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Expert Meeting on Electronic Commerce Strategies for Development
Geneva, 10–12 July 2002

**REPORT OF THE EXPERT MEETING ON ELECTRONIC COMMERCE
STRATEGIES FOR DEVELOPMENT**

Held at the Palais des Nations, Geneva
from 10 to 12 July 2002

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Chapter I

CHAIRPERSON'S SUMMARY

Introduction

1. The Expert Meeting on Electronic Commerce Strategies for Development: The Basic Elements of an Enabling Environment for E-Commerce was convened from 10 to 12 July 2002, pursuant to the decision taken by the Commission on Enterprise, Business Facilitation and Development at its sixth session in February 2002. The Meeting was to present and discuss the national experiences of both developed and developing countries and identify key elements of participatory, comprehensive national e-commerce strategies, their implementation and the impact on developing countries. The discussions of agenda item 3 were structured according to the following themes:

- (a) The linkages and interactions between e-commerce strategies and other aspects of development strategies and policies;
- (b) Defining national e-commerce strategies: presentation of national experiences;
- (c) Human resources development and training for electronic commerce;
- (d) Legal and regulatory aspects of e-commerce strategies;
- (e) Telecommunications, infrastructure and access;
- (f) Designing e-commerce strategies: the roles of Governments and non-governmental actors; and
- (g) International support for national and regional e-commerce strategies.

E-commerce strategies and development

2. The experts expressed their views on a wide range of issues regarding the development of e-commerce and information and communication technology (ICT), especially as these related to developing countries. In particular, they examined the state of development of e-commerce and ICT, major obstacles faced by developing countries and strategies that could be used to promote e-commerce and ICT in developing countries. Following is a summary of the main points discussed on which there was broad consensus.

The contribution of e-commerce and ICT to development

3. The experts expressed their agreement on the importance of e-commerce and ICT for their countries' socio-economic development. Experiences in many developed and some developing countries show that e-commerce and ICT have had a significant economic impact on enterprises and society as a whole. In those countries e-commerce and e-business have come to play an important role in the production and exchange of goods and services.

4. The contribution of e-commerce and ICT is not limited to the exchange of goods and services. They are also being harnessed in many areas of economic and social life, including manufacturing, procurement, distribution and financial services, and they have led to improved efficiency in these activities and in enterprise management, as well as improvements in workers' skills. They also improve the delivery of public services and access to social services such as education and health.

5. E-commerce has become a driving force for the globalization of the world economy. As a result, many enterprises in developing countries have become integral parts of global networks of production supply chains that increasingly use e-commerce methods. Through these networks, enterprises in developed countries induce developing-country enterprises to adopt new information technologies. Countries that do not engage in e-commerce may put the competitiveness of their enterprises at risk.

6. Many developing countries are only beginning to tap the great potential benefits offered by e-commerce and ICT. As a result, the gap between developed and developing countries' use of e-commerce and ICT remains wide. The underlying causes of this situation have been amply articulated. They include lack of awareness of e-commerce and ICT and their benefits; lack of the requisite telecommunications infrastructure and Internet connectivity; unaffordable Internet access; lack of adequate legal and regulatory frameworks; lack of requisite human capacity; failure to use local language and content; and lack of skills and entrepreneurship. Other constraints include lack of suitable online payment mechanisms, insufficiently large local markets and lack of brand names.

The need for strategies to achieve e-commerce and ICT development

7. While the possible benefits of e-commerce and ICT to society and the development process are obvious, they are not likely to come about without a conscious effort to formulate and implement e-strategies (strategies that could be used to promote e-commerce and ICT in developing countries). The factors that have constrained the development of e-commerce and ICT in developing countries must be addressed through concerted policy actions. In most cases, the solutions require political decisions and prioritization. Indeed, the experience of many developed and developing countries that have succeeded in developing e-commerce and ICT demonstrates the key role played by government policies and strategies established and implemented at different levels of society. Governments should focus on establishing a broad and orderly enabling environment for e-commerce and ICT that benefits society at large. In some cases, e-strategies may require profound policy and structural reforms which only governments can institute, in order to provide a catalyst for broader stakeholder participation.

Tailoring e-strategies to individual countries' requirements

8. Various experts stressed that, while a range of e-strategies could be applied to developing countries in general, no single set of e-strategies could fit the conditions and requirements of all developing countries. In practice, alternative e-strategies existed for the viable development of e-commerce and ICT in different countries. In particular, in order to succeed, an e-strategy had to be tailored to the economic, social and political environment of a particular country, leveraging the emerging body of international good practice and bearing in mind issues such as harmonization and interoperability.

9. E-strategies were to be considered as packages of measures complementing one another. Implementing only a few e-strategies could be insufficient since areas where no action was taken might undermine the effectiveness of those strategies that were put in place. Thus areas such as legal issues, awareness, human resources, infrastructure and access, e-payments, distribution and trade facilitation had to be considered together and developed in parallel.

The need to involve all stakeholders in e-strategies

10. By providing a framework, Governments can play an important role in ensuring that stakeholders are fully involved. Successful experiences have shown that the establishment of an entity at the highest level of government that includes all stakeholders is a key element of an e-strategy. E-commerce and ICT development is a multidimensional issue, and the design and implementation of effective e-strategies require the involvement of all stakeholders, including high-level government representatives, business organizations, civil society and consumers. It was also stressed that governments should lead by example by adopting e-government practices.

11. Notwithstanding the important role of government in initiating and implementing e-strategies, in the final analysis much of the required investment needs to come from the private sector. Experience shows that the private sector has been the most innovative player and the major driving force behind e-commerce and ICT development. In general, the modalities of application of technology to business activities are more efficiently decided by the market than by government. However, an e-strategy that combines public intervention with private-sector initiative in a mutually supportive manner is the only viable one.

The need for a liberalized economic environment

12. The experts thought that the success of e-commerce could be enhanced through reforms, including liberalization of areas such as telecommunications and payment systems. However, the experts felt that such a strategy could affect social cohesion if it was not accompanied by remedial measures taking into account the needs of people and regions that might be negatively affected. Far-reaching liberalization measures of this nature would need to be instituted in the context of broader national economic structural reforms. Further, liberalization should ideally be introduced consistently in all sectors or services. Liberalizing some sectors while leaving others untouched could prevent the full implementation of strategies. The experts also suggested that, where feasible, in order to enhance access and connectivity, liberalization and structural reforms be supplemented with technology solutions that were community-based, used local languages and did not involve computers.

Measuring the effectiveness of e-strategies

13. The experts noted that measuring the success of existing e-strategies was essential in order to properly evaluate their effectiveness and to plan for future strategies. It was noted, however, that measurement methods varied between countries and that thus achievements by different countries were not easily comparable. Some indicators, such as achievement of e-readiness and increased employee productivity due to the application of e-commerce and ICT, could in theory be measured, although in practice this was difficult to do. Experts also

felt that it would be useful to develop a series of internationally comparable indicators to measure the effectiveness of e-commerce activities.

Awareness raising and human resources development

14. In many developing countries, there is little awareness of various aspects of e-commerce and ICT, such as their benefits, legal and regulatory issues, best practices, technological solutions, and so on. This lack of awareness prevails at all levels, including government and enterprise decision makers and consumers. Therefore, awareness raising is crucial for all stakeholders, but especially for small and medium-sized enterprises. Awareness raising can be accomplished in a variety of ways including appropriate curricula in the education system, government- and company-sponsored training and exchanges of information and ideas through workshops and conferences. Public awareness campaigns can also be conducted through the mass media.

15. The experts considered human resources development (HRD) to be a core component of an e-commerce strategy and one of the most challenging bottlenecks for developing countries seeking to engage successfully in e-commerce and ICT. In many developing countries, the literacy rate was low and the level of education was insufficient for full implementation of the changes in work organization that were required for efficient utilization of e-commerce and ICT.

16. The experts recognized that, in order to address shortcomings in literacy and educational levels, Governments, in cooperation with the private sector, needed to invest in education and training and formulate appropriate HRD policies, in order to benefit fully from ICT and e-commerce. Educational systems and curricula should be adapted to fully take into account the requirements of e-commerce and ICT.

17. HRD plans should include a shift from transmitting information and knowledge to learning critical and creative thinking. Also, HRD policies should be designed to give men and women equal access to opportunities in the labour market. Measures should be taken to stem losses of skilled labour resulting from brain drain. For this purpose, schemes could be established to keep track of nationals employed in developed countries and those returning from those countries, as well as to provide them incentives upon their return and also to encourage them to return. Several experts reported success stories in this regard.

18. The experts also noted that the availability of specialized information technology (IT) skills in developing countries could be instrumental in attracting IT companies from developed countries to set up enterprises or subsidiaries in the developing countries.

Legal and regulatory aspects

19. The need for a legal and policy infrastructure supportive of and conducive to e-commerce activities constitutes one of the main issues that policy makers should address when defining an e-commerce strategy. Legislation should aim at providing legal security and predictability and technological and commercial neutrality as well as removing barriers to accessing and using e-commerce and to the free movement of e-commerce. Thus, it is essential to ensure that online transactions are legally valid, binding and enforceable. Although many issues such as applicable law, jurisdiction, and consumer, privacy and data

protection remain unresolved at the international level, a number of model laws and international instruments have been prepared by the international community to accommodate e-commerce. Experts recognized, among others, the importance of the 1996 UNCITRAL Model Law on Electronic Commerce and the 2001 UNCITRAL Model Law on Electronic Signatures with their Guides to Enactment. The flexibility inherent in model legislation was in many cases appropriate for States wishing to make various modifications to the uniform text.

20. National policy priorities need to be reflected in the legal framework in order to maximize certainty and encourage confidence in and use of e-commerce. The legal framework, a key element in the enabling environment, affects market participation. The process and sequencing of reform were emphasized. Furthermore, the experts stressed the importance of holding a broad public dialogue and debate with all stakeholders before preparing e-commerce legislation so as to ensure fairness and an equitable balance between different interests at stake.

21. Experts emphasized that States must consider their own special needs when adopting any new e-commerce legislation. In doing so, the international character of e-commerce and the desirability of regional harmonization and compatibility of regulations should be taken into consideration.

22. Experts identified a number of important legal issues such as alternative/online dispute resolution (ADR/ODR), electronic contracting, consumer protection, privacy and data protection, cybercrime, taxation, customs, jurisdiction, import and distribution, and intellectual property rights including digital rights management (DRM). They stressed the need for developing countries to participate in the current international debate. In addition, recognizing the convergent nature of e-commerce, experts noted the increasing importance of and reliance on general competition law principles to ensure against anti-competitive activity in the e-commerce space.

23. It was stressed that in a number of areas such as taxation, custom duties, data privacy and security, harmonization would be difficult to achieve because of countries' differing socio-economic conditions. It was nevertheless important to achieve a certain degree of interoperability so as to avoid barriers to the development of e-commerce. Another area of concern noted by experts was the extraterritorial application of some national laws governing e-commerce that could conflict with other national legislation. It was emphasized that the disappearance of territorial borders raised questions about the applicability of traditional principles of jurisdiction and applicable law in an electronic environment.

24. Although it is well known that commerce and technology often advance ahead of the law and that historically the law has adapted to serve commercial and financial demands and to facilitate trade, it is equally true that technology needs to take into account relevant legal requirements. This is very much the case with e-commerce, since the laws of many countries include strict requirements concerning issues such as negotiability and documents of title. Furthermore, efficient regulation of e-commerce issues such as spam and digital rights management requires that legislative solutions be accompanied by technical solutions.

25. Media neutrality was stressed by experts as an important principle to be considered by Governments when enacting legislation.

26. Experts recognized the importance of electronic signatures in the context of e-commerce as a vital tool to ensure authentication of electronic communications. It was important that countries wishing to use various electronic signature techniques enact appropriate legislation to ensure that e-signatures could be used with legal effect. Although a large number of countries had enacted legislation recognizing the validity of e-signatures, progress was still lacking in the cross-border recognition of foreign certificates and e-signatures.

27. The need for technical assistance to developing countries wishing to adapt their national law to accommodate e-commerce was viewed by many experts as a priority. Requests were addressed to the international community to strengthen its activities in these areas. Furthermore, enhanced training and education were considered an essential element in the development of e-commerce.

Telecommunications, infrastructure and access

28. The experts considered the issue of telecommunications, infrastructure and access (TIA) from several angles. The issue was discussed in light of the technological and societal differences among developing countries, but also within the context of the rural-urban divide in particular countries. It was felt that the goal of universal service should extend beyond simple telephony and embrace Internet and e-commerce technologies. When discussing models and policies through which TIA could be supported in rural areas, experts agreed that access and infrastructure together with local content in local languages and relevant to local communities constituted a worthy goal.

29. It was noted that developing countries, and in particular their rural communities, could not wait for state-of-the-art technologies to materialize before embracing Internet use and e-commerce practices. Policies and practices could be developed and implemented in real-world conditions in connection with existing entrepreneurial activities. Community projects, even those that were low-tech by nature (e.g. community- or PTT-sponsored e-mail), should be encouraged in order to improve social cohesion.

30. A discussion of "open-source" software provided ideas concerning several possible policy applications for developing countries. Open-source software could be important for developing countries because it was inexpensive, allowed for the development of local-language applications and could be used in TIA community development. While not necessarily free of charge, open-source software is frequently available at prices significantly lower than those charged for commercial products. However, it requires investment in training and in awareness building about its features and shortcomings. It was also noted that, within the context of the global market for computer software, open-source software gave consumers more choice and countered monopolistic practices. Many governments and their agencies in developed and developing countries have adopted open-source operating systems and applications.

31. The use of software, whether open-source or commercial, is contingent on access to affordable hardware. A number of policy models were discussed, including subsidizing household ownership of personal computers (PCs) and establishing and subsidizing community access centres. Questions were raised about how to encourage users to embrace technology for business and development purposes (health, education, etc.). It was observed

that intensifying commercial ICT use by enabling TIA needed to be complemented by government policies aimed at getting the financial sector online. Another issue raised was the need to critically assess the areas where the private sector performed best and where the public sector could not contribute significantly.

32. E-strategies relating to telecommunications, infrastructure and access need to be developed and implemented taking into account all segments of society so as to minimize digital exclusion. For rural areas where private investment in telecommunications development would not be profitable, Government funding or other forms of subsidies need to be considered keeping in mind long-term development goals.

33. Experts discussed several strategies for intensifying business-oriented use at community-based access points such as schools, cybercafés, telecentres and other public facilities. Experts felt that community-based projects needed local entrepreneurship. Community services could also easily be implemented using open-source software.

International support for e-strategies

34. The international community could play a supportive role in efforts to develop and implement national e-commerce strategies. Recently undertaken global initiatives such as the Digital Opportunity Task Force (DOT Force) of the G8 or the United Nations ICT Task force included the topic of national e-strategies in their plans of action, viewing reduction of the digital divide as a key element of global efforts to reduce poverty. The importance of linking these efforts with those of other international organizations in the area of ICT and development was stressed.

35. Experts welcomed the fact that all major donor agencies had embarked on a process of reviewing their policies with the objective of mainstreaming ICT in their development programmes. To the extent possible, such support should be coordinated to minimize duplication.

36. When providing development assistance to developing countries, donor agencies should include an e-commerce and ICT development component in their assistance. When available, the national e-strategies of developing countries should be used to identify priority areas for international support.

37. Experts agreed that e-strategies were the cornerstones of a global “ICT for development strategy or approach”. The emphasis in international initiatives needed to shift from a narrow focus on infrastructure and access to a holistic approach integrating human resource development, enterprise-level capacity-building and community involvement. It was important to utilize ICT within a development framework that would maximize its socio-economic benefits, including the positive effects of the new technologies on public health, poverty reduction, the redress of gender imbalances and democratic governance.

38. It was also highlighted that regional networks were important, both to enable countries sharing similar challenges and socio-economic backgrounds to exchange experiences, and to ease the tension between technological dynamism and the need for interoperability, which tended to push countries towards standards setting. A possible solution could be found in evolutionary standards defined at the regional level.

39. Experts also felt that there were some constraints that ICT could not address, so that action taken at the international level to harness the development potential of the new technologies had to be complemented by action on other fronts, including, for example, maximizing market access for developing countries' exports.

40. When designing their e-commerce strategies, developing countries should contemplate ways of enhancing their participation in international fora where e-commerce and ICT policy and regulatory issues are discussed, including WTO, ITU, WIPO, UNCITRAL and ICANN.

Chapter II

ORGANIZATIONAL MATTERS

A. Convening of the Expert Meeting

41. The Expert Meeting on Electronic Commerce Strategies for Development: The Basic Elements of an Enabling Environment for E-Commerce was held at the Palais des Nations, Geneva, from 10 to 12 July 2002.

B. Election of officers

42. At its opening meeting, the Expert Meeting elected the following officers to serve on its bureau:

Chairperson: H. E. Mr. Mohamad Hamid Mohamad Jaafar (Brunei Darussalam)
Vice-Chairperson-cum-Rapporteur: Ms. Mariel Picado (Costa Rica)

C. Adoption of the agenda

(Agenda item 2)

43. At the same meeting, the Expert Meeting adopted the provisional agenda circulated in document TD/B/COM.3/EM.15/1. The agenda for the Meeting was thus as follows:

1. Election of officers
2. Adoption of the agenda
3. Electronic commerce strategies for development: the basic elements of an enabling environment for e-commerce
4. Adoption of the report of the Meeting

D. Documentation

44. For its consideration of the substantive agenda item, the Expert Meeting had before it a note by the UNCTAD secretariat entitled "Electronic Commerce Strategies for Development: The Basic Elements of an Enabling Environment for E-Commerce" (TD/B/COM.3/EM.15/2).

E. Adoption of the report of the Meeting

(Agenda item 4)

45. At its closing meeting, the Expert Meeting authorized the Rapporteur to prepare the final report of the Meeting under the authority of the Chairperson.

Annex

ATTENDANCE*

1. Experts from the following States members of UNCTAD attended the Meeting:

Antigua and Barbuda	Kyrgyzstan
Azerbaijan	Latvia
Bahrain	Lebanon
Barbados	Madagascar
Belarus	Malaysia
Benin	Morocco
Botswana	Mauritius
Brazil	Mongolia
Brunei Darussalam	Nepal
Burkina Faso	Netherlands
Cameroon	Nigeria
Canada	Oman
China	Pakistan
Costa Rica	Philippines
Cuba	Poland
Czech Republic	Qatar
Democratic People's Republic of Korea	Republic of Korea
Djibouti	Russian Federation
Egypt	South Africa
Estonia	Sudan
France	Switzerland
Gambia	Thailand
Germany	Togo
Greece	Uganda
Guinea	United Republic of Tanzania
India	Uruguay
Iran (Islamic Republic of)	Yemen
Jamaica	Zambia
Jordan	Zimbabwe
Kenya	

2. The following intergovernmental organizations were represented at the Meeting:

* For the list of participants, see TD/B/COM.3/EM.15/INF.1.

African, Caribbean and Pacific Group of States
Arab Labour Organization
European Community
Organization of the Islamic Conference
South Centre

3. The following specialized agencies were represented at the Meeting:

International Labour Organization
World Bank
Universal Postal Union
International Telecommunication Union
World Meteorological Organization
World Intellectual Property Organization
United Nations Industrial Development Organization

4. The United Nations Commission on International Trade Law, the Economic Commission for Europe and the United Nations Development Programme were represented at the Meeting.

5. The following non-governmental organizations were represented at the Meeting:

General Category

International Chamber of Commerce
International Confederation of Free Trade Unions
International Organization for Standardization
World Association of Former United Nations Interns and Fellows

6. The following panellists attended the Meeting:

Mr. Samir Baradhi, Assistant General Manager, Byblos Insurance Co., Lebanon
Mr. Eric Caprioli, Professor and Lawyer, EDHEC, Nice, France
Mr. Garegin Chugaszyan, Executive Director, Information Technology Foundation,
Yerevan, Armenia
Ms. Catherine Mann, Senior Fellow, Institute for International Economics,
Washington, D.C., United States
Ms. Swasti Mitter, Visiting Professor, University of Sussex, United Kingdom
Mr. Ezzeddine Nciri, Advisor, Public Services, Office of the Prime Minister, Tunisia
Ms. Swayandipta Pal Chauduri, Coordinator, Pearl Mongers, India
Ms. Vanda Scartezini, Secretary for Information Technology Policy, Ministry of
Science and Technology, Brazil
Mr. Linnar Viik, Adviser to the Prime Minister, Estonia