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EVALUATING TRADE COMPETITIVENESS: CASE OF TELECOM INDUSTRY IN INDIA

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ABSTRACT

With unprecendented growth rates, ICT has attracted best of attention in India. Sustaining the success demands understanding of real competitiveness, next stages and building competencies for rapid scale-up in face of intensifying focus on global giants on Indian markets. Trade competitiveness is an important factor of international competitiveness, widely used by progressive countries. Attempt has been made in this exploratory paper to get a feel for patterns of trade competitiveness to identify leading countries in telecom. Efforts are also made to quickly evaluate competitiveness of large telecom players in India. Finally, future areas of research are identified and some key implications are drawn for leadership in industry and government.

Keywords: Trade Competitiveness, Telecom industry,

Introduction

Competitiveness is crucial if masses in India are to be taken from low literacy, poor quality of life and low pace of economic development, to dream of India as a developed country. Glimpse trends in competitiveness ranks of India and select countries is given in Table 1. It becomes apparent that, even after a decade and a half of liberalization, India has a long way to go in attaining place in top 10 ranks. It has the potential to reach there with many favourable factors such as one of the largest pool of young skilled human resources. At the same time real challenges of quality skills and values are equally huge. No large country can ever climb to higher stages of development without the citizens being functionally literate with right attitudes, relevant skills and desire to contribute to community, country and the world at large. ICT can be of help in addressing many persistence problems in India and can create numerous opportunities, if enlightened leaders of the profession, firms, organizations and institutions become aware about real dimensions of competitiveness and leverage their skills and capabilities collectively (Momaya, 2005).

Information and communications technologies (ICT) are becoming drivers and enablers of growth in emerging interconnected knowledge-based international economy. By pushing up productivity growth the ICT Revolution—the new digital communication technologies that expanded the capability of the computer beyond simple computation—was expected to become the long-run engine of the global economy (Masuyama and Vandenbrink, 2003). The ICT Revolution is facilitating a move to knowledge-related activities as the main source of

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competitiveness and added value. The ICT Revolution brings growth in productivity and a rise in services, also spawns the knowledge-based economy (KBE). With rise of international production networks, where the KBE may have the huge impact, there is likelihood of major reorganization of industry and corporate structures and resulting impact on competitiveness.

Table 1 Trends in Competitiveness Ranks of Select Countries

Country	NCR		WCY	
	2003-04	2002	2001	2000
USA	1	1	1	1
Singapore	5	5	2	2
Canada	3	8	9	8
Australia	16	14	11	10
Japan	19	30	26	24
Korea	25	27	28	28
Malaysia	28	26	29	27
China	32	31	33	30
India	**42**	**42**	**41**	**39**
No. of Countries	68	56	56	52

Sources: NCR (2004) and WCY (2002)

With massive growth in ICT, more recently emerging segments such as wireless communication, has emerged to be a key driver of c in many industries and countries, particularly emerging economies and India has also witnessed massive ICT-related transformations. The India story in telecom is remarkable with a year on year growth of 75 %, with GSM commanding an imposing 75 % share of the cellular market (Balaji, 2007), the key growth segment. There are many achievements in terms of rapid rise in national penetration (at 17 % but mainly comes from the over 50 % penetration in the metros as rural penetration is barely 2 %), cost efficient coverage (i.e. low costs of cellular), network (GSM subscriber base crossing the 100 million mark which catapulted India to the third position in the global league after China and the U.S.). At the same time the issues such as digital divide and even economic divide may get accentuated, if the competitiveness issues of industry (glimpse given in Momaya {2005}) are not addressed.

An attempt has been made in this paper to evaluate competitiveness of telecom industry in India by focusing on trade competitiveness. Trends in trade competitiveness of select countries is the starting point. Subsequently, firm level dimension is also explored to understand differences. Based on factual perspective, future areas of research are identified. Let's begin with quick picture of evaluation of trade competitiveness.

Evaluating Trade Competitiveness

International trade competitiveness can provide good surrogate for international competitiveness across levels. We explore two levels (country and firm). Data available from the World Trade Organization (WTO) is used for approximate evaluations. Over 15 years (from 1990 to 2005) are taken to understand long term trends. Focus is on telecom equipments, as services trade was and still is highly distorted. Exports and imports statistics were used to calculate trade competitiveness index, a good surrogate for trade competitiveness. Glimpse of the trends is provided in Table 2. The patterns are quite stable over 15 years for mature economies. Central positions for Europe and extremes for the U.S. and East Asia are evident. The worsening

Table 2: Trends in Trade Competitiveness Index for Select Countries in Telecom Equipments

Country / Union Year →	1990	2000	2003	2004	2005
European Union (25)		-0.03	-0.08	-0.08	-0.07
United States	-0.39	-0.37	-0.51	-0.52	-0.55
extra-EU (25) imports		-0.08	-0.16	-0.20	-0.17
Hong Kong,	0.04	-0.03	0.02	0.04	0.05
China	0.02	0.22	0.40	0.47	0.53
Japan	0.83	0.39	0.41	0.38	0.30
Korea, Republic of	0.64	0.42	0.66	0.70	0.70
India	-0.70	-0.71	-0.86	-0.90	-0.91

Sources: Developed based on trade data obtained from WTO (detailed tables on trends in exports and imports are given in Appendix.

Notes: Trade competitiveness index (TCI)= Exports-Imports / (Exports+Imports)

situation for the U.S., particularly in early 2000s, is reflective of overall competitiveness decline in the U.S.

Despite having quite a limited sample, some useful insights emerged from the limited analysis. The most remarkable trends are for two emerging giants—China and India. Massive strides in competitiveness made by China are amply reflected in trends in export as well as TCI. Despite fast growing huge domestic market, China made leap in terms of TCI of 0.02 in 1990 to 0.53 in 2005 (Table 2). The performance is more remarkable when viewed in terms of trends and volume of exports (Table in Appendix). More than 30 time increase in exports in just 15 years has taken China in top ranks of exporting countries. Compare this with other giants (incl. potential) of telecom in Asia and one can get feel for the massive scale-up in competitiveness done by China. While retaining export volumes, Japan has seen loss in its leadership position with TCI from peak of 0.83 in 1990, an ideal position. This loss can be partly attributed to massive gains by China and Korea. The Republic of Korea (South Korea) has scaled-up exports massively by more than 5 times to about US $ 37.8 billion, a remarkable feat for such a small country, between two manufacturing giants—China and Japan. The performance of other emerging economy—India—provides significant learning.

Having similar advantages of youth and vast domestic markets like China seems to have negative impact for trade competitiveness for India. In terms of TCI, India retained the bottom positions in the sample over 15 years. The trend in TCI, -0.91 in 2005 is almost close to the worst position any young country can reach (the worst TCI can be –1.0). This is also reflected in the ranks (Tables in Appendix) and gap between ranks in imports and exports. Gap of –13 for India is the worst in sample compared to the best ones of 5 for Korea. The trade volumes are quite low for India to draw major conclusions about future TCI, but are indicative for adverse trade balances the telecom industry can have for India.

Firm Level Trade Competitiveness

Having got a glimpse of leading countries and trends in macro picture, let us get feel for patterns in Indian context to get clues about the performance and reasons thereof. While hardly any Indian players has very ambitious vision and competitiveness to be a leading international player, their trade performance can give some clues about their international

competitiveness. Getting access to sound international trade-related data is a big challenge. To have comparability, it was decided to use published data from a single source. In the

Table 3 Glimpse of Trade Performance of Leading Players in India

	<----------2005---------->					<----------2006---------->				
Company	Forex Earn. Rs. Crore	Forex Expn. Rs. Crore	TCI	Total Income	Forex Earn. as % of income	Forex Earn. Rs Crore	Forex Expn.Rs Crore	TCI	Total Income	Forex Earn. as % of income
Bharti Airtel	986.35	2255.03	-0.39	7951.86	12.40	1276.04	2444.00	-0.31	11307.55	11.28
MTNL	4.68	5.44	-0.08	6073.99	0.08	8.35	2.76	0.50	6091.00	0.14
VSNL	1951.90	1356.64	0.18	3410.66	57.23	1712.01	970.95	0.28	3953.30	43.31
Tata Telesevices(Mah)	0.00	366.19	-1.00	843.66	0.00	0.00	255.31	-1.00	1097.18	0.00
Himachal Futuristics	3.93	341.03	-0.98	452.84	0.87	4.08	197.83	-0.96	766.20	0.53
Tulip IT	0.00	5.14	-1.00	340.55	0.00	0.00	14.49	-1.00	509.98	0.00
Avaya Global Connect	6.67	212.56	-0.94	337.86	1.97	16.42	237.68	-0.87	462.73	3.55
Total	2953.53	4542.03	-0.21	19411.43	15.22%	3016.90	4123.02	-0.15	24187.94	12.47%

Source: Developed based on data taken from FINANCIAL EXPRESS (2007)

sample focusing on top 1000 players, only 7 telecom related players found the place (Table 3), majority of them being service providers. Hardly any Indian equipment player is visible, thus confirming extremely low competitiveness for India discovered above.

Several important findings emerge, despite limited sample. While Indian players are known for their cost competitiveness (e.g. in terms of services they are able to offer at one of the lowest ARPU in the world), that has yet to be translated into international competitiveness, as measured in terms of TCI. On total sample, forex earning as % of total income were at 15.22 % in 2005. Earning hardly grew in 2006 and hence the trend shows decline to 12.47 % in 2006 (Table 3). Frankly, majority of the earning are accounted for by VSNL and Bharti, majority of that may be due to earning from terminating call charges, not a real export. The worst TCI (-1.0) for several players hint at import focus with zero exports for several players. While having the best TCI, public sector (e.g. MTNL) are marginal players in international trade (more so in exports) due to constraints.

Areas of Further Work

Key objective of this exploratory factual article is to develop areas of future research in emerging industries of great significance for India by taking case of telecom. While we often see only one side of the shining picture of growth about these industries in popular media, the facts in this article hint at the need for balances. Here is just an indicative list of potential areas for further work.

- Despite lot of hype, the real dynamics of competitiveness of in global and Indian ICT contexts is still poorly understood by most leaders and professionals in India. The dynamic inside the ICT market in Indian context (as was done by Chen and Watanabe {2006}) need to be explored. While it may be difficult to achieve as great competitiveness heights such as China, Japan and Korea in near future, attempt should be made to understand the dynamics in Indian context to achieve some balances, at least in industries such as ICT where Indian firms have better competencies.

- Revealed trade competitiveness can provide better insights in some contexts. Efforts can be done to collect relevant data and develop such measures for industries in India.
- Trends in positions of world's top 10 countries in telecom equipment production between 1991 and 1996 indicated very stable positions. Only exception was Korea, which jumped from 10th to 7th rank over the period (Kim, 2001), may be due to more than 20-fold increase in exports of Korean ICT industry. Korea has established as a leading country in telecom from equipments to services, having top slots in diffusion of 3G, broadband, etc. Such contexts should be researched in depth to gain deep insights.
- Despite national telecom policies (1994, 1999) talking about telecom manufacturing and trade balancing, situation has kept worsening on equipment front (as reflected in trade competitiveness index of -0.91 in Table). One pretext that was given was small markets in India. Korean example clearly indicates that small market is not a barrier, but can be made an enabler for international competitiveness. With reality of India becoming a top telecom market worldwide, there can be no better time to indigenize local development and sourcing. While 2005 saw some movement beginning with global handset manufacturers (Nokia, LG) starting assembly (Parthasarathy, 2006), research need to be carried out about competitiveness of local players to compete locally. It need to be mentioned that China has very successfully leveraged large market for international competitiveness with players such as Huawei, GTE and scores of others now successfully competing in domestic and global markets.
- While there are firms in telecom (e.g. from leading industrial houses of India) who have embraced business excellence, and it might have improved many of their processes, it still does not reflect very positively in their trade competitiveness. There is need to research how to enhance business excellence contribution to trade and over all competitiveness of the firm, industry and the country.

Concluding Remarks

Very limited exploration in trade scenario for an emerging industry (EI) of ICT is not very conclusive, but do provide clues to draw some insightful concluding remarks. Remarkable strides made by the East Asian countries indicate that EI such as ICT can do massive contributions to competitiveness of a country, if hardware industries (telecom equipment in this case) also become competitive. Firms in India have lot to learn from China, Japan and Korea about competitiveness in hardware industries as well as many other aspects. Massive contributions of firms such as NTT DoCoMo, Samsung, Huawei, ZTE to competitiveness of their countries is remarkable. Sustained worst position for India in terms of trade competitiveness should be a cause for concern for leadership in industry and government. Any country aspiring to become a developed country must have at least few industries with capabilities to compete internationally and balance trade. While software services have been doing good job, telecom industry should also contribute to exports. Competitive firms that wish to compete for future (Hamel and Prahalad, 1994) invest in development of the competitiveness industry value system, not just narrow segments.

Success demands, sound strategic management and flexibility directed towards striving for industry excellence. Attempts to think about root causes hints that the challenges of real competitiveness are quite complex and will need systematic improvements at many levels from individuals with right value to good governance up to country level. India has capabilities to face the challenges and will progress in right directions with enhanced team leadership and effective leverage of competitiveness strategies. Let's hope that recent developments to develop

hardware industry and massive scale-up in quality of products in India can minimize the adverse trade impact an emerging industries such as ICT can have for a developing country and transform Indian industry to have maximum contributions in terms of exports, employment, investments and diffusion of appropriate ICT technologies for India's active role in the emerging knowledge-based economy.

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Appendix

Table A1: Leading Exporting Countries In Telecommunication Equipments, amounts are in US $ millions

Rank in 2005	Country	1990	2000	2003	2004	2005	% CAGR (1990-2005)	% CAGR (2000-2005)
1	European Union (25)	-	109990	103571	130270	156987		7
8	United States	9901	32980	23705	28073	30536	7.80	-2
4	extra-EU (25), exports	-	36406	34815	44042	57220	-	9
5	Hong Kong,	6806	19618	28220	36824	41868	12.88	16
3	China	2623	19508	45032	68497	94856	27.02	37
7	Japan	28809	30516	30638	35879	33648	1.04	2
6	Korea, Republic of	6273	14364	26634	36600	37746	12.71	21
26	India	31	120	232	236	293	16.14	20

Source: Developed based on analysis of data obtained from WTO.

Table A2: Major Importing Countries in Telecom Equipments, amounts are in US $ millions

Rank in 2005	Country	1990	2000	2003	2004	2005	% CAGR (1990-2005)	% CAGR (2000-2005)
1	European Union (25)	--	115743	120678	152052	181087		9.37
2	United States	22727	71769	72510	89442	105887	10.80	8.09
3	extra-EU (25) imports	--	43099	48119	65824	81320		13.54
4	Hong Kong,	6343	20742	26925	33966	38021	12.68	12.88
5	China	2540	12413	19512	24627	29362	17.72	18.79
6	Japan	2620	13470	12910	16082	18003	13.71	5.97
11	Korea, Republic of	1368	5830	5486	6405	6695	11.17	2.81
13	India	173	701	3173	4399	6023	26.70	53.75

***SOURCE*:** Developed based on analysis of data obtained from WTO.