “Business Process and Electronic Commerce”, paper presented at the Meeting (E/ESCWA/ED/2000/WG.1/2).

³ Ian Worrell, “E”ing your Organisation”, presentation made at the Meeting.

17. Equally important, to function effectively on a global scale, this invisible economic web must be built upon a solid infrastructure of internationally recognized norms in business information and practices, and upon a clear legal structure. This foundation exists in concepts such as electronic business and a global legal framework, in standards such as United Nations Rules for Electronic Data Interchange for Administration, Commerce and Transport (EDIFACT) and the United Nations Layout Key, used for electronic forms, as well as the developing standards for electronic business for Extensible Mark-up Language.⁴

B. BUSINESS PROCESSES AND ELECTRONIC COMMERCE

18. Unlike the Industrial Revolution, which was based on capital, the critical resource of information and computer technologies (ICT) is knowledge. This unique feature offers transition and developing countries the potential to catch up and compete with developed countries. It can also improve the chances for developing countries to leapfrog some long and painful stages in the development process, thereby saving time and resources. Experience has shown that ICT can bring early, substantial and measurable benefits, both to developed and to transitional and developing economies. Thus access to ICT should not be restricted to already advanced social and industrial environments.

19. Lack of awareness on the part of governments and private enterprises of current trade facilitation practices and developments can thus jeopardize the future as well as the competitiveness of their country's products.

20. The roles of trade parties are changing. Business to business or business to consumer trade involves more direct interaction between the supplier and the final consumer. This is a major change from the traditional supply chain, which relied on intermediaries. Surveys have shown that the future pace of growth and profitability of trade for physically transported goods, especially in global transactions, will heavily depend on the ability of sellers, more and more going on-line, to deliver goods efficiently. In other words, delivery of ordered goods must indeed be reliable, i.e. take place within the time-frame agreed and, furthermore, the future buyer will expect this time-frame to be narrowed down.

21. In the new economic environment, the two key aspects of international competitiveness are low transaction costs and total response capability, i.e. the capability to compete on the basis not just of price and quality, but also of price, quality, time and service. Effective time and service response to support total response capability is becoming increasingly important given the technology induced changes now being introduced into the supply chain.

22. As firms consider how to exploit their competitive advantages throughout the transaction chain in a wide range of locations, great emphasis is being placed on the effectiveness of business processes by which they operate. They do it by simplifying and streamlining their processes. It includes a thorough examination of what information is required for effective decision taking at each stage of the supply chain, such as: business process re-engineering, managing the virtual enterprise, value chain management, which are all concepts that have many features in common.

23. Information and process management between the buyer and seller have until recently been largely restricted to transactions between large firms, i.e. the multinationals, and their subsidiaries. They involved high cost, technical electronic data interchange processes and secure networks (VANS). With the advent of the Internet, this will change. Small and medium-sized firms would then be able to adopt similar cost reduction, time saving systems and create closer business relationships with their buyers and, indeed, their own suppliers as a consequence. Transactions between not only businesses, but also governments, business and consumers can be built for specific purposes, limited in time, as opposed to established and permanent business relationships. This open approach could provide for a virtual enterprise model.⁵ (Hansel; E/ESCWA/ED/2000/WG.1/2).

⁴ Hans Hansell, "Business process and electronic commerce", paper presented at the Meeting (E/ESCWA/ED/2000/WG.1/2).

⁵ Ibid.

C. E-COMMERCE FOR DEVELOPMENT: NEW OPPORTUNITIES
FOR SMALL AND MEDIUM-SIZED ENTERPRISES

24. Electronic commerce and Internet are impacting the world's economy at exponential rates. In international trade, E-commerce increases the accessibility of foreign products for domestic consumers and businesses and helps to get a better deal on imports. It allows businesses to raise global awareness about own products and services and expand participation in international trade. Both importers and domestic producers enjoy cost savings from new technologies and e-commerce. The economy can make better use of existing capital and labour and can attract new capital investment. New business and employment opportunities are generated if opportunities to obtain appropriate skills can be made available.⁶

25. Given its fast rate of diffusion and moderate adoption, e-commerce may create new opportunities especially for small-scale entrepreneurs in the member countries. It puts the potential contribution of the Internet and its commercial application to serve the development process in poor countries.

26. Entrepreneurs in developing countries face several problems in penetrating world markets and in expanding or diversifying their domestic market operations. The limited capacity to satisfy quality, cost and logistic requirements of customers as well as building trust are well known. There is therefore a need for more sector- by-sector research on the scope for small entrepreneurs to tap into this new reservoir of technologies.

27. There is also a risk that new technology will cause a division that will reinforce existing income and wealth inequalities within and between countries. This is at a time when a major potential benefit of globalization is the freer movement of technology, including information and communication technology (ICT) across borders. In principle, ICT can have a leveling effect, giving developing countries greater access to markets, to information, and to other resources that are otherwise inaccessible.⁷

28. The need to overcome infrastructural bottlenecks in telecommunications, transport and logistics must be addressed. The governance aspects of e-commerce, including consumer protection, security of transactions, privacy of records and intellectual property are issues to be reckoned with. As for the challenge of creating an environment of trust for conducting e-commerce, one possible solution would be to adopt self-regulated codes of conduct groups of like-minded e-entrepreneurs. Another would be to foster the participation of small and medium-sized enterprises (SMEs) in internationally accredited web-based online rating schemes. At the same time, the extension of the telecom and Internet infrastructure can be left to private investors. Official development assistance (ODA) may also be used to support private investments.

29. Finally, ODA may also have an important role to play in supporting the e-commerce in the member countries. For example, ODA can support building legal and regulatory capacity and assist the participation of member countries in negotiations and discussions that are shaping global rules and protocols governing e-commerce. There may, for example, be scope for initiatives targeted specifically at small e-entrepreneurs in member countries, as with support for their individual or collective participation in Web-based online rating schemes or with publicly-sponsored portals for the wares of small producers in order to overcome barriers to trust.⁸

D. MULTILATERAL LEGAL AND POLICY FRAMEWORK FOR E-TRADE

30. This issue, which is related to the views of the WTO on e-commerce, includes a brief review of the General Agreement on Trade in Services (GATS) with regard to e-trade the scheduled GATS' commitments on cross-border access as well as the GATS regulatory disciplines and the general exceptions.

⁶ Lee Tuthill, "World trade and E-Commerce", presentation made at the Meeting.

⁷ Andrea Goldstein and David O'Connor, "E-commerce for development: prospects and policy issues". Paper presented by Maurizio Bussolo at the Meeting (E/ESCWA/ED/2000/WG.1/4).

⁸ Ibid.

31. WTO has taken initiatives with regard to telecommunications and IT that help to facilitate e-commerce and supporting e-commerce infrastructure. These initiatives include:

(a) Basic Telecom Agreement. So far, 80 governments are committed to open markets to the competitive supply of public telecom services. More governments are expected to agree to such commitments in WTO accession negotiations and in the new trade round;

(b) Information Technology Agreement. So far 52 governments have agreed to eliminate customs duties by January 2000 on such products as computers, telecom equipment, semi-conductors, and software. Discussions are underway to expand the agreement;

(c) GATS does not rule out electronic delivery of services from its scope and coverage. Services delivered electronically, however, can benefit from all the same obligations and commitments as services delivered by other means. These services include, for example, most-favoured nation (MFN) treatment, transparency, domestic regulation, competition safeguards, the guarantees of the GATS Telecom Annex, and scheduled commitments on market access and national treatment.

1. Scheduled GATS commitments on cross-border access

32. Depending on the sector, between 70 and 95 per cent of the industrialized country members commit themselves to barrier-free access to their markets for cross-border supply of the following: computer services (data processing, software implementation and other computer-related services); tourism (travel agencies and tour operators); certain professional services (advertising, architecture and engineering); and business services (management consulting and market research).

33. For developing economies the profile is as follows: in tourism services, where by far the greatest number are committed, 25 per cent list no barriers to cross-border market access for travel agencies and tour operators. In most computer services, around 30 per cent have made commitments, between 10-13 per cent list no barriers to cross-border supply. Between 25-35 per cent commit on professional services, such as management consulting, engineering, architecture and accounting; only 6-7 per cent offer free cross-border access.

2. GATS regulatory disciplines

34. In services where commitments are undertaken, WTO member governments must administer all measures applicable to services or service sectors in a reasonable, objective and impartial manner. Moreover, in relation to licensing, qualifications and standards, the procedures, criteria and other requirements on service suppliers must be based on objective and transparent criteria and cannot be more burdensome than necessary to achieve the policy objective of the measure.

35. Traditional approaches to licensing, technical standards and qualification requirements were not originally designed with e-commerce in mind. Could e-commerce present any special needs in relation to avoiding unnecessary regulatory barriers to trade? Some examples to consider: on-line professional services are thought to be an area of considerable potential for developing countries; how easily qualification and certification requirements for such services can be satisfied by non-resident suppliers; and for financial services, how easy or difficult it is to obtain new licenses or to adapt existing licenses to include net banking activities.

3. GATS general exceptions (article XIV)

36. The provisions for general exceptions of the GATS touch on many very prominent e-commerce legal issues. For example, they cover policies designed to protect morals (e.g. on-line obscenity, gambling), to protect life or health (e.g. on-line sale of drugs requiring prescriptions, consumer protection); to prevent deception and fraud; deal with contract defaults (e.g. on-line investment scams, consumer protection); and to protect individual privacy and confidentiality (e.g. abuse of information obtained or supplied on-line).

37. However, it is important to bear in mind that these provisions of the GATS also contain some important disciplines regarding the exercise of exceptions. The exceptions must not be applied in a way that

is arbitrary or that unjustifiably discriminates between Members. They must not be used to disguise trade restrictions, i.e. to achieve protectionism instead of stated policy goals. And they must be proportionate to the problem or issue being considered. In GATS terminology, such measures must be necessary to achieve the policy objectives. For example, could a less trade restrictive means achieve the desired result? It is clear that important concerns fall within the GATS exceptions. Perhaps these disciplines can also help foster a positive, enabling environment for e-trade.

II. THE PILLARS OF E-COMMERCE

38. Electronic commerce combines business and electronic infrastructures that enable online buying and selling of goods and services. The pillars of e-commerce are prerequisites for nurturing successful e-commerce operations in a country, they vary from raising awareness to upgrading technical aspects of accessing the internet and drafting laws and regulations. In short, the pillars of e-commerce include: the technical infrastructure, namely, telecommunications; Internet services and online security; the financial and banking infrastructure; the legal infrastructure; and human resources development.

39. This section presents the major issues that were discussed during the session on the pillars of e-commerce. The discussions covered the impact of e-commerce in buying and selling habits, as well as security and trust over open networks, the situation of the information and communication infrastructure in the ESCWA region, and the identification of management gaps towards e-commerce in Lebanon. There was a discussion also on the importance of arabization of the content of websites in order to encourage wider awareness and e-commerce operations in the region which was considered at length.

A. IMPACT OF E-COMMERCE ON BUYING AND SELLING

40. Though still in its infancy, electronic commerce has already emerged as a competitive arena of immense proportions, and of equally immense importance. E-commerce is rapidly becoming synonymous with commerce itself. Success in the 21st century will go to the businesses that most effectively use Web-enabled technologies to enrich customer relationships, respond rapidly to changing market dynamics, reduce inefficiencies, and work in concert with partners to bring customized products and services to market quickly.

41. Though the Internet will eventually compel every organization to re-evaluate its business strategies and core processes, Mr. Fakhoury, Business Development Manager in Microsoft, showed that any company, from a small business to the largest enterprise, can utilize the Internet today to compete more effectively, building on their existing investments.⁹ This is because e-commerce offers business opportunities to existing companies. Most organizations introduce the Internet to their core processes in stages, gradually making e-commerce part of the way they do business. The three areas currently offering the most immediate and sizeable return on investment in e-commerce are marketing and selling over the Internet (business-to-consumer e-commerce), handling basic administrative functions online (corporate purchasing and employee self-service), and supply chain rationalization (business-to-business e-commerce).

42. Using the Web for direct marketing, sales and service, what is currently referred to as business-to-consumer e-commerce, was currently the most common and easily understood form of electronic commerce. Across consumer-targeted e-commerce sites, several keys to success were mentioned during the discussion including:

- (a) Creating a shopping experience that attracts and retains customers;
- (b) Communicating with customers over time and offering them higher levels of customer service;
- (c) Offering price promotions and cross-selling products based on customers' individual preferences;
- (d) Offering customers a familiar and secure way to pay for the items they choose and delivering them in a timely fashion;
- (e) Considerations in building the right solution;
- (f) Understanding the potential of e-commerce is one thing; realizing it is quite another. Companies can face numerous implementation issues:

⁹ Charbel Fakhoury, "Microsoft in E-Commerce: Impact on Buying and Selling Habits", presentation made at the Meeting.

- (i) Cost: Electronic commerce requires significant investments in hardware, software and services. Businesses should be sure to work with technology partners who can provide cost-effective solutions that will evolve and adapt to meet new opportunities and challenges;
- (ii) Value: Companies should always expect their technology investments to deliver meaningful, lasting returns. That means working with technologies scalable enough to support future growth and flexible enough to adapt to changes in market forces, business requirements and competitive strategies;
- (iii) Security: The Internet provides universal access, but companies must protect their assets against accidental or malicious misuse. What's more, privacy systems should safeguard the personal information critical to building sites that create customer and business confidence. System security, however, must not create prohibitive complexity or reduce flexibility;
- (iv) Existing systems: Most companies already use information technology (IT) to conduct business in non-Internet environments, such as marketing, order management, billing, inventory, distribution and customer service. The Internet represents an alternative and complementary way to do business, but it is critical that e-commerce systems integrate with existing systems in a manner that avoids duplicating functionality and maintains usability, performance, security and reliability;
- (v) Traffic: In the business-to-consumer arena especially, the success of an e-commerce implementation hinges on attracting and retaining visitors. That means developing a comprehensive marketing and advertising strategy, and partnering with established Internet portals capable of driving traffic to your site;
- (vi) Interoperability: When systems from two or more businesses are able to exchange documents without manual intervention, businesses achieve cost reduction, improved performance, and more dynamic and efficient value chains.

B. BUSINESS INTERNET

43. While defining business Internet as a practical tool to link people and knowledge for business success, e-commerce means using online technologies to eliminate inefficiencies and build stronger and more effective business relationships with customers and partners. Whereas, knowledge management consists of gathering, organizing and distributing information to the people who need it, so they can act on it quickly and effectively. Infrastructure is the integration of the business systems to create a digital system that optimises the flow of information within and between organizations, enabling them to act, react and adapt to customer or market demands faster and better than the competition.

44. Several important benefits from using business Internet were mentioned during the discussion. They included:

(a) Combining the power of the Web with the versatility of the PC to optimise basic processes, such as finance and production, and to make customer feedback electronically accessible to an organization's employees, enabling them to identify problems and opportunities quickly and respond effectively;

(b) Closer customer interaction, which means understanding partners and customers better than competitors can provide a crucial competitive edge. By using the Internet to connect all points in the value chain, the Business Internet provides improved access to information, and acts quickly on customer and market feedback and helps an organization to build closer, deeper relationships with its customers and partners;

(c) Faster business reflexes; in an increasingly connected world, an organization's speed of response is fast becoming the key competitive differentiator. The Business Internet can improve an organization's responsiveness to unplanned events, such as a change in a competitor's prices, the potential loss of a valued

customer, or a new market opportunity. It does this by connecting all parts of an organization to each other and to business partners, and providing common views of business information. This allows globally dispersed groups to collaborate effectively, evaluate options, and broadly communicate a unified response;

(d) Improved strategic thinking; organizations can strengthen their strategic thinking by making accurate information on market opportunities, sales revenues, customer accounts and competitors easily accessible to employees, and by giving them tools with which to derive fresh business insight from that information. The Business Internet helps businesses create digital feedback loops that change strategic thinking from a stand-alone activity to an ongoing process closely integrated with regular business activity.

C. SECURITY AND TRUST IN E-COMMERCE

45. Another issue addressed by the Meeting is the issue of security and trust in e-commerce. Typical insecurities accompany the development of open networks. Although electronic communication offers commercial opportunities, insecurity arises from the fact that communicating parties are remote and most of the times do not know each other. Technologies were then called upon to ensure two major concerns: security and trust in electronic communication.

46. Trust in e-commerce is all about creating awareness on security issues related to the new ways of trading and interacting over the Internet. There is a difference between the new electronic channels for trading and interacting over the web and the traditional trading channels, the ownership of data and how clients, partners and suppliers are accessing each other's systems and applications to conduct their business transactions, which require special means of security to be applied in order to control these interactions.

47. Being so dependent on computer systems, networks and the Internet, businesses are faced with serious threats, such as threats to system availability, data privacy, data integrity, users and infrastructure. It is important to train and educate all levels of management and employees on various security issues. It is equally important to focus on the importance of developing organizational information security policies and procedures that are considered prerequisites for implementing security solutions and products. To maintain security is much more difficult than to establish it. Security is a process that never ends because of the continuous changes in technologies and threats. When threats are defined, the requirements for building strong, comprehensive and cohesive security solutions that will allow the business to move forward safely in the new global market can be defined. As part of the solutions, some of the new technologies are used for securing electronic transactions.¹⁰

48. The most adopted technology today is cryptography, which has two applications: electronic signature and encryption. Electronic signature generally refers to an identifier that is attached to an e-message and whose purpose implies the legal concept of a signature applied in an electronic environment, whereas a digital signature is a type of electronic signature, it is a technology based on the public key cryptography.

49. Unlike a written signature, a digital signature has no intrinsic association with any person; it is only a numerical sequence. Thus, a mechanism is needed in order to associate a particular person to their digital signature. This is where a certification authority (CA) comes in as a specialized entity that ensures this matching. A CA issues a digital certificate containing the public key and other relevant details. Therefore, digital signatures are linked with the trustworthiness of a CA. It is essential that a CA is reliable and trusted in order to inspire confidence in the information it certifies.

50. Professional recognition of a CA could be one way to grant trust to users accreditation and is one procedure for their professional recognition. Equally important, security procedures and authentication should be as transparent as possible for users.

¹⁰ Abdel Karem Friehtat, "E-Commerce Security", p. 3, paper presented at the Meeting (E/ESCWA/ED/2000/WG.1/3).

51. In addition, governments should develop a legal and policy framework to support all appropriate technologies and in the meantime avoid laws that force the private sector to designate a particular technology for electronic authentication. Standards should evolve in response to the needs of the commercial market.

52. In large public and widespread communities of users with diverse needs of communication and information security, more than one CA is needed: one particular concern is the relationship between various CAs, they need to be organized into what is referred to as a the public key infrastructure (PKI).

53. There has recently been a number of legislative and regulatory activities around the world in respect of electronic signature and the operation of PKIs. There is a growing trend towards divergent national approaches on the policy and legal aspects of electronic signatures and certification authorities. This diversity is reflected in existing national laws. It is the differences in the definition of written signatures that are influencing the course of national and international policies on electronic authentication. Countries with Common Law traditions consider written signature requirements as formalities that have been largely eliminated, policy-makers in these countries focus mainly on the intent of the signor. However, countries with Civil Law traditions tend to consider written signature requirements as security requirements, which has a strong public policy aspect. These divergent tendencies tend to weight the level of security required in order to produce a legally valid electronic signature.

54. The divergence in approaches regarding authentication technologies has negative repercussions on the recognition and inter-operability of electronic signatures and certificates across national borders. Policy makers in the ESCWA member countries would have to be aware of the extent to which the functions of a written signature remain relevant in the context of an electronic signature before rushing into regulating and adopting discordant standards to what constitutes an electronic signature in different jurisdictions. Otherwise, this would lead to a lack of legal certainty in cross-border transactions that depend upon the validity of electronic signatures.

55. Solutions might include adopting an internationally oriented and harmonized definition of signature based on a balance between security and party autonomy; or adopting a hybrid approach that explicitly gives effect to contractual agreements concerning the use and recognition of e-signatures and that introduces a certain type of mandatory secure e-signatures; the power of contract, if enforced, might also be a solution; implementing a global web of cross-certified CAs could encourage the actual use of e-signature methods. Development of such standards can be done on two levels: by amending national written signature requirements to make them go with the requirements of the Internet age, and by continuing work on international agreements and policies.

56. There are no specific national laws or regulations in the member countries concerning digital or electronic signatures or other kinds of electronic authentication yet, neither are there any significant measures to evaluate and approve or accredit existing CAs or other providers of trusted electronic services. But most ESCWA member countries are in the process of preparing new regulations. ESCWA member countries could establish for this purpose a regional committee that would coordinate work between member countries and that would assist them in implementing their policies (technical, legal, economic levels). This is attainable as member countries all have civil laws.

57. The international legal acceptance of authentication techniques will be impeded if each legal system tends to apply its own concept of what constitutes a signature, which will also lead to increasing trade disputes at the international level. For this purpose, harmonization, which should not entail efforts to achieve uniformity in authentication measures, might offer suitable solutions: it must include facilitating the use and recognition of authentication measures across borders; making laws governing electronic authentication consistent across jurisdictions in order to promote growth of global electronic commerce; furthermore, cooperation between governments for an international or regional framework for harmonizing existing rules is a must.¹¹

¹¹ Linda Karam, "Certification and Digital Signature", pp. 20-21, paper presented at the Meeting (E/ESCWA/ED/2000/WG.1/9).

D. THE INFORMATION AND COMMUNICATION INFRASTRUCTURE OF THE ESCWA REGION

58. One of the most important prerequisites for the spread of electronic commerce, particularly in developing countries, is the availability of a robust ICT infrastructure. The availability of inexpensive and powerful hardware and software reduces the costs of setting up an electronic commerce activity regardless of the geographical location. However, the relatively high cost of connection to the Internet for most member countries undermines their competitiveness in this regard.

59. The ICT continues to expand exponentially. While wired Internet access passes from analog and Integrated Services Digital Network (ISDN) telephones to cable television, Digital Subscriber Lines (DSL) and fibre optic connectivity, the wireless community is exploding with Personal Digital Assistants (PDAs) cellular technology, and satellite data delivery.

60. On the regional scene the Thuraya Satellite Telecommunications Company, Ltd. of the United Arab Emirates launched its first GEO satellite on 20 October 2000. Though its initial services were directed to voice countries, Thuraya will be moving to data services as soon as possible. Thuraya will cover the whole of Western Asia, eastern Europe and a good part of Asia.

61. However, the wireless infrastructure is strategically important to mobile users. It will enable day-to-day applications of individuals to be carried out over the cell phone. Applications like paying a parking meter or buying a soft drink or reading the menu of the nearest restaurant with, perhaps, a PDA will be the order of the day. Wireless Application Protocol (WAP) will help define information exchange over mobile and wireless links, and Bluetooth connectivity standard will enable close-proximity connectivity of Internet applications.

E. THE TELECOMMUNICATION SECTOR IN THE ESCWA REGION

62. Most member countries are at a critical juncture in the evolution of their telecommunication network. While the availability and diversity of the telecommunication networks in the GCC countries compares to the world's best networks, other countries have not yet achieved their potential.

63. It was pointed out that many developing countries went through accelerated growth for telecommunications during the first half of the 1990s. The growth in most of the member countries was not as high as in other regions such as Asia or Latin America. Thus, telecommunication networks in the region, with the exception of some GCC countries, grew at a relatively slower rate than in other developing regions of the world.

64. The telecommunication sector in the member countries is dominated by state-owned monopolies in basic networks and services. In most cases, these monopolies are self-regulating and operate under traditional public management systems. Telecommunications are often viewed as an extension of the states' social service tradition, making a reform a highly charged political issue.

65. In the second half of the 1990s, and more specifically since 1998, modernization of the telecommunication sector and reform of the regulatory environment is under discussion in most, if not all, member countries. Some countries, like Jordan, have already initiated restructuring efforts and have begun to reform their legal frameworks. Other countries have turned their state-owned operators into private corporations, a few have partially privatised their operators and a few more are planning similar actions in the near future.

F. THE POSITION OF THE ESCWA REGION IN ICT INDICATORS

66. The position of the ESCWA region relative to the world averages shows that the ICT infrastructure of the ESCWA region is inferior to them. Growth in mobile and the Internet in some member countries is increasing at a very fast rate, however, and the region has still far to go to reach the rate of growth world-wide.

67. Telecommunications in member countries have traditionally been a government undertaking. There is not always a direct link between the type of ownership of the telecom operator and performance, but still some of the fastest growing networks in the region are government owned. It is doubtful, it was argued, that the region's telecommunication infrastructure can be raised to its full potential with the present resources available to most of the governments in the region.

68. It was highlighted during the session that:

(a) Nearly 30 per cent of the Arab countries have introduced private capital participation in their national carriers;

(b) By the end of 1999, some 30 per cent of these countries allowed competition in mobile services, while competition in Internet services was permitted in 60 per cent of the countries;

(c) In both the mobile and the Internet markets consumers were not gaining the full benefits in terms of lower prices;

(d) Prices to end-users remain considerably high due to the lack of competition in the leased lines market;

(e) No country in the region allowed competition in leased lines services;

(f) Internet growth calls for a set of new policies that addresses the opportunities and challenges of the Internet;

(g) The basic ICT indicators in the region have values well below world averages.

69. Despite the encouraging growth that has taken place in the region in the last two years, it is felt that the region requires faster and more homogeneous growth in ICT services geared towards the populations in most countries of the region.

70. Finally, a clearer vision is needed on: the private sector role; government role as a facilitator and a regulator; private sector participation in the policy-making process; and regional co-ordination.¹²

G. IDENTIFYING MANAGEMENT GAPS TOWARDS E-BUSINESS IN LEBANON

71. One area of special interest in e-business is the technology infrastructure and its impact of delivering automated solutions to the Lebanese industrial and productive sectors. In particular, businesses in Lebanon face new challenges as they confront the realities of the current dynamic and aggressive external business environment.

72. Almost ten years have passed during which the complete renovation of technology resources of the country could have been made, and yet hundreds of Lebanese businesses have not met the challenge of using modern technology in a strategic manner. Most of the solutions sought are directed towards short-term goals that reflect a deficiency in appreciating the real value of adopting new technology.

73. Mr. Hussin Hijazi's paper¹³ aims to shed light and assess the behaviour and willingness of Lebanese managers towards the adoption of sound decisions to implement electronic commerce. The challenge is to be part of the global village of the twenty first century.

¹² Abdulilah Dewachi, "The Information and Communication Infrastructure of the ESCWA Region", paper presented at the Meeting (E/ESCWA/ED/2000/WG.1/15).

¹³ Hussein Hijazi, "Identifying management gaps towards e-business: a study from Lebanon", paper presented at the Meeting (E/ESCWA/ED/2000/WG.1/10).

74. Lebanese managers representing a selected sample of firms of the service sector are not aware of the existence of a gap in their organizations. According to Ado Mikdashi (1999), only 62.5 per cent of the managers claim that they assess their firm's management system gap; 45 per cent declare that they have a system to detect internal deviations; 35 per cent admit that their firm is satisfied when current standards are met. Other managers, who are aware that a gap exists, fail to acknowledge its magnitude and importance. In fact, 57.5 per cent of managers take it for granted that the primary cause of low performance is lack of knowledge of a job and the correct way to perform it.

75. To implement electronic commerce, three common phases are identified (Internet: Bryant, 1999). These phases are as follows: replacing the manual and paper-based operations with electronic alternatives; rethinking and simplifying the information flows, and using the information flows in new and dynamic ways.

76. What these phases lead to is an extensive review of the current business model in its most interconnected details. That is, the application of a comprehensive performance measurement technique like for example, either HPT (based on gap analysis) or the Balanced Scorecard Model (based on an integrative outlook of the financial role with other complementary roles as discussed earlier).

77. E-business processes are the set of business strategies, internal activities, and corporate practices that an individual company must undertake to participate in e-commerce. Furthermore, an e-business is one that is implementing fundamentally reworked business processes internally and externally to take advantage of information to compete in the digital market-space. Again, what is observed here is the stress on the business management process that incorporates a firm's practices towards its constituencies and their preparation to meet the dynamic changes best represented by the change of demographics in the socio-economic environment of the business. To deliver customer delight through e-commerce necessitates a healthy organizational environment to the employees supported by an enabling technology.

78. Finally, managers who intended to establish e-commerce are recommended not to begin by looking for, or trying to sell, management on a new business model. If there is a problem with the existing business model, they must fix it. They should not try to create a new business plan and e-commerce strategy at the same time. They have to know what the existing value propositions are and stick to them. The advice given here is not for Lebanese managers only but is generic. Applying an internal audit of the strengths and weaknesses is a very useful exercise to determine how the current core competencies match the opportunities that the Web is offering small as medium-sized businesses.

79. Lebanese managers, it was argued, represented by a selected sample of managers from the service industry, reflect wishful thinking rather than real understanding of the concepts of management necessary to compete in the realm of the twenty-first century. Their preparation to manage e-business still needs a major revision. Their current business models to assess how they adopt the necessary tools and requirements to conduct e-business and at the same time remain in a competitive position need to be reconsidered.

80. The priority in this case is not as much in the adoption of technology than it is in the management and preparation of their human resources.¹⁴

H. ARABIZATION AND LOCALIZATION OF E-COMMERCE

81. In the new economy, e-commerce is growing at a very high rate in the developed countries. This trend is gaining ground in the ESCWA region. If e-commerce is to be effective in promoting trade within and between the countries of the region, its Arabization is essential. In a knowledge-based-economy, knowledge should be in the mother language if this economy is to flourish at the local or national level.

¹⁴ Hussein Hijazi, "Identifying management gaps towards E-business: a study from Lebanon", paper presented to the Meeting (E/ESCWA/ED/2000/WG.1/10).

82. The main issue related to the Arabization of e-commerce discussed on intranets and on the Internet was the major efforts needed to enhance the presence of Arabic on the Internet. Reference was made to needed standardization of Arabic for e-mail, browsers, domain names, EDI, terminology etc.

83. There is a need to increase arabized economic content on the Internet. Automatic and computer aided translation from and to Arabic was stressed as a tool to e-commerce. Arabization of financial transactions and e-banking or pc-banking was also mentioned and examples in the ESCWA region were given.

84. Finally, the real acquisition of e-commerce technologies will not be real in the ESCWA region if local R&D in this field is not established. This R&D is essential to enhance the absorption capacity of the region to these technologies.

85. The practical recommendations during this session to improve e-commerce in the region include measures to improve the local infrastructure, schemes to promote the spread of the use of the Internet in Arabic, programmes to foster R and D in e-commerce and national initiatives to improve the environment for flourishing e-commerce.¹⁵

¹⁵ Mohammad Mrayati, "Arabization and localisation of E-commerce: status and requirements", paper presented to the Meeting (E/ESCWA/ED/2000/WG.1/14).

III. CASE STUDIES: STATUS OF E-COMMERCE IN SELECTED ESCWA COUNTRIES

86. Case studies of four ESCWA member countries (Egypt, Jordan, Lebanon and United Arab Emirates) were presented at the Meeting. These four country case studies drew a clear picture of the state-of-affairs regarding e-commerce in the region, including the technological, financial and legal aspects of e-commerce in these four countries.

87. According to the case studies Egypt has begun on the right track but faces the challenge of a large population, language and some cultural hindrances that might hamper full progress of the e-commerce.

88. The case study on the Emirates showed that the country has in place most of the requirements needed to launch e-commerce. It has high income per capita, well-developed telecommunications and banking infrastructure, and world-class shipping and custom systems. The country however lacks the required legal infrastructure and suffers from a lack of skilled labour force.

89. In Lebanon, private initiatives are gaining increasing importance. Lebanon has a good human resources base and could even benefit the region. It is at the early stage of e-commerce with great potential for the growth of electronic trading. Lebanon, therefore, may take an advanced position in the region, if government endorsement and regional strategies are put in place.

90. Jordan has also embarked on a number of initiatives to promote IT and e-commerce. However, there are a number of limitations.

91. Following the discussion of the state-of-affairs of e-commerce, it was concluded that although a number of steps towards embracing e-commerce have been taken, there was still a need to enhance awareness and human resources, and to improve the technological, banking, and legal infrastructure of the member countries. In the following, the case studies are presented in more details.

A. E-COMMERCE IN EGYPT

92. The structure of the telecommunications industry in Egypt still represents a relatively traditional structure, in which the incumbent operator, Telecom Egypt, remains the dominant player. There are however signs of change.

93. To build awareness and catalyse the use of the Internet in Egypt, the government decided to allow the Cabinet Information and Decision Support Center (IDSC) and the Regional Information Technology and Software Engineering Center (RITSEC) to offer free Internet accounts to government agencies, non-governmental organizations and private companies as part of a long-term government funded campaign. This initiative was taken to promote awareness of the Internet and boost the number of users in such sectors as trade, manufacturing, health-care, tourism and social services.

94. The existing challenges and impediments to electronic commerce in Egypt can be summarized as follows:

(a) Lack of awareness and education is the most important deterrent to the utilization and adoption of e-commerce in the developing world. Indeed the lack of awareness and knowledge of the potential of e-commerce serves as a barrier in itself;

(b) E-commerce infrastructure. Egypt has yet to establish a certificate authority, to act as a trusted third party for electronic transactions;

(c) Telecommunications infrastructure and planning. The lack of broadband bandwidth in Egypt is an obstacle against efficient and timely access of the Internet. This is a serious deterrent if Egypt is to compete on the international level;

(d) Financial services infrastructure. There are as yet no online payment systems in Egypt that operate using local financial institutions. This is an obstacle to finalization of the introduction of electronic commerce;

(e) Legal system. Cyber laws are needed to protect both consumers and sellers of electronic services and products. The legal framework is crucial to protect local and international businesses operating in the country. In addition, the government plays an important role in liaising with the private sector and ensuring that it can provide a self-regulated environment, which can enable electronic commerce to flourish;

(f) Pricing structure. The utilization of e-commerce implies paying the price of an Internet connection, a computer, telephone line and so forth. The cost of this equipment and the installations are relatively high in a country where per capita income is only \$1,100;

(g) Social and psychological drawbacks. There are several culturally related obstacles to e-commerce in Egypt. These cultural issues inhibit top-level decision makers from investing in a new and, what appears to them to be, unknown technology.

95. In the paper was also a set of recommendations concerning both the public and private sector in Egypt¹⁶ (E/ESCWA/ED/2000/WG.1/7) as follows:

(a) There is a need to encourage and facilitate business associations, key private sector players, Chambers of Commerce, investors' associations, Federation of Egyptian Industries and Trade Points to "educate, lobby, co-ordinate and motivate" the society to embark on e-commerce;

(b) The private sector and governments must work together to create new human resources policies that better prepare students and workers to meet the challenges of the emerging digital economy;

(c) Since telecommunication is considered a strategic investment for maintaining and developing a competitive advantage in both local and international markets the private sector should be encouraged to invest in the upgrading of local telecommunications infrastructure and value-added services in urban and rural areas. A by-product would be building know-how and facilitating employment;

(d) Moreover, there is a need for general IT policy reform and for more public endorsement of e-commerce on the highest government levels since this would induce the proper "line of control" over all ministries, and not just from the Ministry of Economy and Foreign Trade. There is also a need for an e-commerce task force consisting of both government and private sector bodies to determine the national e-commerce strategy and legal and financial infrastructures required;

(e) A general policy to enable financial services, credit system furthering and endorsement of standards for financial transactions should be induced to furnish the appropriate environment for e-commerce. The possibility of establishment of a CA must be looked into and endorsed;

(f) There is a need to encourage the use of Arabic content (and perhaps iconographic content) on the Internet to attract local and Arab customers to use the Net, in general and for e-commerce purposes. Crossbreeding and intercultural operations need to be stimulated;

(g) The country should participate aggressively in the formulation process of international negotiations and agreements instead of waiting till these agreements crystallize and then being forced to accept them as is;

(h) Governments need to look into the means for reducing general and specific costs related to IT and electronic commerce in addition to sources for funding e-commerce related projects;

¹⁶ Magda Ismail, "Electronic Commerce in Egypt", paper presented at the Meeting (E/ESCWA/ED/2000/WG.1/7).

(i) There is a need for practical projects on the sectoral level, to create a sectoral user base, that address the needs of the community in order to attract industries to venture into e-commerce. The need for centres of excellence, aid centres for SMEs and telecentres, compromise solutions for e-commerce in rural and remote areas, should be addressed.

B. E-COMMERCE IN JORDAN

96. Although e-commerce in Jordan is still nascent there is optimism. The Government has shown some enthusiasm about developing information technology, e-government and e-commerce. Recently, the Government launched the Reach Initiative, which aims at developing an action-plan towards the development of the IT sector in Jordan. Within this plan an e-commerce component was included, an issue with which entrepreneurs are increasingly coming to terms.

97. So far, e-commerce operations have been elementary in Jordan despite some positive steps that have already been taken. Since 1995, when the country introduced the Internet the number of subscribers have multiplied. There are currently around 120,000 users and seven functional ISPs. Besides, the Jordan Telecommunication Corporation (JTC), which has been privatized, has adopted conducive policies of enhancing services and reducing prices. In addition IT skills especially for computer and Internet services have increased to meet the demand in the country and its neighbours. There are however numerous impediments that need to be removed and preparations to be carried out to create an enabling environment.

98. Jordan is a small country of 4,000,000 inhabitants but a small number of Internet users, which creates a principal e-commerce problem. Among this small population only a limited number of citizens are computer and Internet literate. Another problem is awareness; only a small percentage of Jordanians, even among the Internet users, know what e-commerce is and what it entails to make it work. The few Jordanians that are connected on-line have been exposed to the few websites that advertise products and the few malls that attempt to sell on-line. Most of the commercial websites in Jordan are aimed more at cataloging and advertising products than selling on-line. The majority of these sites aim at the local Jordanian market, which is small and bound by cultural inclination to distrust using machines for making business.

99. Finally, there are only a small number of credit-card holders in Jordan, and banks are not ready yet to handle Internet payments. The legal infrastructure to provide consumers and businesses with confidence and security about e-commerce needs is absent.

100. E-commerce operations in Jordan are minimal. They consist mainly of transactions undertaken by few Jordanian businesses with their non-Jordanian partners. Most of these transactions are taking place on websites that are hosted outside Jordan where Internet services and telecommunications facilities are by far more developed. The transactions are also coupled with methods of payment done through foreign banks that offer payment gateways, usually located outside Jordan. Therefore the few business to business (B-to-B) transactions that are likely to thrive are processed by businesses that do not use Jordanian facilities.

101. These B-to-B transactions tilt towards importing and not exporting. There is, however, a chance for some enterprises in Jordan to export through B-to-B transactions by selling to wholesalers outside Jordan.

102. In conclusion, e-commerce experience in Jordan is sporadic, modest and dependent on private initiatives, but could have been more successful had it been given the right guidance to e-commerce solutions. It also reveals the lack of a comprehensive national e-commerce strategy. Jordan does not have a strategy or a programme for the orientation and the management of e-commerce. Such a strategy could be translated into a programme that involves both public and private sectors in identifying problems and requirements of e-commerce in the country.

103. In the paper on Jordan presented to the Expert Group Meeting, included the following recommendations:

(a) The Jordanian Government should draw up a comprehensive e-commerce strategy that could be translated into a programme managed by the representatives concerned with the technical, legal, financial and administrative aspects of e-commerce;

(b) E-commerce awareness and computer and Internet literacy should be increased, and universities and vocational schools should incorporate e-commerce and e-business management into their curricula;

(c) Telecommunications enterprises should further decrease least-used line fees and dial-up connections; and Internet service providers (ISPs) should enhance their services and terms to enable a bigger population to connect to the Internet;

(d) The legal system should expedite the process of drafting laws concerned with e-commerce and computer crimes, and banks should promote credit cards holding and provide payment gateways.¹⁷

C. E-COMMERCE IN LEBANON

104. E-commerce in Lebanon is in its early stages. Some e-commerce ventures have been established, and new ones are starting to appear. However, e-commerce still lacks the Lebanese public endorsement from consumers, who usually give thrust to e-business.

105. Several factors affect the status of e-commerce in Lebanon; principal among them is the telecommunication infrastructure. During the 1990s, the Government established an excellent telephone network infrastructure throughout the Lebanese territory. The network is extremely reliable, exceeding one million land lines, and is adequate for the initial stages of e-commerce. However, it will soon be outdated in the absence of a proper upgrading. Attempts to regulate and use cable for Internet use have failed so far. ISPs in Lebanon do not have local interconnection. Lebanon lacks a network operations centre to coordinate Internet traffic and avoid bottlenecks. High cost of telecommunications is another major obstacle for e-commerce development in Lebanon.

106. ISPs play a major role in e-commerce. Recently, a local ISP price war has cut rates and produced better service to consumers. It has also forced some smaller ISPs to fold. The increase in cyber-traffic has required higher investments in hardware, bandwidth and personnel. In general, all operating ISPs in Lebanon charge adequate fees to consumers that are comparable to their United States counterparts. However, the quality of service may not always be the same. ISPs in Lebanon charge relatively high fees for hosting services, which is causing Lebanese sites to prefer being hosted in the United States. As one of the first countries in the Western Asia to establish online presence and resulting knowledge, Lebanese companies have become exporters of ISP set-up expertise, particularly in Saudi Arabia and Egypt.

107. Lebanon still maintains a government monopoly on the telecommunication sector, except for the mobile phone sector that is currently in disaccord with the government. Privatization of the telecommunication industry, as it is happening across the globe, would increase the competitiveness of the market, reducing prices and providing better service to customers.

108. Software development companies are aware of the growing need to create and support software products that facilitate e-commerce. Some companies are migrating their existing applications to web-based applications. By doing so, their clients also migrate to the new platform, increasing awareness and traffic on the Internet. Other newcomers, inspired by fresh concepts, are creating web-based applications only, such as Internet malls, auction sites and pure content sites. Being leaders in web development in Western Asia, Lebanese web development companies have polished their expertise to export their skills to the surrounding countries.

109. Even though Lebanon has a good base of information technology (IT) specialists, there is still need for enhancement. While IT specialists are technically very good, they lack management expertise, particularly for large-scale software development projects. Moreover, keeping talented recruits on board for the long term is a challenge for Lebanese companies.

¹⁷ Rita Fakhoury, "Electronic Commerce in Jordan", paper presented at the Meeting (E/ESCWA/ED/2000/WG.1/13).

110. The major hindrance in the way of Internet and e-commerce in Lebanon is lack of computer literacy and Internet awareness. This is especially evident with the senior management of Lebanese companies who have not had a chance to exercise structured continuing education.

111. Online banking has a very promising future in Lebanon, partly because of the rich expatriate market and because banks have substantial cash flow to finance large-scale projects. Some banks have started their own online banking ventures, providing a great added-value service for Lebanese expatriates.

112. The lack of confidence in e-business in Lebanon is reflected in fear of non-delivery of goods, theft and fraud of credit card numbers. As long as e-awareness is not conducted aggressively and the private and public sectors do not establish e-commerce regulations and provide consumer security, the trust issue will be a major hindrance to online shopping.

113. To establish a legal framework Lebanon is making an effort to enforce intellectual property protection in conformity with the WTO and the World Intellectual Property Organization (WIPO) agreements. The Lebanese Copyright Law of 3 May 1999 updates the national protection of copyright and neighbouring rights to new technologies and recognizes software as a copyright-protected work. Draft legislation related to the Evidential Law in Lebanon was submitted to the Council of Ministers to recognize electronic documents as equivalent to those in handwritten form and accept them as evidence in legal proceedings. It also recognizes electronic signatures. A special interest group is working on a draft law to provide official accreditation to Certification Authorities (CAs) and to give the government regulatory authority over them. Lebanon has seven commercial registries that issue trademarks with no examining entity to supervise them. Until a central agency is established to control the application of intellectual property rights and trademarks, players of the e-commerce market may experience violations of their business designs and trademarks.

114. There are only a small number of Internet users in Lebanon, the Lebanese e-commerce market, therefore, is very limited. The e-commerce projects are focusing on exporting goods and services from Lebanon rather than becoming pure consumer projects catering for local markets. The business-to-business sector of e-commerce in Lebanon is more active than business-to-consumer.

115. To overcome shipping and distribution problems to their target markets, companies team up with businesses in target countries to establish a presence. Merchandise is shipped in large quantities, stocked at partners' warehouses or in affiliate locations and, finally, shipped to customers. Direct shipment from Lebanon is impossible, given the high shipping costs charged by fast courier companies for small shipments, as well as bureaucratic export procedures that result in long delays.

116. The paper¹⁸ also included a set of policy recommendations for the promotion of e-commerce in Lebanon.

D. E-COMMERCE IN THE UNITED ARAB EMIRATES

117. Much optimism was shown during the Meeting concerning e-commerce in the United Arab Emirates and this optimism is well founded. The study¹⁹ shows that the United Arab Emirates have the best telecommunication facilities in the ESCWA region; it utilizes the latest technologies in telephone and Internet services. Credit-card coverage and Internet usage are high, and payment gateways and on-line security solutions are available. In addition, human resources, local and foreign, could be described as having the adequate skills to operate electronic commerce.

118. Most of the requirements of electronic commerce are available in the United Arab Emirates, though little e-commerce is taking place. Many firms have websites but actual on-line buying and selling is minimal both at the local and global levels. A number of online shops and a few malls have been established. However, most of these online stores are mainly for advertising and marketing.

119. This modest e-commerce performance is due to a number of factors including the cultural factor, which renders consumers reluctant to use the Internet for trade with parties they cannot see. Moreover,

¹⁸ Antoine Feghali, "Electronic Commerce in Lebanon", paper presented at the Meeting (E/ESCWA/ED/2000/WG.1/6).

¹⁹ Rita Fakhoury, "Electronic commerce in the United Arab Emirates", paper presented at the Meeting (E/ESCWA/ED/2000/WG.1/12).

language may hinder the use of e-commerce. Arabization of the Internet might help to increase the number of subscribers, as the local population may relate more to Arabic enabled sites. In fact cultural traits of this region, when taken into consideration and applied in the content of websites, will be an asset to the promotion of e-commerce. Another factor is trust. Many customers are weary of using their credit cards and the leakage of personal data and information. The most important reason for the lack of e-commerce practice is the combination of the lack of awareness about what electronic commerce really is and what solutions are available, and the lack of laws and regulations to protect such transactions and consumers from online fraud. What is needed at the Federal level is a strategy by the Government to manage and regulate e-commerce in the country; and more awareness and drafting of laws and regulations to embrace electronic commerce. At the emirates level, Dubai stands out, it has shown a great deal of government initiative, which has produced some awareness about e-commerce. However, Dubai needs further awareness raising and the promulgation of laws and regulations to govern and manage e-commerce transactions.

120. Dubai's enthusiasm about moving forward with e-commerce and e-government is worth noting. The Government of Dubai has launched three main initiatives aiming at embracing globalization by utilizing the latest communication and information technologies for daily management of government as well as for doing business. Dubai Internet City and e-government are two initiatives that were launched, in 1999, one to be implemented by October 2000 and the other in October 2002. The third initiative by the Government of Dubai, the first on-line virtual mall at www.tejari.com, was also launched in 2000. Tejari.com, which is the first digital business-to-business market place in Western Asia, was developed by Oracle and was launched by the Dubai Ports Authority. Tejari has already been operational and has the Government of Dubai as its largest member; the latter has moved its procurement operations onto tejari.com.

121. The Dubai electronic government (e-government) project aims at connecting all government offices to each other as well as to citizens through the Internet. It aims at facilitating governmental transactions. Citizens will be able to pay their dues, apply for licences and obtain approval and information from the different governmental departments without having to go to those offices in person. Hence e-government will encourage more citizens to be connected to the Internet and consequently to be exposed to e-commerce.

122. Some of the several government institutions, whose databases will constitute the electronic network for e-government, have already migrated their services to the Internet; they are already offering online services to citizens. It is now possible to pay traffic fines via the Internet by entering the Dubai Police website. The Dubai Department of Ports and Customs offers the facility of on-line transaction processing up to the clearing of goods. At the same time, the Dubai Electricity and Water Authority offers the possibility of on-line bill reading and soon it will provide a payment facility over the net.

123. In sum, although the United Arab Emirates is fertile ground for a thriving e-commerce, it still has no blueprint for launching and managing e-commerce. At the Emirates level, Dubai is quite robust in joining the developed world in using information and communication technology (ICT) for both governing the Emirates and conducting commerce in and out of it. Dubai is cashing in on the reputation it has earned in the past two decades as a commercial hub to establish a state-of-the-art e-commerce centre namely Dubai Internet City (DIC). Since most of the pillars of e-commerce are available in Dubai (and the other Emirates for that matter) with the political will and adequate financing, there are prospects for Dubai to rise as a regional e-commerce centre.

124. Finally it was suggested that there is a need for a comprehensive e-commerce strategy that addresses technological, legal and administrative infrastructures. It was also recommended that the United Arab Emirates should enhance skills and raise awareness about e-commerce as well as create an e-commerce culture. Moreover, the Government should consider having new telecommunications enterprises to break the monopoly of the Emirates Telecommunications Corporation (Etisalat). This should work towards further enhancing telecommunications and services in the Emirates.

125. Furthermore, more banks should move to Internet banking providing their customers with services that facilitate online payment. At the same time, the Emirates need to expedite the drafting of laws that recognize digital signatures and deal with computer crimes.

IV. THE LEGAL AND REGULATORY ASPECTS OF E-COMMERCE

126. International growth in electronic commerce will attract more and more users to transact electronically in member countries. This however also requires development of a legal environment conducive to the development of electronic commerce. Legislation is the key issue to procure online security and to trust that it would promote e-commerce.

127. During the session on legal aspects, issues were identified and they are outlined below.

128. Consumer protection; the contractual framework of Internet services in the Arab sites such as Internet service provision and virtual malls; computer-related crimes; jurisdiction and applicable law in cross-border e-commerce disputes; electronic evidence under the proposed Lebanese legislation dealing with the legal recognition of electronic documents and signatures.

129. Owing to the potential for cross-border transactions inherent in e-commerce, the enacted and the proposed legal framework would have to be consistent not only regionally but also globally. For this reason this section will illustrate the European and American experience in e-commerce legislation.

A. CONSUMER PROTECTION

130. The development of electronic commerce poses a number of legal and consumer challenges. Consumers therefore should be protected and the law adapted to include technology changes. Legal protection for consumers who use electronic commerce should assist in the development of consumer confidence in this new way of doing business. Consumers using e-commerce need to be entitled to at least the same level of protection as provided by the laws and practices that apply to the existing forms of commerce.

131. Consumers can be subject to the following: theft (for instance of credit card numbers that are transited through the web; fraud and extortion, particularly in selling counterfeited goods; imitation of a genuine product without authorization and especially with intent to deceive or defraud; deceptive marketing and advertising, misleading in the description of the product or service; latent defect of goods that imply a defect in a product that is not discoverable by reasonable or customary inspection.

132. Existing legislation that protects consumer from these conducts is the civil law on primary liability, the criminal law, and the rules of applicable law and jurisdiction. In fact, there is a potential inability or lack of effectiveness of current legislation to regulate electronic commerce, primarily because of the potential failure to extend such legislation to the virtual world. The disparity of law enforcement between traditional and electronic commerce leads policy makers around the world to adopt specific rules and regulations on related issues. In this perspective, new consumer laws, policies and practices are needed in order to protect the consumer from fraudulent, misleading and unfair commercial conduct on the net.

133. It has been recommended that a centralized authority be formed at the regional level, composed of representatives from governments in the ESCWA region to focus on a project that brings out new regulations for consumer protection.²⁰

B. CONTRACTUAL FRAMEWORK OF INTERNET SERVICES ON ARAB SITES

134. Security in electronic commerce and consumer protection are two basic motivations behind the illustrated presentation given during the legal session on the main commercial transactions in the electronic market place.

²⁰ Ahmad Al Samdan "Electronic Commerce and Consumer Protection in Legislation on Kuwait", paper presented at the Meeting.

135. Commercial laws and, more particularly consumer laws, policies and practices are established to help build consumer trust by protecting consumers from unfair or deceptive acts or practices and by helping to establish a more balanced relationship between sellers and consumers in commercial transactions. The incentive behind the implementation of the legal infrastructure is to ensure trust and stability in the economic system.

136. While domestic retail markets offer consumers the assurance that their interactions and purchases are covered by legal and private sector consumer protection, in the global electronic market-place such protection cannot necessarily be presumed. Limited or non-existent face-to-face contact between businesses and consumers aggravates the need for a predictable and trustworthy electronic market-place. Business-to-consumer electronic commerce will not reach its full potential until consumers are assured that the electronic environment is a safe and predictable place to do business. Businesses and consumers need to be aware of the legal and self-regulatory rules that apply to them online.

C. BASIC PRINCIPLES OF COMMERCIAL LAW APPEAR TO HAVE AN INTERNATIONAL NATURE

137. Commercial law is commonly referred to as a supra-national law. This consideration broadens the scope of its application and makes it apply to cross-border transactions regardless of the means of communication (post, telex, fax, telephone, etc.), particularly the Internet, which guarantees instant communication between remote parties.

D. CONTRACTING OVER THE INTERNET

138. Contracts formed in the electronic environment of Internet are generally considered distance agreements. However, a typical characteristic of sales contracts being made through virtual malls distinguishes them from traditional distance-selling contracts: While commercial sales generally identify with pre-contractual negotiations, it is not very often the case in electronic purchases through virtual malls, in which consumers have no face-to-face contact with sellers. In other words, consumers are not offered the possibility to negotiate the terms of the contract; their choice is limited to whether to accept the transaction, as it is offered online, or not to accept it. As a result, contract terms and conditions that are usually published on vendors' sites are dictated to the consumer. In this regard contracts should abide by the rules and regulations of submission ().

E. PRINCIPLES OF CONSUMER PROTECTION

139. At present, few Internet Service Providers or virtual malls have drafted self-regulatory rules and practices that establish effective and enforceable consumer- protection mechanisms that would go a long way towards building consumer confidence and trust. These rules and practices apply to businesses and wholesalers that provide products and services on their web sites. For illustration, the AOL Certified Merchants Program and Guaranty, AT&T WorldNet Service and NiftyServe set stringent rules for businesses wishing to offer their services on-line.

140. Based on data and statistics on contracting in e-commerce and particularly on those agreements reached through existing Arabic Virtual Malls in selected ESCWA countries, in the paper on Contracting in E-Commerce²¹ (E/ESCWA/ED/2000/WG.1/17) it was concluded that:

(a) There is no legislation that specifically regulates the activities of virtual malls, consequently, national civil and commercial laws apply;

(b) There are no national and regional agreements or policies that would regulate commercial activities in the electronic environment, whereas, elsewhere in the world professional agreements in the context of virtual malls are being done.

²¹ Wassim Harb,

, paper presented at the Meeting (E/ESCWA/ED/2000/WG.1/17).

141. Regarding the contract formation in Arabic virtual malls, it concludes that:

(a) The terms of e-contracts in Arabic virtual malls do not in all cases respect the principles of consumer protection and safe commercial transactions;

(b) Most of the offers available on-line are limited to the statement of the final offer, without any reference to the terms of the agreement. Even if such terms of agreement are available, they are not referred to explicitly in the purchasing page of the web.

F. COMPUTER-RELATED CRIMES

142. The technological developments in computers, networking and software engineering have helped in the transition from paper to paperless transactions. The electronic environment of Internet has raised the question of how to know to what extent traditional law is applicable to these new situations. Internet usage is accompanied by two major concerns in respect of criminality over the Internet: conventional laws are outdated and there are no laws yet that specifically regulate cyberspace.

143. Computer abuse is considered to be illegal, unethical or unauthorized behaviour relating to the automatic processing and transmission of data. There has been a great deal of debate among experts on just what constitutes a computer crime, yet computer crimes reasonably include a wide variety of criminal intentional offences and activities punished by the criminal law. While many crimes using computer technology mirror traditional offences, such as theft or fraud, the paper on computer crimes distinguished four types of computer crime:

(a) Illegal entry or stay in an automated data system: The access or interception to a computer system or network without a right by infringing security measures, or stay in a computer system or network without a right and by technical means of communication;

(b) Intentional damaging of a system: The erasure, damage, deterioration or suppression of computer programs without a right;

(c) Intentional damaging of data: The erasure, damage, deterioration or suppression of computer data without a right;

(d) Computer-related forgery: The alteration of data contained in documents stored in a computerized form is forgery, and is a crime. Computers, however, can also be used as instruments with which to commit forgery. Fraudulent alteration and counterfeiting emerged with the evolution of computer technologies: as did high resolution copying, modification of documents and even the creation of false documents without benefit of an original, the production of documents whose quality is indistinguishable from that of authentic documents.

G. INABILITY OF CONVENTIONAL RULES TO ACCOMMODATE COMPUTER CRIMES

144. In the conventional legal system, general provisions regarding damage to property were developed to protect tangible objects; thus, their application in the information sphere poses new questions. It is obvious that in the new approach the legal evaluation of corporeal objects differs considerably from the evaluation of incorporeal objects such as information and data. There is an important conceptual distinction between corporeal and incorporeal objects that is legally relevant. New laws amending the traditional statutes on damage to tangible property should be enacted in order to make the violation of incorporeal objects criminal as well. The Lee Ashurst's case in the United Arab Emirates is an illustration: A British man has been arrested and charged with computer hacking in the Emirates after allegedly breaking into the country's telecommunications system reports. It was the first time anyone has been arrested in connection with such computer crime in a West Asian country. The 21-year-old Briton, Lee Ashurst, a computer engineer in Dubai, was reportedly caught by security specialists at the Emirates National Telecommunications (Etisalat) and consequently arrested. He was formally charged and released on bail several hours later. The maximum sentence for this type of crime is six months in prison. The case highlights the need for amendments to the

country's criminal law. Since there is no law that punishes such behaviour, it has become urgent to issue legislation that classifies high technology crimes and stipulates penalties for them.

145. The paper on Computer-related crimes²² included the following recommendations: (a) the need to undertake training and specialized courses in informatics; (b) the need to follow up international developments, namely, the Working Group on Electronic Commerce of the United Nations Commission on International Trade Law (UNCITRAL); and (c) the need to amend existing laws in order to make them application to e-commerce needs.

H. E-COMMERCE: JURISDICTION AND APPLICABLE LAW

146. Since e-commerce is currently expanding considerably, it is not limited by physical or geographical boundaries between states. However, business deals, contacts and contracts conducted via the Internet can lead to disputes in the same way as traditional business and any trade activity. These relations will have links with more than one national legal system because parties in electronic countries might have different nationalities and might be domiciled in two different countries. As a result, whenever a dispute cannot be settled by an extra judicial procedure, it would be necessary to have recourse to the rules of conflicts of law and determination of jurisdiction. Solutions to the crucial questions below might be found in comparative law and in some case laws:

1. Which court has jurisdiction to hear the dispute?

147. In the European Community, where the question of jurisdiction in a specific civil or commercial matter is not dealt with by community law, it is covered by the Brussels Convention of 1968²³. At the end of 1997 the European Council launched a work on the revision of this Convention with a view to aligning it with the Lugano Convention.²⁴ Consequently, unanimous political agreement laid down the principle of the jurisdiction of the state where the consumer is domiciled. The European Council also prepared a Directive on Injunctions for the Protection of Consumers' Interests (98/27/EC), which improve and accelerate the recognition and enforcement of judgements in civil and commercial matters between its Member States. Another directive covering Distance Marketing of Consumer Financial Services states that, in the event of a dispute, the consumer has the option of suing his contracting partner either in the courts of the state of the consumer's domicile or the contracting partner's domicile, whereas the consumer may be sued only before the courts in the state of the consumer's domicile.

148. In the meantime, the Directive on Electronic Commerce, adopted on 18 November 1998, stipulated that the competent jurisdiction is the one where the service provider is established. The Consumer Protection Organization criticizes this view.

149. Clearly, there is a contradiction in the solutions offered by the European system since the directive on e-commerce offers a different solution than the one stipulated in other directives and in the revision proposed to the Brussels Convention.

2. Which law will the court apply to determine the rules applicable to that dispute?

150. The Rome Convention of 1980 stipulates that the law relating to the consumer's habitual residence should apply. In addition, the Distance Selling European Directive stipulates that whenever contractual terms designate a non-member State law to apply, Member States should take appropriate measures to ensure the consumer receives the level of protection required by the above-mentioned Directive.

²² Habib Mulla, " (E/ESCWA/ED/2000/WG.1/16).

", paper presented at the Meeting

²³ Brussels Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters.

²⁴ Convention extending the principles of the Brussels Convention to relations between the Member States and Iceland, Norway and Switzerland.

151. In general, the main incentive behind the designation of jurisdiction and applicable law in the resolution of e-commerce disputes should be consumer protection. This concern must always be taken into consideration in finding solutions to international commercial disputes between private parties.

152. In the United States of America, different courts dealing with these jurisdictional issues have reached different conclusions as to how far their jurisdiction extends. There has been substantial litigation since 1996, for example, *Maritz v. Cybergold*; *Inset Systems v. Instruction Set*. The competent state jurisdiction is generally the one that presents a sufficient link with the litigious activity and that most closely connects to it. As for the applicable law, the trend in United States courts is to have recourse to the law that is most favourable to consumers.

153. Moreover, experience in cyberspace justice shows that alternative mechanisms to dispute resolution are emerging; online ombudsman offices and virtual magistrates are appearing. Good examples of mediation and arbitration procedures are the WIPO Mediation and Arbitration Center and Cairo's Arbitration Center. These procedures have the advantage of being developed by leading experts in cross-border dispute settlement, and are appropriate for a wide range of technology disputes.

154. Mr. Younis Arab²⁵ (E/ESCWA/ED/2000/WG.1/11) addressed some conclusions and recommendations in the legal session of the Meeting. The international nature of the Internet requires solutions that have to be consistent not only at a national and regional level but also at a global level. This could be done through the following:

- (a) International cooperation in setting Unified standards and regulations for e-contracts and services;
- (b) International cooperation in setting consumer protection measures, especially protection measures against illegal activities and abuses over the Internet;
- (c) An international agreement on the rules of conflicts of law and determination of jurisdiction that respects the freedom of contracts and protects consumers;
- (d) The implementation of new adapted national laws in the Arab world or even through drafting a unified law in respect of new technologies in the region;
- (e) Encouraging an alternative mechanism for the resolution of disputes;
- (f) The establishment of neutral bodies that focus on implementing an operational and legal framework for the administration of disputes relating to the Internet and electronic commerce.

155. There has recently been a number of legislative and regulatory activities around the world in respect of a new technologies law, particularly in Europe and the United States. In parallel, countries in the Arab region should raise awareness of the significance of the "E-law" and the implications for its development and progress in the region. Implementing new laws and regulations that are adapted to new technologies and the information society is a must. Since no steps have been taken yet in this regard in the ESCWA region, policy makers should refer to the comparative law in order to be better informed of the course of national and international policies on the new technologies law. What has to be avoided is to import the legal framework completed around the world through governmental bodies and/or international organizations. Rather, policy makers in the ESCWA region should implement rules and regulations tailored to their needs and adapted to their legal social and political environment.

²⁵ Younis Arab,

, presented a paper to the Meeting (E/ESCWA/ED/2000/WG.1/11).

I. ELECTRONIC EVIDENCE IN LEBANON

156. New forms of private communication are emerging over open networks. New forms of contract have come out in the paperless environment of the Internet and open networks. Therefore, the digital world has obliged us to reconsider the basic concepts of the traditional law and created the need for new regulations in respect of electronic documents and negotiable instruments as well as in issues relating to electronic evidence.²⁶

157. At present, the Lebanese legislation related to evidence requires that all transactions that exceed a certain amount (LL 40,000) have to be confirmed by a signature on paper to be enforceable. The principle is that of the predominance of the written form in evidence procedures. However, with the use of alternatives to paper-based methods of countries and storage of information, a new legislation will better define the legal understanding of events occurring in the virtual world and will introduce an updated approach open to developing technologies.

158. A draft law on Electronic Documents and Electronic Signature is now being examined in the Lebanese parliament. Lebanon is the first country in the Arab world to take an initiative in this field of law. The proposed new law is basically inspired by the French experience; it amends some articles related to evidence in legal proceedings in the Lebanese Code of Civil Procedure. During the Meeting, the main points of the proposed legislation²⁷ were discussed, as noted below.

159. Legal recognition of electronic documents as equivalent to the written form of documents. Traditionally, instruments for writing are combined with paper to form a document. The draft law broadens the legal understanding or definition of writing to make it include electronic documents. Consequently, electronic documents can be used to conclude legally valid contracts.

160. Recognition of electronic documents as a proof in legal proceedings. The draft law gives electronic documents legal value as evidence in legal proceedings. Their probative force would be then equivalent to the one attributed to paper documents. However, requirements should be met to this end: first, it should be possible to identify the author of the e-document; secondly, the e-document should be generated and stored in a manner to guarantee the veracity and authenticity of its content. Furthermore, the draft law gives the court the authority to assess the probative force of an e-document.

161. Legal recognition of the electronic signature. The concept of signature is intimately linked to the use of paper. Similarly, the electronic signature is a concept closely related to electronic documents since a written document needs a signature to accomplish its legal goals. In fact, those two issues overlap. The draft law recognizes the validity of electronic signature.

162. The Lebanese Code of Civil Procedure does not currently given any definition as to what constitutes a signature. However, the draft law has introduced a broad definition of a signature based on a functional approach: based on the analysis of the purposes and the functions of traditional handwritten signature. The following functions of a signature were taken into consideration: to identify the author of a document and to attest that the author approved the content of that document.

163. The draft law establishes broad criteria based requirements to consider an electronic signature legally valid. It will be supplemented later by technical regulations to fill in the procedural details for e-signature validity requirements. The motivation behind this initiative is to provide flexible principles for facilitating the use of modern techniques in various circumstances.

²⁶ In this regard, work has been done at the international level. The United Nations Commission on International Trade Law (UNCITRAL) formulated, in 1996, a Model Law on Electronic Commerce that covered two problem areas: mandatory paper-based documentation requirements in the major laws of most countries, and the incompatibility of domestic contractual frameworks in international trade requirements. In parallel, the European Commission has adopted directives that implement a legal framework on electronic commerce and related issues. Similarly, work has been done at a national level. National laws on evidence and electronic signature have been adopted worldwide.

²⁷ Fawzi Khamis, . Paper presented to the Meeting (E/ESCWA/ED/2000/WG.1/19).

164. According to the draft law, electronic signatures, most of the time linked with the trustworthiness of third trusted parties (particularly Certification Authorities), are presumed valid until the contrary is proven in court.

165. Legal recognition of authentic acts () carried out through electronic means. The draft law has declared in broad terms, the possibility of recognizing in principle the legality of authenticated acts carried out through electronic means.

166. The exemption of electronic contracts from the multiple-copies requirement in contacting procedure. In the Lebanese legal system, the notion of an original being unique is particularly relevant to documents of title and negotiable instruments. If an original were defined as a medium on which information was fixed for the first time, it would be impossible to speak of an original document in countries accepting electronic documents. For this reason, the Lebanese legislator has chosen to abolish the distinction between a written original and an electronic document.

167. Forgery of electronic documents and electronic signatures. Since the rules and principles of forgery and non-repudiation are not tailored to be applied in the electronic environment, the draft laws refers to forthcoming technical regulations for listing the requirements needed for forgery and non-repudiation control in electronic transactions.

168. It was recommended during the Meeting that since the court has an express authority in pending litigation, judges need to be fully informed about new technologies law. Conferences and seminars are one way on spreading knowledge in technical issues in the jurists' community. The Ministry of Justice, the Higher Judiciary Commission in Lebanon (), the Lebanese Order of Lawyers and the Lebanese Parliament should assist them in training programmes and activities.

J. THE AMERICAN AND EUROPEAN EXPERIENCE

169. Having raised the question of whether new laws are needed to apply to the virtual world of computer and informatics, the Meeting referred to the latest amendment in the French legislation on evidence, dated 13 March 2000, and to the recent directives adopted by the European Commission as a step towards updating the traditional law.²⁸

170. In a period of six months, two directives came into force in Europe. The first objective in adopting a clear and general framework was to ensure a proper functioning of the Internal Market in Europe by instituting a common framework, which takes account of certification, and which covers certain legal aspects of e-commerce services. The first European Directive on Electronic Signature, dated 19 December 1999, recognizes the Electronic Signature as proof in legal proceeding (*ad probationem*). Moreover, it sets forth for advanced electronic signatures that are based on qualified certificates and that are created by secure signature creation devices. The second Directive on Electronic Commerce, of 8 June 2000, recognizes electronic documents as "equivalent" to paper-based documents (*ad validitatem*), in other words, the Directive prohibits Member States from denying legal effect to an electronic signature solely on the ground that it is in electronic form.²⁹

171. In the past two decades three major events have occurred: proliferation of computer usage, development of automatic data processing and universal communication over open networks. With the emergence of the Computer Law, the originality of the Information Society lies in the fact that the virtual can be capitalized on (*L'immatériel est capitalisable*). In fact, currently, it is referred to as "e-gold".

²⁸ Pierre Catala, "American and European Experience", p. 2, paper presented to the Meeting (E/ESCWA/ED/2000/WG.1/18).

²⁹ Many developed countries have already accomplished the same achievement. For instance, in the United States of America, a law dated on 20 July 2000 came into force in 1 October 2000 aiming at regulating interstate electronic commerce. In the meantime, many other developing countries are in the process of implementing new adapted regulations. Efforts are being done worldwide to adapt legislation to new technologies and to the Information Society, and yet "that it is only the beginning".

Globalization brought up three major issues: (a) contracting on Internet; (c) intellectual property protection; and liability resulting from Internet usage:

(a) Contract formation in the interactive world of Internet is not different from the traditional understanding of contracting in the real world. In fact, the constituents of electronic contracts are the same as the ones required in paper-based contracts: offer, acceptance, capacity, consideration and intention to form a binding contract. However, insecurities to electronic contracting arise from the fact that Internet has an international nature as well as an intangible or virtual one. Typical concerns are whether there is an informed consent in e-contracting, or whether one click is considered sufficient to accept an offer. Can a party retract from a transaction? Which law should be applied? Which is the competent jurisdiction for the settlement of disputes? Answers to these questions lay in self-regulation (or auto-discipline) supported by the legal system and in compliance with what are called the inco-terms;

(b) Regarding Intellectual Property Protection, the patent doctrine of Street vs. signature in the United States has a global potential as it introduced into United States patent law an improved measure of rationality and facility. This doctrine as it is applied to mathematical algorithms and business methods would lead to an increased number of software-related patents in the United States and might likely result in increased patent fillings in numerous other nations. As a result, pressure will be applied in many of those other nations, such as the European countries that include computer programs and databases in the works covered by copyright protection. As for domain names and trademarks, a number of issues continue to require satisfactory solutions as none of the existing mechanisms appear to deal with the issues of legitimate domain name conflicts, parties with competing valid trademarks continue to face significant problems in resolving their disputes;

(c) Fraud and liability result from infringements of rights existing on the Internet and/or from unfair competition in electronic commerce. Offences on the Internet are either traditional offences or new activities emerging from the new technologies, such as hacking. These offences call upon the criminal law and the civil law to be enforced. However, a balance between privacy on the Internet and law enforcement needs to be maintained. Relevant behaviour to unfair competition in electronic commerce is: spamming, framing, squatting... In this regard, Unfair Contract Terms Laws are drafted in order to protect the consumer, which means that if a contract with a consumer contains an unfair term, then, with few exceptions, the term will be unenforceable. Antitrust laws are also applicable in some cases.

172. Another concern is the resolution of international commercial disputes relating to e-commerce and the Internet. In addition to International Law rules, mediation and arbitration procedures are widely recognized as particularly appropriate for technology, entertainment and other disputes involving intellectual property.

173. In conclusion, bipolarity was identified during the Meeting between the principles of government regulation and self-regulation; national security and privacy; legal enforcement and party autonomy. These are different tendencies that govern in Europe and the United States, respectively. Due to the potential for cross-border transactions, effort needs to be consistent not only regionally but also globally. Therefore, the primary concern in e-commerce should be harmonization.

V. THE ROLE OF THE CHAMBERS OF COMMERCE AND INDUSTRY AND BEST PRACTICE OF PRIVATE FIRMS

174. The General Union of Chambers of Commerce, Industry and Agriculture for the Arab Countries (GUCCIAAC) called attention to the pivotal role of chambers of commerce and industry in providing e-commerce guidance; pursuing the governments to set the necessary telecommunications, legislation and educational infrastructure and utilizing their information systems to promote and market national exports. The chambers have a major role in providing the necessary framework particularly with respect to electronic certification, registration and security related issues.

175. A number of e-commerce experiences of private firms from ESCWA member countries include: two Lebanese experiences, Yallah! Shopping a virtual mall and “Kefraya wine production (their operations and their future plans); two experiences from the Emirates: the Bin Zayed Group and Al-Futtaim Trading (the good e-commerce practices and the pitfalls that should be avoided); from Jordan, the experience of Aramex whose operations as a courier company are entrenched with e-commerce was discussed. The discussion revealed Aramex’s future business-to-business e-commerce project; Egypt Home for IT (its online operations in real estate among other online businesses and about potential future operations).

A. THE ROLE OF ARAB CHAMBERS OF COMMERCE IN THE DEVELOPMENT OF E-COMMERCE

176. Commerce relies mainly on the trust of the parties involved. Thus, it is only natural that the parties involved in electronic commerce need to rely on a commonly trusted entity as in traditional commerce. This role can be played in today’s world by the Chambers of Commerce, which have already developed strong trusted ties with the traditional paper-based business in each country and between each other around the world. This is particularly important for e-commerce development in the Arab countries that is still hampered by the lack of winning consumer confidence.

177. The Chambers of Commerce have a major role³⁰ in providing the necessary framework for an efficient use of e-commerce, particularly with respect to electronic certification, registration and security related issues.

178. The first challenge confronting the Arab Chambers of Commerce on assuming their role is to organize a purposeful transformation to e-Chambers, with the new shift serving as an opportunity to develop the role of the Chambers in achieving their goals and in providing up to-date services to the private sector. Once this is achieved, the Chambers can proceed to provide guidance to the business communities in on-line business, pursue the governments to set the necessary telecommunication, legislation and education infrastructure and utilize their information systems to promote and market national exports. On a parallel level, they have to bring together the broader Arab e-commerce strategies and to implement a framework to facilitate future growth and expansion in e-commerce.

179. The leading role of Arab Chambers in shaping and identifying the kind of e-commerce that the Arab countries need for their economic development depends on the priorities³¹ that they also have to set, such as creating new market outlets rather than encouraging over-importation, attracting investments rather than facilitating capital outflows and creating new job opportunities rather than assisting in Arab brain drain and immigration. This is very important in order to avoid being marginalized in the new global environment that is already featuring a huge digital division between the developed economies and the developing countries.

B. YALLAH! SHOPPING: NETCOMMERCE

180. NetCommerce was co-founded in a joint effort between Credit Libanais, Fransabank and Data Management (ISP). NetCommerce provides totally integrated E-commerce solutions in Lebanon, the

³⁰ May Dimashkieh Serhal, General Union of Arab Chambers of Commerce Industry and Agriculture for Arab Countries, “The Role of Arab Chambers in the Development of Electronic Commerce”, paper presented to the Meeting (E/ESCWA/ED/2000/WG.1/5).

³¹ Ibid.

Western Asia, and the rest of the world. NetCommerce helps businesses get online and hence benefit from E-commerce to increase sales, lower costs, improve customer retention, and move ahead of competition.

181. NetCommerce offers online business stores tailor made for retailers including small and medium-sized businesses (according to the merchant's needs and budget). The service features of this store are: 10 pages design for the customer's web site; implementation of a storefront with a shopping cart application; capacity to display up to 10 categories including 20 items each; net transaction amount directed to the merchant's account with the ability to extract financial reports; ability to upgrade to the full store, automatically add the store to search engines, set different order status for his/her shop orders and add his/her web site to NetCommerce section of what are referred to as hot deals.

182. NetCommerce also offers a full store, which is an advanced storefront offering much greater customisation options than in the business store. The service features are: free design for 20 pages with a display of an unlimited number of items; new advanced data features reducing the load on the application server. The storefront performance will improve: Internet users will enjoy a professional redesign, including convenient and straightforward commands; a fully searchable indexed on-line help system, and a business manager interface; offering a powerful Language Pack architecture for both storefront and back office; this shopping mall provides a payment gateway. A payment gateway enables web-merchants to manage online payments in security, by authenticating, verifying and processing credit cards in real-time, thus ensuring and guaranteeing maximum security of the data being transmitted over the network.

183. Yallah! Shopping emerged from NetCommerce as its storefront, which is an online mall that consists of a pool of selected merchants and a payment gateway. An online mall is a marketplace open 24 hours a day, 7 days a week, 365 days a year. This online shopping mall consists of businesses grouped together for potential customers as a place to shop.³²

C. KEFRAYA

184. In a global economy built up on international standards and taking advantage of high technological tools with a relatively low cost compared to that of the multinational producers, Chateau Kefraya (a Lebanese wine producer) has been developing a global quality product proven world-wide, and distributed in four continents with a relatively competitive price. All of this managed according to ISO 9002 norms. Although Kefraya's resources are limited and incomparable with those of multinationals, it still respects the International Standards.

185. The Internet and the E-Commerce are the cheapest and most effective tools to improve the International market share and to avoid a fatal advertising and promotion confrontation with the masters of the game. The result was the penetration of the United States market (165 million cases of wine consumption per year) in two years time. A budget of 5,300 cases is estimated for the year 2000, which is equal to 5 per cent of total sales.

186. Kefraya is using the Internet as a tool, not as an end in itself. Using the Internet helped Kefraya to reach the United States market and to create jobs at in Lebanon. Kefraya did not create an infrastructure in the United States, but through the demand approach it created demand in the United States market. It also used the market as a quality control room: the customers taste the product and give their remarks online.³³

D. BIN ZAYED GROUP

187. The vision for the Bin Zayed Group is to become a market leader in the e-commerce business by providing quality service. Bin Zayed Group, a trading establishment based in Dubai, has ambitious plans for progressive growth, sustainable in the long run, to provide value added, competitive products and services, contribute to optimise shareholder's value and achieve goals of team members who are associated with it.

³² Roger Abi Nader, "NetCommerce and its Virtual Mall Yallah! Shopping", presentation made at the Meeting.

³³ Elie Saab and Philip Abi Rached "Chateau Kefraya Experience in E-Commerce", presentation made at the Meeting.

Bin Zayed Group's primary regional focus is the market of the Arabian Peninsula. The business opportunities available in this region are globally recognized to be immensely viable and the Bin Zayed Group has demonstrated its capacity to identify and effectively implement the most sustainable projects.

188. E-commerce strategies are operated mainly by the three major information technology companies under the Bin Zayed Group Banner, i.e.:

(a) Clientsoft Technology, which helps organizations to develop and deploy business, web, enterprise-wide through a combination of tools, services and software engineering best practices;

(b) AGD Compuware, which is a division in the business of selling and supporting Compuware's client/server tools and utilities. Its products cover the whole application life cycle: development, testing, and systems management;

(c) Gulf Test Factory Services, which provides complete web Solutions from attractive websites to web applications - internal business (Intranet/Extranet) and e-commerce - to extend brand image online. GTFS leverages cost-effective Internet Technologies that will take advantage of the existing infrastructure and extend it to support any growing business.

189. Although e-commerce is not expected to automatically replace conventional trade in GCC countries, companies that fail to initiate use of the Internet in their activities and commercial transactions are most likely to lose customers to competitors utilizing e-commerce technologies.

190. Bin Zayed Group experience has demonstrated that the companies that initiate the use of the Internet and e-commerce are most likely to lose business. However, the most significant barrier to the growth of E-commerce continues to be concerns about security.³⁴

E. AL-FUTTAIM TRADING GROUP OF COMPANIES

191. Al-Futtaim Trading Group Of Companies is a Dubai based establishment. It is a large and progressive business houses in Western Asia, established in 1930 and includes 37 independent companies and has 8000 employees from over 20 nations.

192. Al-Futtaim's point of view is that a fast expanding network is a medium digitising the informational content of the marketplace, and domain that impacts the dynamics of information exchange, evolving from providing content to effecting commercial transactions.

193. As for Al-Futtaim framework of evaluation, it is as follows: relevancy to the nature of business in content and commerce; scope/degree of influence; areas/functions that have potential of impact; evaluate and build/collaborate strategies; and build a revenue/profit model.

194. Moreover, Al-Futtaim Trading Group has a multi-channel strategy that demands the following steps: to evaluate the market segments and map the benefits derived from them; to map the channels to the desired benefits; to assign functions and processes to the channels.

195. Finally, the Al-Futtaim Group believes that there are great opportunities for SMEs in e-commerce. This is inherent in the Internet since it allowed for the democratisation of Commerce. Also, it offers a level playing ground of reach/access. E-commerce also breaks down barriers to access of cutting edge technology and desegregation of the value chain.³⁵

³⁴ Sheikh Khaled Bin Zayed Al-Nehyan "The Experience of Bin Zayed Group in E-Commerce", presentation made at the Meeting.

³⁵ Saeed Al-Barwani "Experience of Al-Futtaim Trading in E-Commerce", presentation made at the Meeting.

F. ARAMEX

196. Established in 1982, Aramex is a global network spanning 135 offices in 32 countries. It has a longstanding and extensive presence in the Western Asia & Indian subcontinent, and deep knowledge of the local and regional markets. Its 1999 revenues were UNITED STATES \$95 million, for 1.8 million shipments of 30 million Kgs. Aramex has more than 2400 employees and 40,000 customers. It gained corporate ISO certification. Aramex figures on NASDAQ listing, it has a strategic partnership with leading express and freight forwarding global companies.

1. *Aramex E-Services*

197. Realizing that e-commerce companies will have to convert virtual interaction with their customers to physical delivery of products, Aramex's strategy is to become the leader in e-commerce initiatives by providing e-fulfilment, supply chain management and e-logistics in the Western Asia and Indian subcontinent.

2. *Aramex E-Fulfilment*

198. The ability is needed to handle all the activities associated with moving e-commerce customers' products to their buyers. This will include: order processing; inventory management; warehousing; reverse logistics; cash-on-delivery (COD) service; customer care; pick, pack and ship.

3. *Aramex.com*

199. Aramex.com is a new portal look, it is a customer effective website: 'What customers need to do on-line'. It provides a full set of services that focuses on serving the customers online. This empowers customers with a more efficient, personalized service that addresses all their specific transportation needs. It also offers advanced shipment tracking, shipment pricing and calculation, pick up request form, and customer care.

200. Also, "Shop the World" is a catalogue-ordering centre that provides its customers with pleasurable shopping, easy ordering and speedy delivery from a wide collection of international catalogues.. Aramex handles the complete order fulfilment of "Shop the World" purchases. The key advantages are: one to one customer care; unique return policy; Internet shopping made easy, official postal address in the United States; shopping from sites that do not deliver outside the United States; saving time and money; payment facility and security; receiving any United States mail (e.g. magazines, bank statements.); delivering food, pharmaceutical products, videos and flower.

4. *New bank-to-bank initiative: AREGON*

201. AREGON is a new company that aims to be the leading B-to-B marketplace in the Middle East and North Africa (MENA Region) and the Indian subcontinent. AREGON aims at enhancing opportunities for businesses in Aramex's target regions, facilitating cross-border trade in a few target regions and exploiting the opportunities presented by the new economy.³⁶

G. EGYPT HOME FOR INFORMATION TECHNOLOGY

202. Egypt Home For IT is a professional Information Technology (IT) organization committed to client service and satisfaction. This is achieved by working in partnership with its clients in order to better understand their market place and business needs. Egypt Home For IT is committed to attracting high calibre people in the IT field with the professional experience and integrity that will contribute to a first-class service to clients. Its mission is to provide its clients with a first-class service tailored to develop and improve their performance and marketing technique; it aims to serve a selected list of clients through developing a long-term working relationship based on mutual trust.

³⁶ Hazem Malhas, "Aramex experience in e-commerce", presentation made at the Meeting.

203. Egypt Home For IT has a strong network of web sites targeting the Arab world and covering a wide range of services. This network of web sites covers a wide range of business fields including real estate, hotel reservations, tenders, press and news, Arabic poems, etc. Moreover, www.EgyptHome.com Real estate, is a leading Egyptian website for marketing real estate properties on the Internet. There is a potential for this site where it can introduce e-commerce in buying and selling real estate properties, furniture, and other related products. The company has also the potential to develop mirror sites for other Arab countries.

204. Egypt Home For IT believes that awareness should be created among: governmental organizations, the business community, schools and universities, and non-governmental organizations. This can be done through: training courses and sessions, technical support and services, arabizing international sites (to serve as mirror sites) such as the yahoo site and through portal sites, and presence on the net.

205. Businesses and individuals should be provided with advanced Internet communication solutions; these real solutions allow businesses to successfully respond to the constantly increasing demands of the market place and to capitalize on technological changes that are continually becoming part of our society.³⁷

³⁷ Abdel Moniem Abdel Hafez El-Beyoumi, "Experience of Egypt Home for I.T. in E-Commerce", presentation made at the Meeting.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

206. E-commerce is playing a major role in globalizing the world economy. It is creating a new way of doing business, reducing distances and bringing companies closer to distribution markets. Internet trading provides the means for cheaper and more efficient commerce that allows enterprises to enter new markets at minimal cost, and consumers to access better quality of goods and governments to procure cheaply and more efficiently. It also allows small and medium-sized enterprises to expose their products to wider markets.

207. To integrate into the global market, the ESCWA member countries would need a major leap in the standards they adopt, in the procedures they use, and in the skills they acquire. Part of embracing globalization is participating in e-commerce, which requires a number of preparations that are not yet put in place in this region. In a few years time e-commerce will not remain an option. Most of the trading giants are increasingly conducting their trade electronically. If ESCWA member countries do not migrate their businesses onto the Internet in time they will risk being marginalized while other developing countries that have already embraced e-commerce will reap the benefits of coming early to the participation in the electronic global market.

B. RECOMMENDATIONS

1. *Creating e-awareness*

(1) The government, non-governmental organizations and the private sector concerned with trade should work individually and collectively to raise awareness about e-commerce. The benefits of e-commerce should be highlighted to businesses and consumers. In particular, small and medium size enterprises should get proper education on how to start e-commerce and how to reap its benefits. Enterprises' upper management should also adopt the new culture of e-business and e-commerce and assist by raising the awareness of staff at all levels of their organizations.

(2) Governments should introduce computer and Internet literacy courses in their curricula through a clear plan to integrate and involve the educational sector in popularizing the Internet to decrease the digital divide between those who are computer literate and those who are not. Part of this plan could also involve training centres to educate government employees on information technology. Computer centres in remote areas should be found to provide the rural population with computer and Internet access.

(3) Private universities and vocational schools should incorporate e-commerce and e-business management courses in their programmes.

(4) Businesses should review their current business model to assess readiness to adopt e-commerce opportunities. They should create internal awareness of the potential benefits that e-commerce can create for all constituencies. Businesses should rely on their core competencies to offer attractive and competitive customer needs.

2. *Human resources*

(1) Developing human resources is crucial to build a solid know-how base in the region. The region should invest in educating and creating a cadre that can develop and maintain high technology applications. Professional skills should be upgraded continuously in the various fields related to e-commerce such as law, banking, communication engineering and software and hardware skills.

(2) The private and public sectors should create conducive environments needed to recruit and keep talented people on board. They should provide benefits, offer training, allow employees to pursue further education and venture into challenging projects.

(3) Private and public sectors could collaborate in preparing skills for the development of an IT industry in the region; they could do that by initiating software management expertise training, particularly for large-scale software development projects.

3. Telecommunications infrastructure

(1) Member countries should privatize the telecommunications industry. Such procedure is known to increase competitiveness of telecommunications services and to reduce prices thus benefiting consumers and encouraging more citizens to subscribe to fixed telephone lines. Introducing open licensing for telecom operators would attract numerous investors in the industry and in infrastructure. This would result in higher quality services, better bandwidth, and more affordable connections – all to the advantage of individual and business consumers as well as government.

(2) Telecommunications authorities should reduce dial-up fees for Internet users and international tariffs on Internet access to Internet Service Providers (ISPs). This will encourage more customers to connect and consumers to engage and spend more time connected to the Internet.

(3) Telecommunications authorities should further decrease bandwidth fees for ISPs, and provide better services to encourage connectivity and in turn make it more feasible for ISPs to provide better services.

(4) Internet service providers (ISPs) should enhance their services and their terms. They should recruit and train professionals in the field of Internet services to reduce interruptions in connectivity and help find solutions for other Internet problems. Once they provide adequate services businesses and Internet users will stop connecting to International ISPs.

(5) ISPs should reduce leased lines fees especially for small and medium size businesses, this is important for the encouragement of e-commerce practice in those enterprises.

(6) Internet access should be extended to cover areas that have not yet benefited from this service.

(7) Network operation centres should be set-up to coordinate Internet traffic and avoid bottlenecks. It is also recommended that each country creates a local Internet node to facilitate the work of both public and private sectors.

(8) Member countries should encourage and expedite the setup of new technologies such as the Wireless Application Protocol (WAP) which is crucial to future e-commerce development.

4. Software development

(1) Instead of only importing know-how from industrialized countries, member countries in the region should engage in developing their own software and adapt and test successful ideas in the West to our region.

(2) In addition, it is recommended that companies in the region position themselves for international alliances. Strategies should include the migration from standard applications into web-based and WAP-based applications.

5. Banking: payments settlement and project funding

(1) Internet banking must increase to include all banks in order to facilitate and increase the volume of banking transactions. Payment gateways for e-commerce transactions should be established. And central banks in the member countries should take charge of regulating e-commerce payments.

(2) Simplifying applications and reducing or canceling fees on consumer credit cards will increase consumer base for e-commerce transactions. Streamlining business-to-business e-commerce procedures will

help to create quick and efficient online banking systems to benefit businesses as well as consumers. Countries should create online credit card processing systems in conjunction with banks.

(3) The banking sector should provide seed capital or loans to help incubate e-commerce start-ups. Within Internet-based projects, it takes large investments before reaping commercial benefits.

(4) Until measures are taken to release investment capital into the regional markets and to establish viable investment mechanisms, e-commerce in the region will be restricted to actions of individual entrepreneurs and will not enter the mass stage witnessed in the West. To develop e-commerce, therefore, the region requires Internet incubators and venture capital firms to provide the required funds and facilities for startups.

6. Internet security

(1) The lack of confidence in e-business in the region is reflected in consumers fear of non-delivery of goods, theft and fraud of credit card numbers. As long as e-awareness is not conducted aggressively and the private and public sectors do not establish e-commerce regulations and provide consumer security, the trust issue will remain a major hindrance to online shopping.

(2) Security of financial transactions is essential. Banks and other credit card issuers should actively explain to customers that risks involved in online credit card transactions are not greater than those involved in ordinary shops. In a similar vein, customers have concerns for the confidentiality of their transactions and the disclosure of their identity by e-commerce entities. Governments must therefore set rules in these regards. The establishment of rules will remove doubts that prevent customers from buying online.

(3) More awareness about online security solutions is needed. Moreover the availability of the different online security solutions should be advertised in order to build trust and confidence among consumers and businesses.

7. Legal issues

(1) Laws that recognize and validate electronic means have not, so far, been put in place in all the Arab countries. Up to date, electronic documents and signatures are not recognized, therefore there is a need to review the laws in order to address and recognize electronic evidence.

(2) Legal frameworks are designed for users to rely on the validity of transactions and to engage in secure and reliable electronic countries. Countries in the region should pass and enforce laws that address intellectual property and consumers rights and protect against online fraud and computer crimes.

(3) Governments should also regulate service providers, and create centralized automated trademark and domain registry.

(4) There is a need to harmonize laws, regulations and standards concerning e-commerce and IT in order to have the IT legislation commensurate with those applied in the rest of the world. Such harmonization could start at the regional level by forming a regional body to study the various laws and regulations needed. At a later stage these laws and regulations could be harmonized with international ones. Reviewing the United Nations Conference on International Trade Law (UNCITRAL) model law is a step in the right direction.

8. Shipping and exporting

(1) The prompt delivery of goods is essential to establish trust between customers and suppliers. Shipping companies in the region therefore should be assisted in delivering customer goods in the fastest way possible. This can be done through establishing a smooth and clear system between government agencies and courier companies and by simplifying export procedures and reducing taxes and fees.

9. *Markets*

(1) The region has a number of Internet users that can constitute a base for e-commerce in the ESCWA member countries. For better results, however, companies in the region should also cater for the international market. Companies should export services and goods in which they have a strong base. Identifying niche markets will help e-commerce to flourish in the region.

(2) In addition, diversifying between business-to-business and business-to-consumer as well as using new venues such as m-commerce (mobile commerce) will help open up the regional markets and the new international markets.

10. *A national strategy for e-commerce*

(1) There is a need for better coordination between the private sector, the public sector and academia concerning the creation and development of e-commerce.

(2) Government endorsement of e-commerce is crucial and a steppingstone to embracing an effective e-commerce. This would induce proper “line of control” over all concerned ministries. Countries of the region should have a comprehensive e-commerce strategy. Such strategy should address all aspects, including objectives such as enhancing infrastructure, promoting human resources and providing laws and regulations. This strategy could be translated into an operational programme managed by a committee/task force that includes representatives of all concerned parties (such as telecommunications authorities, ISP companies, trade promotion organizations, banks, legal authorities...). The task force will determine the national e-commerce strategy and legal and financial infrastructures required.

(3) A national strategy could include the formation of a council for awareness and education in IT and e-commerce. Such a council will launch a continuous promotional campaign run in the media. It could also promote success and failure stories of E-commerce efforts of businesses or government projects. Written case studies would be beneficial as lessons to learn.

(4) The government with the collaboration of the private sector and international organizations should produce a document (booklet guide) where all necessary steps and preparations to start have e-commerce (or e-business depending on capabilities) are stated with supporting diagrams and internet links.

(5) Governments should accelerate efforts towards the establishment of e-practices. They upgrade their constituencies IT literacy and initiate pilot projects for e-service implementations.

11. *A regional strategy for e-commerce*

(1) Not enough regional planning, initiative, framework, or co-ordination has taken place in terms of the Internet and electronic commerce whether on the research and development, Arabization, organizational, regulatory, or awareness level. The need for a regional strategy is important since this would encourage countries within the region to abide by specific initiatives, plans, standards, etc.

(2) The ESCWA region is a good size market for a viable e-commerce. What bolsters such a market is the common language, culture and traditions. E-commerce could be an effective complementary facet of the Greater Arab Free Trade Area. Countries and enterprises in the ESCWA Region should seriously think regional.

(3) ESCWA member countries that are members in the World Trade Organization (WTO) to coordinate among themselves and other ESCWA members in order to participate effectively in the forthcoming round of multilateral trade negotiations of WTO, especially in the suggested new services round, which would include negotiations on e-commerce. The ESCWA countries have to participate in these negotiations to reflect their concerns on this issue.

(4) Arab States in general, and ESCWA members in particular, should take note of these recommendations and work towards incorporating them in the framework of the economic dimension of the forthcoming summit of Arab states which is scheduled to take place in Jordan in March 2001. The leaders of the Arab States could endorse these recommendations and draw policy directions, at both, the national and the regional levels.

12. Arabization of E-commerce

(1) The Arabization of websites should be taken seriously, in order to attract customers in the Arab countries. Arabic enabled websites will attract a large consumer base since such sites will provide concepts that are closer to consumers' Understanding. Crossbreeding and inter-cultural operation needs to be stimulated.

(2) However there are some who believe that sites should be both English and Arabic enabled. Sites that are purely Arabic enabled will form barrier to entry for consumers and businesses from other areas in the world. This in their opinion could isolate some businesses from the rest of the world. It is recommended that sites designed in the region should have the option of both languages.

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Annex II

LIST OF DOCUMENTS

Symbol	Title
E/ESCWA/ED/2000/WG.1/L.1	Proposed organization of work
E/ESCWA/ED/2000/WG.1/2	Business processes and electronic commerce
E/ESCWA/ED/2000/WG.1/3	E-commerce security
E/ESCWA/ED/2000/WG.1/4	E-commerce for development: prospects and policy issues
E/ESCWA/ED/2000/WG.1/5	The role of Arab chambers in the development of electronic commerce
E/ESCWA/ED/2000/WG.1/6	Electronic commerce in Lebanon
E/ESCWA/ED/2000/WG.1/7	Electronic commerce in Egypt
E/ESCWA/ED/2000/WG.1/8	
E/ESCWA/ED/2000/WG.1/9	Certification and digital signature
E/ESCWA/ED/2000/WG.1/10	Identifying management gaps towards e-business: a study from Lebanon
E/ESCWA/ED/2000/WG.1/11	
E/ESCWA/ED/2000/WG.1/12	Electronic commerce in the United Arab Emirates
E/ESCWA/ED/2000/WG.1/13	Electronic commerce in Jordan
E/ESCWA/ED/2000/WG.1/14	:
E/ESCWA/ED/2000/WG.1/15	Information and communication infrastructure of the ESCWA region
E/ESCWA/ED/2000/WG.1/16	
E/ESCWA/ED/2000/WG.1/17	
E/ESCWA/ED/2000/WG.1/18	European and American experience in e-commerce
E/ESCWA/ED/2000/WG.1/19	