The Over-Riding Dominance of Chinese Mobile Companies in India: A Critical Theoretical Introspection

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Abstract
China liberalised its economy in 1978 while India wasted twelve vital years in political debate and ultimately liberalised its economy in 1991. After initial ups & downs India has been able to form a liberal manufacturing policy which matches with most of the developing nations. China had successfully formulated liberal manufacturing policy and enjoyed massive influx of FDIs. China occupies first position in global manufacturing output while India occupies sixth position in the list. Chinese mobile companies have unprecedented dominance in Indian market. Ironically Indian mobile companies are struggling for their survival only with negligible diminishing market share. This paper though aims to understand reasons of such dominance of Chinese mobile companies in India but also takes into consideration broad economic policies of both India & China mainly in post-liberalisation period.

Keywords: India, China, Manufacturing, Globalisation, Mobile.

Introduction
The border conflict between India and China has forced the media & academicians to focus on a common topic namely ‘Make in India’. The pertinent point to the issue was that it was no longer a political slogan but a very much vibrant reality. China has an over-whelming dominance in trade with India. The dominance of Chinese manufacturers in global market is quite visible. After globalisation Indian economy has experienced enormous growth but it was mostly based on growth on service sector. India is a signatory of WTO & hence has to accept the conditions of WTO. Globalisation in nutshell means that the producers would be able to produce anything in anywhere and consumers would be able to purchase anything from anywhere. As a result Indian mobile market is mostly dominated by China.
Objective of the Study

This paper aims to study the reasons of dominance of Chinese mobile companies in India with special reference to success & failure of Indian manufacturers in pre-globalisation (1947-1991) & post-globalisation (1991 onwards) period. However author has taken the opportunity to understand the issue in much broader perspective taking into accounts the economic policies of both the countries in post liberalisation period.

Limitation of the Study

This paper is based on secondary data.

Scope for Further Research

A field work (primary data) based work supported by secondary data would be helpful in enhancing the knowledge of academic domain.

Methodology

This paper is based on secondary data which has been collected from journals & websites.

Review of Literature

The Nehru era witnessed the recovery of India and the igniting of a growth process that has remained undimmed for over five decades, during which time the economy has been hastening slowly\cite{4}. The repeated acceleration of the growth rate implies that drawing a likeness between the policies of the Nehru era and the Soviet Union is false as growth in India has been sustained in a way that it was not in the case of former Soviet Union\cite{1}. Actually, India’s growth rate has accelerated and it may be suggested that this is not incompatible with the Nehru- Mahalanobis Strategy\cite{1}.

From the point of view of understanding the past, Desai’s comment “Today when people criticise the Nehruvian model, little do they know that it began with the daughter and not the man himself.” is apt\cite{1}. While it was a disappointing end to a high-minded journey, it is important to place the outcome in proper perspective when we evaluate the Nehru-Mahalanobis Strategy\cite{1}.

Since independence, India has enjoyed considerable political freedom, but, for the most part, economic freedoms have been low\cite{2}. Immediately after independence, the state restricted private business and international trade in many ways\cite{2}. It was difficult to start, expand, run, and close businesses because of the severe regulatory restrictions placed on such activities\cite{2}. International trade was restricted by tariff and quantitative restrictions\cite{2}. Most economic activities were either monopolised or controlled by the state\cite{2}. For some activities, though in theory private sector participation was possible, the state’s presence crowded out such participation\cite{2}.

India is the second most populous country in the world\cite{3}. After its independence in 1947 from about two centuries of colonial rule, it adopted a mixed economy model with a key role to the state in industrial production and heavy reliance on an import substitution policy\cite{3}. This policy helped to lay the foundation for industrialisation, but overall economic growth was low with a trend growth rate of 3.5 per cent per annum which translated to only about 1.5 per cent in per capita terms\cite{3}. As a result, majority of the people remained below the poverty line till mid-seventies\cite{3}. Starting with similar level of living in the 1950s, the outward oriented East Asian economies grew fast taking advantage of world trade expansion and investment flows\cite{3}.

The trajectory of economic policies favouring India’s growth was path dependent\cite{4}. From 1947 to 1975 the policy consensus favoured an important role of the state within a relatively closed economy\cite{4}. Private enterprise survived during this period but India’s trade declined\cite{4}. Changes in the policy consensus favouring economic deregulation began to appear in the mid-1970s, which prepared the ground for the tectonic policy shifts beyond 1991\cite{4}.
Soon after independence, India adopted trade policies which made its manufacturing economy one of the most protected in the world. Now, at or near the end of a long series of extremely cautious liberalising reforms over many years, with frequent backtracking episodes, exceptions and false starts, India has emerged as one of the world’s low protection and open industrial economies. Only very few Quantitative Restriction (QR) on manufactured goods remain, export policies for manufactured goods have been streamlined and simplified, and following new reductions introduced in the March 2007 budget, average manufacturing tariffs are now just slightly above China’s and Korea’s and at about the same level as Sri Lanka’s, which has traditionally been considered the sole low protection industrial economy in South Asia. Reflecting this new openness of the manufacturing sector, in 2006 manufactured exports and imports were respectively about 62 percent and 58 percent of manufacturing GDP, whereas in the mid-1980s they were only about 16 percent and 30 percent. During the “License Raj” years India consistently ran substantial deficits on manufactured goods account, but now manufactured exports consistently exceed manufactured imports and have become an important driver of industrial and general economic growth, increasing at between 20–25 percent annually since 2002 and probably accounting for about a quarter of manufacturing GDP, compared with only 6 percent or so during the pre-Liberalisation years. Despite continuing domestic policy constraints and infrastructure bottlenecks, after many years of disappointingly low growth, since about 2004 the manufacturing sector appears to have moved to a higher growth trajectory of about 9 percent to 10 percent annually.

The performance of the India’s corporate sector weakened after 1997, and many of the promising developments during the period of rapid economic growth following the economic reforms of 1991 were partially reversed. Aggregate leverage increased and the maturity structure of debt shifted slightly toward short-term borrowing. Companies also suffered from declining profitability. An analysis of ICRs reveals that more than 30 percent of the companies were unable to generate enough cash to cover their interest payments in 2002, which is a potential risk to lenders.

The big debate about Liberalisation is about the capacity of the Government to counter its negative effects. It is unlikely that a country like India, which is basically run by a bureaucracy, comprising mostly of self-serving civil servants, would be able to shape its economy with the shifts in global economy without the Government playing any role in it. Hence it needs to reorient its style of governance to promote synergy between the private and public sectors to ensure that market processes are not manipulated and both continue to serve the broad societal agenda.

Earlier, the Government role was paramount and the private sector supplemented it, but now the opposite should be the case.

In 1991, initiated by a balance of payments crisis and macroeconomic instability, the process of full-fledged liberalisation of the economy has begun. Trade barriers were slashed, foreign investment was welcomed, the license raj was dismantled and privatization began. Consequently, the economy started to boom at around 7 to 8 percent. When the industrial sector is examined, it is found that in terms of production, prices, investment and trade; it has made huge gains after the economy started opening up in the 1980s, although with cyclical fluctuations. However, employment has not shown any significant improvement in the more than five decades of independence. The growth of small-scale industries is satisfactory. Therefore it may be concluded that although the industrial sector of India has grown after independence, the rate is below expectations, especially after liberalisation. According to Panagariya (2001), if India grows only at 6 percent p.a. on a sustained basis, it will take 14 years to reach the current level of per capita income of China, 36 years to reach Thailand’s, and 104 years to reach that of the United States. Thus, the need for accelerated growth can hardly be overemphasised.

The post reform period up to 2000-01 was marked by considerable fluctuations and thus showed a total lack of consistency in industrial growth performance. After a sharp fall to 0.6 per cent in 1991-92, the industrial growth rate exhibited a rising trend from 1992-93 registering an overall growth of 2.3 per cent during 1992-93, 6.0 per cent in 1993-94, 9.1 per cent in 1994-95 and further to 13.0 per cent in 1995-96. After reaching a peak in 1995-96, industrial growth slowed down considerably in 1996-97 (6.1 per cent) and registered a marginal improvement (6.7 per cent) in 1997-98. The downward trend continued in the next year too, with industrial growth falling to 4.1 per cent in 1998-99. The slowdown of industrial growth in three consecutive years was mainly due to the poor performance of electricity generation, mining, and decline in agriculture production in 1997-98. It also affected rural incomes which directly resulted in lower demand for certain industrial product, capital markets remained depressed for the past couple of years, drying up source of investment funds for industry, export growth had been...
sluggish in 1996-97, low demand for exports adversely affected industrial production and several industries had been subject to competitive pressure from imports\(^9\). After a turnaround in 1999-2000, industrial growth slowed down during 2000-01\(^9\). Overall, industrial growth during 2000-01 at 5.0 per cent was lower than 6.7 per cent during the corresponding period in 1999-2000\(^9\). The average rates of growth of Indian Industry in the post reform period (1991-92 to 2000-01) were 6.0 per cent, the growth of manufacturing sector was 6.3 per cent, mining 3.3 per cent, and electricity was 6.6 per cent\(^9\). The average annual growth rate of industrial production which was 7.8 per cent in the pre-reform decade (1981-82 to 1990-91) fell to 6.0 per cent during the period 1991-92 to 2000-01\(^9\). The main causes of unsatisfactory industrial performance in post reform period up to 2000-01 were exposure to external competition, slowdown in investment, infrastructure constraints, and difficulties in obtained funds for expansion, sluggish growth in exports, anomalies in tariff structure and contraction in consumer demand\(^9\).

In the revised 2007 figures, based on increased and sustaining growth, more inflows into foreign direct investment, Goldman Sachs predicts that "from 2007 to 2020, India’s GDP per capita in US$ terms will quadruple", and that the Indian economy will surpass the United States (in US$) by 2043\(^{10}\). In spite of the high growth rate, the report stated that India would continue to remain a low-income country for decades to come but could be a "motor for the world economy" if it fulfills its growth potential\(^{10}\). Goldman Sachs has outlined several things that it needs to do in order to achieve its potential by 2050, including improving governance, education, infrastructure and environmental quality, controlling inflation, introducing a credible fiscal policy, liberalising financial markets, increase trade with its neighbours and raising agricultural productivity\(^{10}\). Slow agricultural growth is a concern for policymakers as some two-thirds of India’s people depend on rural employment for a living\(^{10}\). Current agricultural practices are neither economically nor environmentally sustainable and India’s yields for many agricultural commodities are low\(^{10}\). Poorly maintained irrigation systems and almost universal lack of good extension services are among the factors responsible\(^{10}\). Farmers’ access to markets is hampered by poor roads, rudimentary market infrastructure, and excessive regulation\(^{10}\). According to the World Bank, India’s large agricultural subsidies are hampering productivity-enhancing investment\(^{10}\). While overregulation of agriculture has increased costs, price risks and uncertainty, Governmental intervention in labour, land, and credit markets are hurting the market\(^{10}\). Infrastructure and services are inadequate\(^{10}\). Adoption of modern agricultural practices and use of technology is inadequate, hampered by ignorance of such practices, high costs, illiteracy, slow progress in implementing land reforms, inadequate or inefficient finance and marketing services for farm produce and impracticality in the case of small land holdings\(^{10}\). The allocation of water is inefficient, unsustainable and inequitable\(^{10}\). The irrigation infrastructure is deteriorating\(^{10}\). Irrigation facilities are inadequate, as revealed by the fact that only 39% of the total cultivable land was irrigated as of 2010, resulting in farmers still being dependent on rainfall, specifically the monsoon season\(^{10}\). A good monsoon results in a robust growth for the economy as a whole, while a poor monsoon leads to a sluggish growth\(^{10}\).

Make in India is a new national program designed to transform India into a global manufacturing hub\(^{11}\). It contains a raft of proposals designed to urge companies-local and foreign-to invest in India and make the country a manufacturing powerhouse\(^{11}\). The major objective behind the initiative is to focus on job creation and skill enhancement in 25 sectors of the economy\(^{11}\). The initiative also aims at high quality standards and minimizing the impact on the environment\(^{11}\). The initiative hopes to attract capital and technological investment in India\(^{11}\). There is laudable attempt to reduce red tape, enhance foreign direct investment limits, prune labour laws and environmental clearance processes and in general to speed up bureaucratic processes\(^{11}\). Some sectors like information technology, automobile- components, pharmaceuticals etc. are globally quite competitive\(^{11}\). Some sectors such as defense manufacturing, food processing and electronics are not competitive\(^{11}\). Some are reasonably competitive like electrical machinery, textiles and leather\(^{11}\). Ironically, ignoring rhetoric, the demographics of India are all about a young, under-skilled workforce\(^{11}\).

India is the fifth largest manufacturer in the world with a gross value added (GVA) of INR 21,531.47 billion in 2017-18 (2nd advance estimate for 2017-18 at 2011-12 prices)\(^{12}\). The sector registered a compound annual growth rate (CAGR) of around 7.7 per cent between 2012-13 and 2017-18\(^{12}\). The Government has taken several initiatives to promote manufacturing\(^{12}\). Among these are the Make in India Action Plan aimed at increasing the manufacturing sector’s contribution to 25 per cent of GDP by 2020, the Start-up India initiative to promote entrepreneurship and nurture innovation, and the Micro Units Development and Refinance Agency (MUDRA) and Stand-up India to facilitate access to credit\(^{12}\). It has also undertaken massive recapitalisation of public sector banks to ease availability of credit to micro, small and medium enterprises (MSMEs)\(^{12}\). Besides, it has undertaken major infrastructure projects, such as the setting up of industrial corridors, to boost manufacturing\(^{12}\). The Department of Industrial Policy & Promotion (DIPP) has been engaging with States/UTs to enhance the ease of doing business\(^{12}\). Following concerted
efforts of the Government, the World Bank ranked India 100th among 190 countries in the Ease of Doing Business (EODB) in 2018\textsuperscript{12}. This was a jump of 34 positions since 2014. While these indices are useful for comparison, actual improvement in EODB will come only with greater coordination between the center and states\textsuperscript{12}. The foreign direct investment (FDI) regime has been substantially liberalised, significantly improving India's rank in terms of annual FDI inflows from 14 in 2010 to 9 in 2017\textsuperscript{12}. However, India receives only 25 per cent of the FDI that China gets and only 10 per cent of what the USA receives\textsuperscript{12}. FDI inflows into the manufacturing sector reached about 35 per cent of total FDI\textsuperscript{12}. Manufacturing as a percentage of the gross domestic product has remained at about 16 per cent\textsuperscript{12}. Improvement is evident in recent quarters, where manufacturing growth at 6.9 per cent and 8.1 per cent in Q2 and Q3 2017-18 (year-on-year as compared to 2016-17) outpaced GDP growth\textsuperscript{12}.

The main constraints on achieving the objectives set for India's industry in 2022-23 are the following\textsuperscript{12}:

Regulatory uncertainty\textsuperscript{12}: Regulatory risks and policy uncertainty in the past have dented investor confidence.

Investment\textsuperscript{12}: There has been a cyclical slowdown in fresh investment since 2011-12.

Technology adoption\textsuperscript{12}: The adoption of new technologies like artificial intelligence, data analytics, machine-to-machine communications, robotics and related technologies, collectively called "Industry 4.0", are a bigger challenge for SMEs than for organized large-scale manufacturing. Data security, reliability of data and stability in communication/transmission also pose challenges to technology adoption.

Exports and insufficient domestic demand\textsuperscript{12}: There has been no export driven industrial growth. Domestic demand alone may not be adequate for sustained, high value manufacturing.

Challenges to doing business\textsuperscript{12}: Despite recent improvements in our global EODB rank, it continues to be a drag on the system. This is also true of investment conditions in the states. Getting construction permits, enforcing contracts, paying taxes, starting a business and trading across borders continue to constrain doing business.

The analysis shows two dimensions of arguments\textsuperscript{13}. One side is optimistic nature which expects more investment by free flow of capital\textsuperscript{13}. On the other side, it has been criticised on the economic front; it is adopting what look like neo-Nehruvian ideas\textsuperscript{13}. Instead, Modi (The Prime Minister of India) should focus on making business as easy and honest as possible, avoiding artificial props, curbing inflation and fiscal deficits, ensuring a realistic exchange rate and letting market to decide what sector to flourish\textsuperscript{13}. Investors from everywhere will then rush to make in India\textsuperscript{13}. The country is moving away from a mixed to capitalist economy with corporate honchos appearing set to get a "bonanza of sorts" and the poor a 'pittance'\textsuperscript{13}.

Advantages of 'Make in India' include manufacturing sector led growth of nominal and per capita GDP (Gross Domestic Product), increase in employment rate, development of technical expertise and creative skills etc\textsuperscript{14}. Disadvantages of 'Make in India' include unsustainable focus on export promotion measures, neglecting the world economic scenario (which may not help 'Make in India' at all) etc\textsuperscript{14}.

Make in India is an ambitious project, but it is one that India desperately needs to kick start and sustain its growth momentum\textsuperscript{15}. With relentless policies towards this end, it is possible to make India the powerhouse of manufacturing sector in the world\textsuperscript{15}. At this moment, our Prime Minister's Make in India campaign appears to be an imaginative marketing campaign\textsuperscript{15}. But there is much thought and even more work that is required to convert this to reality\textsuperscript{15}. Fortunately, we have many natural advantages including a big labour pool and a large domestic market\textsuperscript{15}. In addition, with China's competitive advantage in manufacturing is eroding\textsuperscript{15}. India has the opportunity to take some share of global manufacturing away from China\textsuperscript{15}. All we have to do to improve the ease of doing business in India are these stop tax terrorism, improve our infrastructure, reform labour laws, investment in skills development, easy land acquire laws, transparency in administration, liberalised Government policies, good governance, restore broken trust between industry and Government, implementation of Goods and Services Tax (GST) and fast track approval\textsuperscript{15}. At the end it can be concluded that the concept of 'Make in India' will definitely going to boost up the Indian economy and will help in meeting the major challenges of poverty, unemployment, low per capita income and help in sharing the burden of Government\textsuperscript{15}.
India has the capability to push its manufacturing contribution to GDP to 25% by 2025\textsuperscript{16}. Government has to act as the central pivot of aligning industries, private companies, public sectors and all stakeholders in realising this vision\textsuperscript{16}. Government has to put policies in place be it sector reforms, labour reforms or the elimination of business barriers\textsuperscript{16}. The Government of India has taken a number of steps to further encourage investment and improve business climate\textsuperscript{16}. ‘Make in India mission’ is one such long term initiative which will help to realize the dream of transforming India into a ‘manufacturing hub’\textsuperscript{16}.

The “go global” policy has been highly successful in that it has achieved a tremendous acceleration in China’s OFDI (Outward Foreign Direct Investment)\textsuperscript{17}. Having punched far below its weight in this regard in the first two decades of economic reform, the country now ranks as one of the world’s largest exporters of capital\textsuperscript{17}. This investment outflow has become more sectorally and geographically diversified, and is no longer limited to state-owned enterprises but now increasingly involves the potentially more dynamic private sector\textsuperscript{17}. These flows can be of great benefit to China and the rest of the world, expanding the pool of capital to sustain global growth, while also bringing other, less directly economic, benefits such as promoting innovation and cultural interchange\textsuperscript{17}. The Central Government has played the main role in promoting OFDI (Outward Foreign Direct Investment) by setting out the “go global” policy goal in unambiguous terms and by gradually relaxing restrictions, cutting red tape, allocating credit for major outward investments and providing information about host countries\textsuperscript{17}. Further expansion of OFDI (Outward Foreign Direct Investment) can be achieved by maintaining these policies\textsuperscript{17}. Now that outward investment is a well-established trend, the Government may wish to consider putting greater emphasis on making further improvements to the institutional framework for outward investment, in particular reducing remaining bureaucratic obstacles, especially the examination and approval process, and improving information, rather than on continuing direct financial involvement in OFDI (Outward Foreign Direct Investment)\textsuperscript{17}.

China’s impressive performance in the manufacturing sector has stunned the world even as it increased its cheaply produced exports across the world\textsuperscript{18}. Over time, China’s indigenous manufacturing sector was substantially beefed up on the back of rising FDI into the sector\textsuperscript{18}. As Rodrik (2012) asserts, much of China’s performance on the exports front had to do with specific Government policies geared towards broadening and modernizing China’s manufacturing base\textsuperscript{18}. China followed the ideal stage wise development theory as it became an enormous industrial economy from being an agrarian one, only later to be followed by both the emergence of the service sector and a parallel sophistication of manufacturing production\textsuperscript{18}. India in contrast seemed to have skipped the industrial phase as its manufacturing sector is lurking in the shadows with minimal investment, shoddy policy formation and implementation, bad infrastructure and a lack of FDI\textsuperscript{18}. Important policy measures that drove China’s rise as a manufacturing powerhouse includes firstly the careful transfer of its rural labour surplus into the town and village enterprises\textsuperscript{18}. This happened with the introduction of agriculture sector reforms like the household responsibility system and the dual pricing system, which increased farm incomes and productivity and left the labour surplus to be absorbed in industries across China\textsuperscript{18}. Once the stage was set, China brought in a SEZ (Special Economic Zone) policy which was hugely favourable to foreign investors and was strategically build around ports to enable exports\textsuperscript{18}. What came in handy was China’s massive labour pool which was governed by flexible labour laws\textsuperscript{18}. China brought in flexibility to its labour markets and handed much freedom to the management\textsuperscript{18}. Foreign investors saw an opportunity in this and poured in capital in China’s SEZs\textsuperscript{18}. Meanwhile it was FDI that in turn not only provided jobs, increased productivity and boosted the manufacturing sector output, but also shored up China’s domestic manufacturing base\textsuperscript{18}. Alongside these policies, China followed a currency policy which artificially pegged the Chinese Yuan considerably lower than what floating exchange rates would have it at\textsuperscript{18}. This acted as a subsidy and helped Chinese goods flood markets worldwide\textsuperscript{18}. The role of trade in China’s economy, and specifically in the manufacturing sector is vital\textsuperscript{18}. A somewhat less watched feature of China’s manufacturing miracle is the massive state-sponsored infrastructure development projects which apart from boosting economic growth by themselves also attracted FDI in large numbers as investors base their decision on the availability of quality infrastructure\textsuperscript{18}. This FDI also helped China’s manufacturing sector gradually move up the value chain, as the share of high technology and value added manufacturing goods in China’s total manufacturing exports increased over the last decade\textsuperscript{18}. During this time, the importance of labour intensive products has shown somewhat come down\textsuperscript{18}. This again points to the very transitory nature of Chinese economic policy focus\textsuperscript{18}. In contrast, India performed below par in almost all related aspects\textsuperscript{18}. For one, FDI in the manufacturing sector just didn’t pick up as major hindrances by way of lack of infrastructure and rigid labour laws remained\textsuperscript{18}. Its labour laws intended to be labour friendly but instead blocked investments and made creation of jobs less probable, while leading to the informalisation of labour force\textsuperscript{18}. Again, land acquisition was problematic and political considerations made it difficult for policymakers to engage in reforms for a long time\textsuperscript{18}. Infrastructure development was poor, and strains on the exchequer made it difficult for the Government to fund large projects by itself\textsuperscript{18}. PPP projects suffered from time and cost delays and also corruption\textsuperscript{18}. 
Also, while China adapted to the needs of the ever changing global economy and undertook sophistication/value addition via FDI, India, partly due to the lack of FDI in the sector, did not manage to catch up\textsuperscript{18}. Its share of world manufacturing remains low and stagnant\textsuperscript{18}.

The demographic assessment indicates several distinct advantages for India\textsuperscript{19}. Its population will continue to increase in size through 2025; the share of its population that is of prime working age is growing rapidly and will continue to do so beyond 2025\textsuperscript{19}. Its currently high dependency ratio is decreasing rapidly, and this will continue beyond 2025\textsuperscript{19}. In contrast, China’s population will grow at a slow and decreasing rate, peaking several years after 2025 and declining thereafter\textsuperscript{19}. Its dependency ratios will be rising in the 2010–2025 period, and the rising costs of health care for the elderly will become an increasing burden\textsuperscript{19}. Gender imbalance is present in both countries but more severe in China, constituting a further source of demographic stress\textsuperscript{19}. In sum, demographic changes are likely to be relatively more favourable to India than to China\textsuperscript{19}. From a developmental standpoint, demographic changes will provide a dividend for India and be a drag on the progress of China\textsuperscript{19}.

The macroeconomic analysis also indicates that the average annual growth rates of India and China may be about equal over the next 15 years, the absolute difference between their respective GDPs is likely to increase in China’s favour, simply because of the differences in starting points: China’s current GDP is about three times larger than India’s\textsuperscript{19}. Whereas China’s GDP in 2007 was $1.4 trillion larger than India’s, in 2025, the difference between their respective GDPs will jump to $4.4 trillion, assuming both economies grow at the same average annual rates\textsuperscript{19}. So, our macroeconomic comparisons are relatively favourable to China\textsuperscript{19}. A similar pattern emerges in the assessments of science and technology and of spending on defense and defense procurement, and for similar reasons\textsuperscript{19}. As with the macroeconomic assessment, the substantially larger base that China starts from generally results in higher absolute numbers for S&T outputs and for defense spending and procurement through 2025\textsuperscript{19}. Thus, our assessments for these two domains show distinct advantages for China\textsuperscript{19}.

In the final session of the conference, participants sought to identify some of the most important themes that had been identified over the previous day and a half\textsuperscript{20}. Moderator Denis Simon of the Levin Institute began the session by suggesting five key points\textsuperscript{20}:

(1) We are entering an era with multiple scenarios, much fluidity and turbulence, and potential for international economic and political conflict\textsuperscript{20}.

(2) China is producing a huge number of science and engineering graduates for what may be different paths of talent – a “just in case” strategic innovation on the “just in time” business philosophy\textsuperscript{20}. Understanding the demand for talent will be important\textsuperscript{20}.

(3) For the United States, China poses a paradigm change far greater than Japan’s growth in the 1980s\textsuperscript{20}. All the systems that we have taken for granted - manufacturing, education, and competition— are unraveling, so Americans need to put on new glasses for viewing the world\textsuperscript{20}. One reality is that multinational companies have moved much further into globalization than most people perceive or understand\textsuperscript{20}.

(4) In education, the issue is not quantity of academic degrees but quality of talent\textsuperscript{20}. Talent must be prepared to adapt to new environments, understand how to manage risk and uncertainty, and know how to make decisions\textsuperscript{20}.

(5) Does the U.S. Government understand what these trends mean? What are the public policy implications\textsuperscript{20}? Clearly, there is a need to adapt policy more quickly\textsuperscript{20}.

Pete Engardio of BusinessWeek observed that the conference had not turned up examples of important next-generation products coming out of China or India\textsuperscript{20}. Was that a function of the sectors examined or of looking in the rear view mirror\textsuperscript{20}?

Another will be dealing with unpleasant historical legacies\textsuperscript{20}. A third is how we innovate in the consumption of energy\textsuperscript{20}. The United States can be a leader, not by “beating others” in competition but by showing the way\textsuperscript{20}.

Several speakers referred to the importance of labour mobility as a source of cross-pollination in the emerging global economy\textsuperscript{20}. In the near term the United States is likely to experience a movement of highly trained people back to their countries of origin, including India and China\textsuperscript{20}. But the United States should endeavor to remain a magnet for
foreign talent, for example by lowering barriers to entry, including delays in visa processing. Near the 50th anniversary of the Soviet launch of Sputnik, conference participants were reminded that the prospect of Chinese and Indian competition may spur efforts to renew U.S. education and innovation.

But conference chair David Morgenthaler observed that this will depend on recognizing that opportunities and needs change. Strikingly, the United States lacks a business plan for its future. The economy is riding Moore's Law regarding the increase in computer processing power for a few more years; but beyond that, future drivers of growth are unclear. What is clear, he said, is that the United States needs to do a better job of strategic planning as the economies of China and India will surpass ours in size.

Chinese and Indian participants—in particular Mu Rongping of the Chinese Academy and Rishikesha Krishnan of the Indian Institute of Management—noted that there will continue to be points of tension between their countries and the United States, particularly over trade and the U.S. current account deficit; but they expressed confidence in the flexibility of the U.S. economy and its ability to adapt and in the ability of all three countries to learn from each other how to sustain innovation and growth.

The sustained growth of the Chinese economy is the impressive performance of its manufacturing sector. Key highlights include:

A strong infrastructure and supplier base (including OEM contract manufacture of finished goods) provides significant competitive advantages in traditional industries. Chinese firms are world leaders in volume terms across many sectors including high-tech sectors such as aerospace, shipbuilding, steel, IT and telecommunications. In selected industries the market dominance of Chinese firms has resulted in them leading next generation manufacturing technologies e.g. steel, telecoms, shipbuilding and to a lesser degree, in mature markets, viz. domestic appliances, textiles and leather. Many Chinese manufacturing firms readily invest in extensive upstream supply networks either as part of highly concentrated inter-firm supply clusters or more vertically integrated models. Chinese firms often utilizing modest entry positions in the value chain (e.g. beginning as a regional distributor) are rapidly entering adjacent, more value added position; this allows rapid upgrading of skills and capabilities. Many state-controlled enterprises have also grown dramatically with 14 major Chinese state industries present in the Fortune 500 list.

Current industry absorptive capacity remains low but emerging flagship companies and industries may provide models for moving from ‘imitator’ (reverse engineering focus) to ‘innovator’ (leading-edge technology). These developments, coupled with heavy investments in key state industries, education and technology universities, mean Chinese capabilities are likely to develop faster than in other developing economies.

Table One provides a summary of the relative contributions by percentage of each of the eight major economic drivers of the China price using the mid-range estimates developed in the analysis. Given the difficulty of obtaining accurate and reliable data and the need for some simplifying assumptions, these estimates are likely to have a wide margin of error. However, they do provide some important perspective on the relative importance of the various sources of competitive advantage in China.

Lower labour costs account for 39% of the China price advantage and clearly represent the dominant driver (Table One). This finding suggests that more than one-third of China’s competitive edge is driven by a “fair” advantage in a “free trade” environment, i.e., China’s comparative advantage in labour resources. However, China’s labour advantage has not gone without criticism with respect to unfair trading practices. As noted in a petition by the US AFL-CIO to the Office of the US Trade Representative, “workers in China frequently are paid less than the country’s minimum wage, denied overtime pay, denied collective bargaining rights and often subjected to abusive treatment.”

Industrial network clustering provides another 16% of the China price advantage, and this is perhaps the most important area where foreign competitors have the most to learn from Chinese manufacturers in the free and fair trade arena (Table One). As noted in the text, the scale and scope and high evolutionary form of this supply chain management practice is unparalleled in the world, and provides China with a significant cost advantage.
Five of the remaining economic drivers of the China price are those which have been widely criticised as constituting unfair trade practices\textsuperscript{22}. Export subsidies account for 17\% of the advantage, an undervalued currency adds 11\%, and counterfeiting and piracy contribute 9\% (Table One)\textsuperscript{22}. Lax environmental and worker health and safety regulatory regimes add another 5\%\textsuperscript{22}. Together, these drivers account for 42\% of the China price advantage (Table One)\textsuperscript{22}.

Lastly, there is the driver of FDI to consider (Table One)\textsuperscript{22}. It provides 3\% of the China price advantage—and likely a much greater cumulative contribution over time\textsuperscript{22}. FDI is arriving in China for at least some reasons other than a legitimate attraction to cheap labour and a desire to gain a foothold in what may soon be the world’s largest and most lucrative consumer markets\textsuperscript{22}. One major aspect of China’s FDI that falls into a grey area of potential unfair trading practices is the widespread “round tripping” of domestic Chinese capital to avoid currency controls and gain preferential treatment regarding such elements as taxes, subsidies and access to land\textsuperscript{22}. Other aspects of FDI which are open to criticism from a fair trade perspective include the desire of foreign corporations to manufacture under far laxer environmental and health and safety regulatory regimes\textsuperscript{22}.

India suffers from several cost disadvantages compared to other countries like China, Vietnam, South Korea and Taiwan\textsuperscript{23}. Such disadvantages emanate from challenges like logistics, high cost of debt, lack of utilities like high quality power and water\textsuperscript{23}. Countries like China and Vietnam provide incentives to the industry to make domestic manufacturing competitive\textsuperscript{23}. Government of India must therefore provide both productions based incentives as well as export-oriented incentives to encourage Indian domestic manufacturing\textsuperscript{23}. It should reinstate the benefit of M-SIPS (Modified Special Incentive Package Scheme) which served as an added attraction for large companies to invest in India\textsuperscript{23}. The M-SIPS (Modified Special Incentive Package Scheme) scheme came to an end on December 31, 2018\textsuperscript{23}. The Government has not issued any communication with regard to the extension of the scheme\textsuperscript{23}. Meanwhile, India’s Merchandise Export Incentive Scheme (MEIS) has also come under World Trade Organization’s (WTO) scanner for being inconsistent with WTO rules\textsuperscript{23}. India must formulate a new WTO compliant export incentive scheme(s) to replace the MEIS\textsuperscript{23}.

In order to promote exports of mobile handsets it is important to incentivize local production and exports of mobile related components\textsuperscript{23}. In this regard, MEIS incentives for low-value components like battery, chargers should at the very least be raised to 4\% from the existing 2\% i.e. harmonizing with the MEIS incentives offered on mobile handsets exports\textsuperscript{23}.

Discussion

This section could be started with data on market share of mobile companies in India. Indian smartphone market is heavily dominated by Chinese Companies namely Xiaomi, Vivo, Realme, Oppo etc. [Table Two]. Indian mobile companies include CREO, Celkon, Iball, Intex Technologies, Karbonn Mobiles, Lava International, HCL Technologies, JIO, LYF, Micromax Informatics, Onida Electronics, Spice X, Spice Digital, Videocon, Xolo (Subsidiary of Lava International), and YU Televentures (Subsidiary of Micromax Informatics)[Website\textsuperscript{24}]. Indian mobile companies have very meager and that too diminishing market share in India [Table Three].

Next, the findings from our theoretical study could be discussed here. Both India and China are highly populous country with nearly 135 cr. app. and 140 cr. app. populations respectively. China is 2.9 times [Website\textsuperscript{4}] bigger than the size of India. If India & China had equal population density, India’s population should have been 46.55 cr. Thus China gets comparatively bigger land for industrialisation which paves the way for making it a manufacturing hub of the world. India got independence in 15\textsuperscript{th} August 1947 while People Republic of China started its journey on 21\textsuperscript{st} September 1949 under leadership of Mao Zedong. Although both countries had started their journey in modern history in almost same time, their manufacturing record depicts a complete different picture. While China produces 28.4\% of global manufacturing output and occupies first position in the world, India produces a mere 3\% of global manufacturing output and occupies sixth position in the world [Website\textsuperscript{5}]. It is to be noted here that we should not waste our valuable academic time in ascertaining the fact that who committed the main mistake in Indian economy, whether Mr. Jawaharlal Nehru or his successive Prime Ministers. This is the time for not only ascertaining earlier mistakes but also for formulating future policies & strategies. To the contrary it could be said without any hesitation that India had committed colossal mistakes in the past in formulating its manufacturing policy.
China liberalised its economy in 1978 while India had wasted a decade in political debate and liberalised its economy in 1991. The initial phase was quite sluggish in nature. Perhaps for a country like India which is basically controlled by self gouverned bureaucrats could not do better than this. After initial ups & downs India has ultimately formulated a liberal manufacturing policy which matched mostly with other developing nations.

'Make in India' is though primarily an imaginative marketing campaigning in nature but it has sufficient credentials to its credit. A vision was much required to perceive India as a manufacturing hub rather than a mere potential market. Some Indian industrial segments viz. information technology, automobile-components, pharmaceuticals etc. are globally competitive. Some Indian industrial segments like electrical machinery, textiles and leather are reasonably competitive. Some Indian industrial segments like defense manufacturing, food processing and electronics are not competitive. India’s major drawbacks from the perspective of manufacturing could be poor infrastructural facility, bureaucratic red-tapism, non-availability of skilled labour, outdated labour laws, lack of both domestic & international demand, lack of investments (both domestic & foreign), problematic land acquisition condition and unease condition of doing business in India etc.

China is one of the world’s largest exporters of capital & thus has high Outward Foreign Direct Investment (OFDI). It favours China both politically & economically. China carefully transformed its agrarian economy into industrial economy. Surplus labour from agriculture was sent to town & village enterprises and thus started reform in agricultural production. Special Economic Zones (SEZs) were formed near port in order to boost up export. Thus China was able to attract huge foreign direct investments (FDIs). Labour laws were made industry friendly, management was given adequate freedom & as a result productivity of Chinese workers increased manifold. At the same time, it is being criticised that Chinese workers are deprived of basic rights which are given to workers in other countries. Chinese Government had initially invested heavily in development of infrastructure which has given China two benefits, first, FDIs flooded in for manufacturing industries and second, FDIs came for development of infrastructure itself.

India’s population is likely to increase in the next decade in contrast to China. Thus India would be able to get comparatively younger labour force which would affect GDP of India in a positive manner. China would face the burden of keeping comparatively older population with less productivity. India would get immediate gain but in the long run China would enjoy much benefit of controlling the population. To the contrary gender gap is more prevalent in China than India. Gap of GDPs of India & China is expected to magnify at least in 2025 A.D. giving a freehand to China. China is expected to spend more money in science, technology & defense than India and thus would enjoy huge benefit in these areas. At the time when Indian Government is selling public sector enterprises through the route of much debated disinvestment schemes fourteen Chinese State enterprises occupy position in the list of Fortune 500 companies. Both India & China have the capability to compete with United States in every aspect.

Five components of price of Chinese products have attracted attention of international criticism namely export subsidies (17%), undervalued currency (11%), counterfeiting and piracy (9%), and lax environmental & worker health and safety regulatory regimes (5%). Together, these drivers account for 42% of the China price advantage.

Conclusion

The pertinent question revolves around one point, whether India would able to reverse this adverse picture of manufacturing with reference to China, particularly in the case of mobile phone manufacturing. The apparent win-win situation for China may not last long. The foundation of Chinese manufacturing glory stands on artificial lower valuation of Yuan, piracy or reverse engineering and non-compliance on worker’s health or environmental laws. India enjoys huge benefits in areas like stable democracy, rule of law, compliance of international regulations, sound education system, freedom of expression, freedom of media, quality manpower etc. India has much untapped human resources for future development. The author is not in favour of giving export incentives to mobile phone manufacturers which ultimately may lead to encouragement of inefficiency.
Recommendation

India needs to improve fragile & crumbling infrastructure, to form transparent manufacturing policy, to frame suitable amendments in labour laws, to promote more online work in Government offices for creation of investor friendly atmosphere, to arrange more investment in electricity in order to bring down cost of electricity, to bring down cost of loan at par with international standard, to improve quality of human resource, to make a close association between universities & industry, to start a consensus based political campaign for controlling population etc.

References


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**Websites**

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4. www.mylifewhere.com>country-size-comparison

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**Annexure**

**Table One: Relative Contributions of the Eight China Price Drives**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Wage</td>
<td>39.41%</td>
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<tr>
<td>Subsidies</td>
<td>16.71%</td>
</tr>
<tr>
<td>Network Clustering</td>
<td>16.02%</td>
</tr>
<tr>
<td>Undervalued Currency</td>
<td>11.44%</td>
</tr>
<tr>
<td>Counterfeiting &amp; Piracy</td>
<td>8.63%</td>
</tr>
<tr>
<td>FDI</td>
<td>3.09%</td>
</tr>
<tr>
<td>Health &amp; Safety</td>
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</tr>
<tr>
<td>Environmental</td>
<td>2.26%</td>
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<tr>
<td><strong>Total</strong></td>
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### Table Two: India Smartphone Quarterly Market Data (2019Q1 – 2020Q1) [Website:1]

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<tr>
<th>Brands</th>
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<th>2019 Q3</th>
<th>2019 Q4</th>
<th>2020 Q1</th>
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<tr>
<td>Xiaomi</td>
<td>29%</td>
<td>28%</td>
<td>26%</td>
<td>27%</td>
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<tr>
<td>Vivo</td>
<td>12%</td>
<td>11%</td>
<td>17%</td>
<td>21%</td>
<td>17%</td>
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<tr>
<td>Samsung</td>
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<td>25%</td>
<td>20%</td>
<td>18%</td>
<td>16%</td>
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<tr>
<td>Realme</td>
<td>7%</td>
<td>9%</td>
<td>16%</td>
<td>8%</td>
<td>14%</td>
</tr>
<tr>
<td>Oppo</td>
<td>7%</td>
<td>8%</td>
<td>8%</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Others</td>
<td>22%</td>
<td>19%</td>
<td>13%</td>
<td>14%</td>
<td>11%</td>
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</table>

### Table Three : Market Share of Indian Mobile Companies in India [In Percentage] [May 2019-May2020] [Website:3]

<table>
<thead>
<tr>
<th>Date</th>
<th>Micromax</th>
<th>Lava</th>
<th>Lyf</th>
<th>Intex</th>
<th>Karbonn</th>
<th>Reliance Digital</th>
<th>Yu</th>
<th>Spice</th>
<th>Xolo</th>
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<tr>
<td>2019-05</td>
<td>1.96</td>
<td>1.14</td>
<td>0.45</td>
<td>0.21</td>
<td>0.16</td>
<td>0.13</td>
<td>0.09</td>
<td>0.09</td>
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<td>2019-06</td>
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<td>0.20</td>
<td>0.15</td>
<td>0.13</td>
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<td>0.08</td>
<td>0.07</td>
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<tr>
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<td>1.00</td>
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<td>0.11</td>
<td>0.09</td>
<td>0.07</td>
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<td>0.07</td>
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<td>2019-10</td>
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<td>1.03</td>
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<td>0.10</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.06</td>
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<td>0.14</td>
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<td>0.06</td>
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<td>2019-12</td>
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<tr>
<td>2020-01</td>
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<td>0.20</td>
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<td>0.04</td>
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<td>2020-03</td>
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<td>0.17</td>
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<td>2020-04</td>
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