

**E-COMMERCE LEGAL FRAMEWORK**  
**— PAKISTAN'S EXPERIENCE**

1. E-commerce, short for electronic commerce, is conducting business on-line, including buying and selling products with credit card or digital cash, by transfer of data between different companies using networks, such as the Internet. More precisely e-commerce is the collection of tools and practices involving Internet technologies that allow a company to create, maintain and optimize business relations with consumers and other businesses.
2. E-commerce penetrates into every corner of the modern business - with good reason. It promises reduced costs, higher margins, more efficient operations and higher profits. It is useful to both producers and consumers in developing countries as it helps them overcome the traditional barriers of distance from markets and lack of information about market opportunities. Producers and traders no longer need to maintain physical establishments requiring large capital outlays. Virtual shops and contact points on the Internet may enable storage close to the production site and distribution can be made directly to the consumer. Increased advertising possibilities worldwide may help small and medium industries and businesses in developing countries that traditionally find it difficult to reach the customer abroad. It may also enable such firms to eliminate middlemen while trying to sell their products abroad.
3. Trade and business communications through electronic means give rise to a number of legal issues. For instance if a service was sold over the Internet across countries in which geographical location can the transaction be deemed to have occurred? This question may be important from the point of view of consumer protection and establishing the jurisdiction. Furthermore electronic transactions require electronic contracts and electronic signatures, which have not been provided for in the contract laws of many countries. Most countries that wished to participate in electronic commerce needed to undertake major legislative reforms in this regard.
4. United Nations Commission on International Trade Law (UNCITRAL) is a core legal body of United Nations with universal membership, specializing in commercial law reform. In order to increase trade worldwide, UNCITRAL is formulating modern, fair, harmonized rules on commercial transactions, including:
  - Conventions, model laws and rules which are acceptable worldwide
  - Legal and legislative guides and recommendations of great practical value
  - Updated information on case law and enactments of uniform commercial law

- ❑ Technical assistance in law reform projects
- ❑ Regional and national seminars on uniform commercial law

5. In the area of ecommerce the major results of work done at UNCITRAL are:

- ❑ Recommendation on the Legal Value of Computer Records (1985)
- ❑ UNCITRAL Model Law on Electronic Commerce (1996)
- ❑ UNCITRAL Model Law on Electronic Signatures (2001)

6. A report was prepared by the UNCITRAL experts on "Legal value of computer records" (A/CN.9/265) and based on that report the Commission adopted following recommendation to states to review legal requirements:

- ❑ affecting the use of computer records as evidence in litigation;
- ❑ that certain trade transactions or trade related documents be in writing;
- ❑ of a handwritten signature or other paper-based method of authentication on trade related documents; and
- ❑ that documents for submission to governments be in writing and manually signed.

The recommendation was endorsed by the General Assembly (Resolution 40/71).

7. The Model Law on Electronic Commerce, adopted in 1996 by UNCITRAL, is intended to facilitate the use of modern means of communications and storage of information. It is based on the establishment of a functional equivalent for paper-based concepts such as "writing", "signature" and "original". Model Law also contains rules for electronic commerce in specific areas, such as carriage of goods. With a view to assisting executive branches of Governments, legislative bodies and courts in enacting and interpreting the Model Law, the Commission has also produced a Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce. Aim of Model Law is to provide national legislatures with a template of internationally acceptable rules to remove legal obstacles and create a more secure legal environment for e-commerce. It is intended to facilitate the use of electronic communications by encouraging the international harmonisation of domestic legal environment. Over the years the Model Law has gained increasing international acceptance.

8. The objectives of the Model Law are to facilitate rather than regulate electronic commerce, to adapt existing legal requirements and to provide basic legal validity and raise legal certainty. The basic principles of the Model Law are functional equivalence (writing, signature, original), media and technology neutrality and Party autonomy (parties choice, choosing level of security).

9. The UNCITRAL Model Law on Electronic Signatures, adopted in 2001, is intended to bring additional legal certainty regarding use of electronic signatures. It is built on the flexible principle contained in Article 7 of Model Law on Electronic Commerce. It establishes a presumption that, where they meet certain criteria of technical reliability, electronic signatures shall be treated as equivalent to hand-written signatures. This Model Law also follows a technology-neutral approach and avoids favoring the use of any-specific technical product.
10. The purpose of this Model Law is to encourage international harmonisation of laws concerning electronic signatures and certification authorities. It provides conduct rules for various parties dealing with electronic signatures and basic standards for the recognition of electronic signatures from other jurisdictions.
11. Despite the effort of UNCITRAL for harmonization of the laws, past few years have seen explosion of legislative and regulatory work by governments in the field of electronic authentication. The changes in law and advances in technology have dramatically altered landscape of electronic authentication.
12. Legislatures and regulatory agencies around the world have taken various and divergent approaches in their effort to take advantage of these emerging technologies. A review of legislative and regulatory activity reveals three basic approaches;
  - Minimalist approach,
  - Prescriptive approach,
  - “Two-tier” approach.
  - a. Minimalist Approach: Minimalist approach aims to facilitate use of electronic signatures generally, rather than advocate a specific protocol or technology. Traditional common law countries - *e.g.*, Canada, US, UK, Australia, and New Zealand, have tended toward minimalist approach.
  - b. Prescriptive Approach: Legislation and regulations enacted under prescriptive approach adopts asymmetric cryptography as the approved means of creating a digital signature; imposes certain operational and financial requirements on certificate authorities (“CAs”); prescribe duties of key holders; and define circumstances under which reliance on an electronic signature is justified. Civil law countries have tended to opt for prescriptive approach *i.e.*, Germany, Italy and Argentina.
  - c. “Two-tier” Approach: Some jurisdictions begun to realize that first two approaches are not necessarily mutually exclusive, and so have adopted “two-tier” approach representing convergence and synthesis of the first two approaches. This consolidated approach generally takes the form of enacting laws that prescribe standards for operation of PKIs, and concomitantly take a broad view of what constitutes a valid electronic

signature for legal purposes. This "two-tier" approach has found increasing support, most notably in the European Union and Singapore.

13. International Consensus Principles prepared by Internet Law and Policy Forum (ILPF) in Sept' 2000 to create a predictable legal environment are as below:
  - ❑ Remove legal barriers to electronic authentication;
  - ❑ Respect freedom of contract and parties' ability to set provisions by agreement;
  - ❑ Harmonization: making laws governing electronic authentication consistent across jurisdictions;
  - ❑ Avoid discrimination and erection of non-tariff barriers;
  - ❑ Allow for use of current or future means of electronic authentication; and
  - ❑ Promote market-driven standards
14. Government of Pakistan adopted its IT Policy in the year 2000 and after studying UNCITRAL model laws, looking at various legislations of both Civil and Common law countries, reviewing different implementation schemes of electronic authentication, regulatory models and best practice guidelines and appreciating the above-mentioned three approaches being followed all over the world, has followed the "International Consensus Principals on Electronic Authentication" designed by Internet Law and Policy Forum and "two-tier" approach.
15. The main objective for enacting such law was to move Pakistan from time old paper-based transactions to electronic transactions to improve its governance, economy and service to citizens in the modern era. At present, barring certain exceptions all filings/transactions (e.g., tax returns, payments, cheques, banking instructions, custom documents, employment applications, court documents, fee payments, academic transcripts, complaints etc. etc.) are authenticated by signatures on papers, which can then be used as evidence as needed. Electronic transactions, in replacement or in parallel within this system in vogue, required the backing of law so that the electronic records and digital signatures are acceptable in the eye of law.
16. The benefits of this legislation would be manifold. It will promote confidence in the use of information technology in private and public affairs. Digital Signatures and operation of PKIs would drastically reduce transaction costs in virtually every sector of business.
17. In order to formulate various laws relating to computers including Electronic Transactions Ordinance for Pakistan an IT Law Forum was constituted. This comprises of leading lawyers of the country working in various fields of law on computers. It held various meetings to draft and finalise the Electronic Transactions Ordinance. Before promulgation of the law the government consulted financial sectors and legal community.

Finally after the process of deliberations the Electronic Transactions Ordinance 2002, (ETO) was promulgated on September 09, 2002.

18. In brief the ETO envisages:
- a. creation of an Accreditation Council comprising of five members appointed by the federal government for a period of three years, renewable by another term. The main functions of the council will be to:
    - ❑ grant and renew accreditation
    - ❑ monitor and ensure compliance
    - ❑ establish and manage repository
    - ❑ carry out research and studies in cryptography services
    - ❑ recognize or accredit foreign certification service providers
    - ❑ encourage uniformity of standards and practices and
    - ❑ make recommendations
  - b. enabling acceptance of electronic documents/transactions through a certification service provider accredited by the Accredited Council or otherwise, to the court of law;
  - c. giving legal recognition and certain level of presumption to the electronic documents, records, transactions, communication and electronic signatures;
  - d. excusing government and other bodies from accepting electronic filing or effect any monetary transaction in electronic form unless they are ready for it;
  - e. exempting electronic documents, records, communications and transaction from stamp duty for a period of two years so that the provincial governments may be ready to collect stamp duty electronically; and
  - f. making provision of false information, issuance of false certificates, violation of privacy of information and damage to information system crime punishable with imprisonment and fine.
19. ETO also provides for appropriate punishments for issuance of false certificates and violations of privacy. The Federal Government may by notifications in the official gazette, make rules to carry out the purposes of this Ordinance, whereas the Accreditation Council may with the prior approval of the Federal Government, make regulations to carry out the purposes of this Ordinance.
20. In the parallel the Government of Pakistan was working on the provision of high capacity, reliable and accessible communications and human resource development, which effort has been internationally recognized

and appreciated. Immediately after the passing of the law Pakistan formally launched its portal. Meantime the State Bank of Pakistan, regulator of the financial sector, also allowed opening of the internet merchant accounts and mandatory connectivity to the existing two ATM switches by all the banks.

21. In order to assess the special needs of the banking sector couple of meetings and seminars were held and it was found out that passing of just ETO is not enough to fully go for ecommerce unless the special needs of the Banking sector.
22. The legal issues relating to banks are identified in the areas of:
  - Inter-bank payment systems
  - Consumer Electronic Banking
  - Internet Banking
  - Digital Cash
  - Dematerialization
  - Confidentiality and Data Protection
  - Evidence and security
23. There is also a need to have a deeper look into the relations between financial institutions, traders and service establishments and consumer. Regarding transactions by electronic payment instruments, the relationship between card-holder and card issuer also needs to be well defined.
24. To make Internet Banking to happen the legal principles for regulating financial services on the Internet needs to be framed and legal and technological infrastructures for electronic payment system has to be in place. The subject of Digital Cash also sooner or later has to be recognized and regulated.
25. The legal and practical impact of the dematerialization of shipping documents, electronic bills of lading and its transmission and electronic banking documents also has to be assessed. Subject of evidence and security is of vital importance to the banking institutions especially in relation to document imaging and liability for computer errors in online banking. Confidentiality and Data Protection issues are equally important.
26. No ecommerce initiative can hold ground or survive unless there is a proper legal system to address the computer related crimes. In case of computer crime or cyber crime, it is more important than ever to legislate so as to prevent unauthorized access to data or information.
27. In order to be fully ready for ecommerce we need to do a bit more than just follow the UNCITRAL Model Law. According to our experience further required legal framework should contain:
  - Electronic Banking

- ❑ Data Protection
- ❑ Computer related Crimes
- ❑ Database Protection
- ❑ Employment issues in Information Society
- ❑ Liability
- ❑ Outsourcing
- ❑ Protection of Confidential Information

28. We would welcome the cooperation of the concerned agencies and governments in this regard and are willing to share our experience.

Muhammad Aslam Hayat  
Director (Legal)  
IT & Telecom Division,  
Ministry of Science and Technology,  
Government of Pakistan.  
[haslam@brain.net.pk](mailto:haslam@brain.net.pk)