

eSouthAsia: Opportunities and Challenges

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Abstract

The seven members of the South Asian Association for Regional Co-operation (SAARC) – Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka – are highly underrepresented in the use of the Internet. Representing 22.4 % of the world population, SAARC members accounted for only 0.039 % of the total number of Internet hosts as of July 1999. In this paper, the authors examine the current state of Internet diffusion in South Asia and analyse the factors encouraging and hampering the growth of electronic commerce in this region.

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The seven members of the South Asian Association for Regional Co-operation (SAARC) – Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka – are highly underrepresented in the use of the Internet. Representing 22.4 % of the world population, SAARC members accounted for only 0.039 % of the total number of Internet hosts as of July 1999.

Among the seven countries in South Asia, India is ahead of others in terms of the development of electronic commerce. According to a study by Boston Consulting Group, Internet sales in India amounted to IRs. 93 million (\$2.2 million) in 1999. This is about one sixth of the total Internet sales in China (\$13 million) in the same year (see Ebusinessforum.com 2001). In the other six countries, electronic commerce is virtually non-existent. Music, greeting cards and gifts, books and magazines, and food and beverages are the major categories transacted on the Internet in India (Ebusinessforum.com 2001) whereas the leading categories in the United States are travel, computer hardware/software, auctions, books/music/video and apparel (BCG 1999).

Why is the diffusion of the Internet and electronic commerce so slow in South Asia? Economic backwardness, of course, is the major reason for the low level of Internet connectivity in this region. Social, political and cultural barriers, however, are no less important.

In this paper, we examine the current state of Internet diffusion in South Asia and analyse the factors encouraging and hampering the growth of electronic commerce in this region.

Why Internet and electronic commerce?

For developing countries like those in South Asia, the Internet – in the words of the World Trade Organisation (WTO) – provides “fresh opportunities to participate in global markets” as well as “new dangers of marginalisation”. To reach customers world-wide in a cost effective way, there is no better medium than the Internet. Moreover, e-retailers can increase their efficiency through reduced inventories and smaller places of business.

Internet can allow developing countries to leapfrog ahead of their global competitors by skipping several stages of technological development through which the industrialised nations had to pass. If the enterprises in South Asian countries are unable to employ leapfrogging strategies with regard to Internet, the Information Revolution may prove to be a serious threat rather than an opportunity for them.

Over five years ago, Schware and Kimberley (1995) found that some organisations from developed countries would accept new suppliers only if they can demonstrate an electronic data interchange (EDI) capability. They pointed out that there are cases of “companies, particularly traditional, small, older firms, who have gone out of business because of inability, or unwillingness to comply or disbelief in the need to comply” (p.17). They further argued that “there is no longer any choice about compliance; the market has made the decision for everyone. The remaining choices involve timing, to a diminishing extent, and the level of participation” (p.17). Similarly, American multinational firms such as Wal-Mart and JC Penney require their foreign suppliers to deal with them on the Internet. In fact, this is one of the factors that forced many of the Asian trade partners of these multinationals to involve in e-commerce sooner rather than later (Woodall 2000).

Apart from the economic benefits, the Internet can also provide a number of social and political benefits. For example, the Internet is often described as “the greatest democratizer the world has ever seen” (Piltroda 1993) and as such it encourages the participation of the citizens in the democracy (Hargittai 1999). Similarly, proper utilisation of the medium could mitigate social inequality by making low-cost information available to everyone (Anderson et al 1995).

Prerequisites to electronic commerce

The factors affecting the adoption of the Internet for commercial transactions can be described in terms of three key words: access, know-how and trust (UNCTAD 2000).

Access

Availability and price structure of information and communications technology (ICT) equipment and services have a strong influence on the adoption rate of the Internet. The telephone density in South Asia is one of the lowest in the world (Table 1). Lack of competition in telecommunications services and high tariff barriers to ICT equipment have compounded the access problem in South Asia.

Know-how

Proper knowledge and experience is essential for the success of Internet as a medium of transaction. Computer literacy and English language skills are prerequisites to Internet use. In addition skills in designing and updating Web sites, knowledge about the working of various computer technologies, etc. are required when the level of involvement in Internet transactions increases. SAARC nations have a mixed record here. While the knowledge of English is a plus, low levels of basic literacy (with the exception of Sri Lanka) are a minus. Without basic literacy, both computer literacy and English literacy are constrained.

Trust

Internet transactions are more impersonal and anonymous in comparison to conventional transactions. Since online transactions are not documented in writing, they are likely to raise evidentiary issues in case of disputes between the parties involved in transaction.

At the same time, Internet offers technical means for opportunistic behaviour. Fraud and abuse of consumers and corporations are problems on the Internet. For these reasons, electronic commerce is characterised by a “healthy sense of caution, if not outright distrust” (ITU, 1999). A study of world-wide Internet users by Georgia Tech GVU Centre in 1998 found that 39.1 % of the respondents were concerned about the security of transactions conducted on the Internet (Bellman et al. 1999).

Social and legal institutions play an important role in the production of trust. Luhmann (1979) argues that law is one of the most effective remedies against the risk present in a relationship. Existing laws for Internet commerce are still in their infancy in the world and much more so in South Asia. In South Asia, India is the only country to have formal legislation to recognise digital and electronic signatures.

Table 1: Some Indicators Related to Internet access in South Asia

Country	Population, mil., 1999	GNP per capita, \$, 1999	Literacy rate %, 1999	No. of Scientists and engineers in R&D per mil. 1987-97	No. of Telephone Sets, thousand, (per 100) 1999	Telephone line waiting list in thousand (average waiting time, yrs), 1998	No. of mobile sets, thousand, (per 100 people), 1999	No. of PCs thousand, (per 100 people), 1999	No. of Internet hosts (per 1000 people), 1999	No. of Internet users (per 100 people)
Bangladesh	127	281	40	52	433 (0.34)	144.9 (4.8)	75 (0.06)	130 (0.10)	1 (0.0)	30000 (0.10) (July 2000)
Bhutan	0.65	624	42	NA	12 (1.80)	NA	-	3 (0.46)	542 (8.25)	500 (0.02) (July 2000)
India	998	435	55	149	26511 (2.66)	2705.7 (1.0)	1195.4 (0.12)	3300 (0.33)	23445 (0.23)	4.5 million (0.45) (March 2000)
Maldives	0.28	680	96	NA	22 (7.97)	NA	1.6 (0.58)	5 (1.8)	228 (8.19)	2000 (0.06) (July 2000)
Nepal	22.3	222	39	NA	247 (1.11)	215.3 (5.8)	-	60 (0.26)	290 (0.12)	35000 (0.14) (July 2000)
Pakistan	135	458	44	72	2980 (2.22)	298.0 (1.4)	202 (0.15)	580 (0.43)	4735 (0.35)	1.2 million (0.85) (May 2000)
Sri Lanka	18.6	846	91	191	679	283.8	174.2	105	1209	65000 (0.34)

					(3.64)	(6.3)	(0.90)	(0.46)	(0.65)	(July 2000)
USA	280	30,600	99	3676	18699600 (67)	0 (0)	86047 (31.1)	141000 (500)	53175 (193)	143.96 million (52.24) (July 2000)

Source: <http://WWW.SAARC.ORG>, ITU (2000b, c), Nua Internet Surveys (2000), UNDP (2000), The World Bank (2001), International Marketing Data and Statistics (2001)

Current Situation of South Asia

Access

Table 1 presents various indicators related to Internet access in the seven countries in south Asia. Corresponding indicators for the US, the global leader in the development of electronic commerce, are also presented.

Table 2 presents the price structures of telephone and Internet services in the seven countries of south Asia. For purpose of comparison, corresponding figures for the US are also included. The different components of the costs to access the Internet in the SAARC countries are even higher than the US. Given that per capita income of South Asia is less than one-fiftieth of the US, Internet access in South Asian countries is beyond the reach of a majority of the population.

Moreover, even if people are willing to pay for telecommunications services, the supply is much less than the demand (Table 1). Telephone systems in these countries are very poor with very few telephones in use in some of the countries¹. Some of the countries such as Bhutan have excessive controls. Uncertain policies in areas like industrial licensing, trade, labour, and finance hamper foreign investment in telecommunications. Not only the access to Internet but also access to financial services is essential for electronic commerce to flourish. Low penetration rate of credit cards is another obstacle for the low level of electronic commerce in these countries. For example, less than 0.4 % of the 1 billion population in India possesses credit cards, with an average spending less than \$40 (Ebusinessforum.com 2000d). Credit cards are virtually non-existent in other nations in South Asia.

Know-how

Illiteracy and illness are more serious problems in South Asia than telephone and Internet access. Given the fact that more than 50 % of the adult population cannot read and write in four of the seven countries, English language and computer skills remain a distant hope for a majority of people in this region. The numbers of scientists and engineers in research and development are also very low. While the British legacy and U.S. connections offer some hope in these areas, massive efforts are needed to convert hope into reality.

Trust

Among the South Asian Countries, so far, only India has laws to recognise electronic and digital signatures. In rest of the countries of the region, the value of e-commerce is extremely low and the governments have not yet decided about the strategies to deal with the Internet (see for instance, Ebusinessforum.com 2000a, b, c). Without formal legislation to recognise electronic and digital signatures, electronic transactions are not likely to grow. There is no legislation specifically outlining consumer rights in e-commerce transactions in these countries.

Some encouraging signs

Four of the members of the SAARC have signed the WTO agreement to liberalise telecommunications sectors under the General Agreement on Trade in Services (GATS). India, Bangladesh and Sri Lanka committed to open their fixed local telephone services to competition immediately (Bhatnagar 1999). Sri Lanka has created an independent regulatory body to supervise the transition from monopoly to competitive environment and already attracted a substantial amount of foreign direct investment (FDI) in this sector. As of 1999, India and Bangladesh had not made satisfactory progress. Pakistan has also created

¹ <http://www.saarc.org/>

a regulatory body with independent financial power. With the opening of the markets for competition, prices of telecommunications services are likely to fall.

Table 2: Lowest Priced Internet Access Plans in South Asia

Country	Hours included	ISP connection (\$)	Monthly ISP charge (\$)	Telephone usage charge (\$)
Bangladesh	15	59	31	9.97
Bhutan	15	34	34	6.88
India	25	2	10	5.50
Maldives	Unlimited	43	21	19.29
Nepal	20	51	7	4.36
Pakistan	15	-	10	8.09
Sri Lanka	11	41	13	4.52
USA*	20	-	16.45	14.29

Source: ITU (2000a), OECD (2000)

*Basket for 20 hours at off-peak time.

In India, a large number of firms are utilising the facilities provided by the United Nations Conference on Trade and Development (UNCTAD) “trade points” in New Delhi and Bangalore. In a trade point, participants in foreign trade transactions (e.g. customs, foreign trade institutes, banks, chambers of commerce, freight forwarders, transport and insurance companies) are grouped together under a single physical or virtual roof to provide all required services at a reasonable cost (<http://www.unctad.org>). The UNCTAD Global Trade Point Network (GTPN) is the largest trading platform on the Internet. Similarly, in Bangladesh, Maldives, Pakistan and Sri Lanka, initiatives are being taken for the establishment of UNCTAD trade points².

Many SAARC governments have also taken several other measures for the development of electronic commerce. In Pakistan, there are no corporate income taxes for IT companies for the first ten years and also incentives such as duty-free import of hardware and export refinancing are available (Ebusinessforum.com 2000c). Similarly, the government of Andhra Pradesh in India has developed a 64 Hectare hi-tec city, which already attracted IT companies such as Microsoft, Oracle and Metamor (Sekhar 2000).

Challenges for South Asia

Economic backwardness is a serious obstacle for the growth of electronic commerce in South Asia. Even after economic growth, however, serious social, cultural and political challenges to the diffusion of the Internet will persist in this region.

Internet has become a serious threat to the ruling institutions of authoritarian regimes the world over. About 45 nations in the world are restricting Internet access “on the pretext of protecting the public from subversive ideas or violation of national security” (Sussman 2000, p.1). Since some of the SAARC members have authoritarian political structures, they are less likely to allow the free flow of the information on the Internet.

Cultural values are also likely to act as obstacles in the development of the Internet. In Western countries, attempts to regulate the Internet and bans on pornography are regarded as an infringement of individual rights (Glass 2000). Governments in developing countries, however, are likely to control pornography and harmful contents. India’s IT Bill, for instance, has a special section on offences dealing with the publication or transmission of “obscene material” (Achar 2000).

A conference organised by American Psychological Association concluded that the main use of the Internet has been to enhance sexual pleasure rather than for commerce or intellectual pursuits (Wheeler, 1998). Control on pornographic sites is likely to reduce the perceived entertainment value of Internet use and potential consumers are less likely to adopt it.

² : <http://www.gtpnet-e.com/unctad/unctad.nsf/mainunctad!OpenFrameSet>

Religious values can also conflict with the development of electronic commerce. For instance, in Pakistan, the government is keen to ensure that “Islamic morals” remain untouched. After the military coup, the government is especially interested in ensuring that the Internet does not become a means of spreading sedition (Ebusinessforum.com 2000a).

Tech-ignorant bureaucrats are likely to be another obstacle for the development of electronic commerce in this region. They are likely to perceive the Internet as a potential threat to their control and power.

Conclusions

The current state of development of electronic commerce is very low in South Asia. E-Friendly policies will help boost the growth to some extent. Costs are the major obstacle for the faster adoption of the Internet in this region. Opening market for competition will help increase the supply as well as reduce the price of telecommunications services. Studies have found that tele-density growth rates are likely to be higher in countries with markets open for competition than in those with government monopolies over the telecom sector (Petrazzini 1996).

Since individual small and medium sized enterprises (SMEs) in this region are often unable to handle the fixed and operating costs of a personal computer and Internet connection, bundling of services could help increase their involvement in electronic commerce. A trade point provides such a bundle of services. Governments should take initiatives to open more trade points and encourage more companies, especially small and medium sized enterprises (SMEs) to utilise the services of the existing trade points. An even quicker method may be to license private service providers – similar to the long-distance phone service stalls throughout South Asia – that can provide a bundle of Internet connectivity and payment services to local businesses and households. Some evidence of such innovative e-entrepreneurship in South Asia already exists, and in this may lie the hope of the region’s e-Future.

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