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A COMPARATIVE STUDY OF INDIA AND CHINA WITH REFERENCE TO GLOBAL COMPETITIVENESS INDEX (WEF)

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Abstract
This paper specified that comparative analysis of India and china on the basis of Global Competitiveness Index. The competitive indicators examined the efficiency and contribution of different sectors of national economies to national productivity and global competitiveness. This study specifies the ranks and growth rate of India and China at Global Competitiveness Index (WEF). From the analysis we found that ranks and scores of china on the basis of pillars and overall performance in 2008-2015 at Global Competitiveness Index (WEF) are better than of India. But growth rate of India is better than from china by using the research methodology. The data has been collected from the secondary sources.

Key Words: Global Competitiveness Index, Growth Rate, GDP.

Introduction

An economy can restructure itself towards its comparative advantage because it has become possible through reduction of trade barriers as it creates competitive pressures and potential for technology transfer. The concept of global competitiveness is arising as a new paradigm in today's era of economic science. Competitiveness indicators have emerged due to the concept of global competitiveness, on the basis of which countries are ranked according to selected criteria and measures of national competitive ability. The competitive indicators examine the efficiency and contribution of different sectors of national economies to national productivity and global competitiveness. There are various well-known institutions that produce international competitiveness rankings such as World banks, WEF, and International Institute for development. There are also many unpublished sources for the international competitiveness rankings that are prepared by research institutions, governments, consultants. Therefore it is important to assess the structure and pattern of comparative advantage of India and China and to what extent these two economies compete with each other in the global market. Specifically, this paper examines the structure of comparative advantage wihin India and China at the global market, individually and in a comparative framework at Global Competitiveness Index (WEF). Macroeconomic and microeconomic aspects of competitiveness are integrated in single index in Global Competitiveness Index. Strengths and weaknesses of national economies are identified by it.

There are three sub-indexes of Global Competitiveness Index that are broken down into 12 pillars. The 12 pillars contain ninety variables that persuade an economy's competitiveness.

Three sub - index is:

1. Basic requirement

- Institutions
- Infrastructure
- External environment
- Primary education and Health

2. Efficiency Enhancer

- Training and higher education
- Goods market efficiency
- Labor market efficiency
- Financial market experiences
- Technology
- Market size

3. Innovation and Sophistication

- Business sophistication
- Innovation

Rationale of Study

India and China are most populated and fastest growing countries in economies of the world. Both of these are the largest economies measured by GDP in the world next to the USA. India has more youths while china has more old age generation. Based on past trends, the structural perspective suggested that China will increase the extraordinary economic growth rate fall back to global norms after 2020 (**Babones, J. S. 2012**). And by 2020, India become the youngest country in the working age group by 64% in the world. Aging economy of China, offered the India in the growing economy add growth rate by 2 %

according to economist believe **(Shivakumar, G. 2013).** So in the present study comparative analysis of India and China in context to Global Competiveness Index (WEF) which contains 4 pillars on different aspects that represent competitiveness of the country in a comprehensive manner has been taken up.

Objectives of Study

1. To assess and compare the growth of India and China according to Global Competitiveness Index (WEF).
2. To compared the ranks of India and China in context of Global Competitiveness Index (WEF) on the basis of 4 pillars.

Review of Literature

Wei & Balasubramanyam (2015) found that China's manufacturing sector led by labour intensive manufactures had grown much faster than that of India's capital intensive manufacturing sector, both in terms of production and exports. **Sharma (2011)** examined that India was perceived as having an uncertain regulatory environment as far as its FDI policy by foreign investors. On the other hand, China had shown a constant flow in FDI inflows in economic era. China has gain competitive advantage compare to India in global economy. **Lynn et al. (2012)** found that the off shoring of technology development by multinationals was more often expansion and motivated by having a desire to be successful and expectation of Chinese and Indian entrepreneurs and managers on the basis of interviews in China. **Siraj (2011)** examined that increased integration of China and India into global economy has different effects on economic growth (the engine of growth in China was manufacturing sector whereas in India, the growth was led by the services sector. **Bhavnik et al. (2009)** investigated that both India and China have a high percentage of foreign-owned and low percentage of joint ownership of patents, but significant differences were found in the pursuance of patent development in both countries, about 30 to 35 percent of all patents developed in China were design patents – the rest being utility patents. **Singh et al. (2010)** this study reveals that various similar challenges were found in Small and medium sector enterprises in both countries, but rate of growth were different for SMEs in these countries. Indian SME's more focus on supplier, maintenance and organization culture while China focus on the relationship management and organization cultures.

Research Hypothesis

To check the growth rate & ranks of India and China, there are some hypothesis taken in this paper which are as follows:-

$\mathbf{H_{0\ (a)}}$: The rank of China is not significantly better than India. $\mathbf{H_{(B)}}$: The growth rate of China is not significantly better than India.

$\mathbf{H_{1\ (a)}}$: The rank of China is significantly better than India. $\mathbf{H_{(B)}}$: The growth rate of China is significantly better than India.

Research Methodology

The data have been collected from secondary sources such as yearly published Global Competitiveness reports by WEF (World Economic Forum) and articles and papers related to comparative analysis of India and China published in various journals and magazines were also studied. This paper considers only the relevant figures for the rank and growth rate of 4 pillars and overall over 2008-2015 of India and China. From the report Rank and scores are collected with respect to the country concerned. In this study descriptive design was used for observing and describing the behavior of a subject without influence in any way. Descriptive statistics were used to analyze and interpret the conclusion.

Data Analysis and Interpretation

Pillar1 (Institutions)

A. Rank

Table No: 1

Year	Rank of India	Rank of China	Difference in rank
2008	53	56	3
2009	54	48	-6
2010	58	49	-9
2011	69	48	-21
2012	70	50	-20
2013	72	47	-25
2014	70	47	-23
2015	60	51	-9

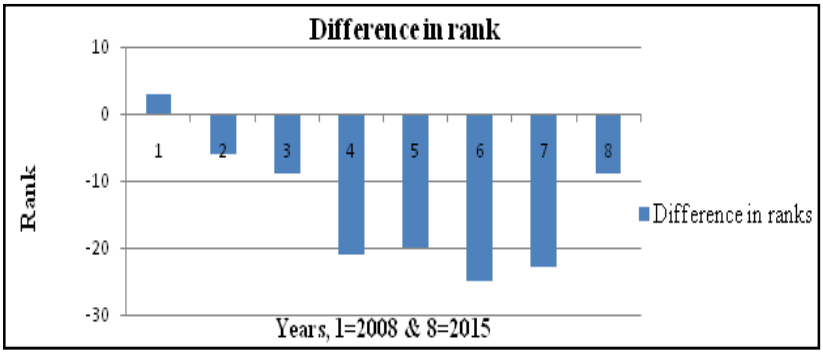

Figure 1.1

(Figure 1.1) depicts that the rank of India was higher than that of China in 2008, but thereafter rank of China started improving and India's rank started declining from 2009-2015. And minimum difference between ranks of 1st pillar (Institutions) in India and China was -25 in 2013, and maximum was 3 in 2008 which was towards positive side. This revealed that ranks of China were higher than India over 2009-2015.

B. Growth Rate

Table No: 2

Year	Growth rate of India	Growth rate of China	Difference in growth rates
2008			
2009	0.076923077	0.047619048	-0.029304029
2010	-0.047619048	0	0.047619048
2011	-0.05	-0.022727273	0.027272727
2012	0.026315789	-0.023255814	-0.049571603
2013	0	0	0
2014	-0.025641026	0	0.025641026
2015	0.078947368	-0.023809524	-0.102756892

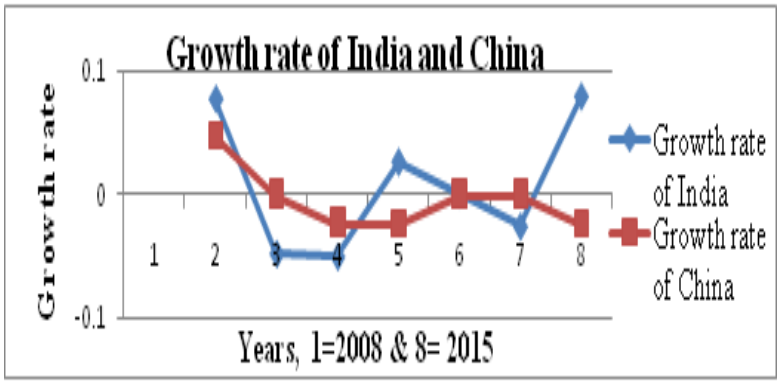

Figure 1.2

(Figure 1.3) depicts that the growth rate of pillar 1(Institutions) of China fluctuated but with less changes over 2009-2015. While in India, the growth rate showed high fluctuations over these years.

In China the growth rate of 1st pillar was very high in 2009 because of decrease in corruption level, and solving of security issues up to an extent while was low in 2015 because of low level of accountability and lack of transparency . In India the growth rate of 1st pillar was very high in 2015 because in this year quality of institutions was judged more favorably as red tapes issues were seems to be less, efficiency of government was equally improved while, growth rate was low in 2011 because public trust in politicians was being eroding as they were dissatisfied about the lack of reforms and inability of government to solve this out.

Pillar2 (Infrastructure)

A. Rank

Table No: 3

Year	Rank of India	Rank of China	Difference in ranks
2008	72	47	-25
2009	76	46	-30
2010	96	50	-46
2011	89	44	-45
2012	84	48	-36
2013	85	43	-42
2014	87	46	-41
2015	81	39	-42

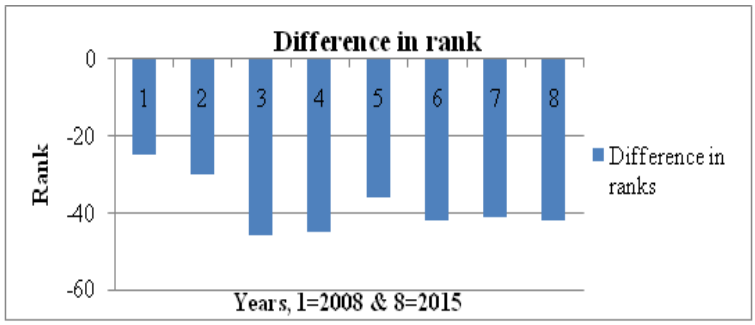

Figure 1.3

(Figure 2.1) depicts that the minimum difference between rank of 2nd pillar (Infrastructure) in India and China was -46 in 2010, and maximum was -25 in 2008. In 2015, it was -42. It means there was significant difference between ranks of 2nd pillar in both countries.

B. Growth Rate

Table No: 4

Year	Growth rate of India	Growth rate of China	Difference in growth rates
2009	0.166666667	0.023809524	-0.142857143
2010	0	0.023255814	0.023255814
2011	0.028571429	0.045454545	0.016883117
2012	0	-0.02173913	-0.02173913
2013	0.027777778	0	-0.027777778
2014	-0.027027027	0.044444444	0.071471471
2015	0.027777778	0	-0.027777778

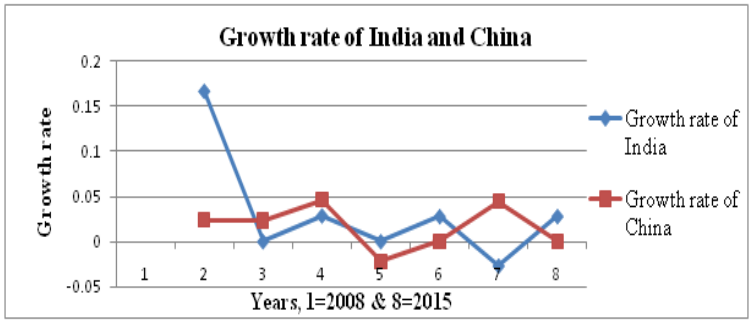

Figure 1.4

(Figure 2.3) shows that the growth rate of pillar 2 (Infrastructure) of China showed various ups and downs over 2009-2015. While in India, growth rate showed highly downward trend during 2009 -2010, after that it fluctuated with almost same frequency.

In China, the growth rate of 2nd pillar was very high in 2011, as despite of various bottlenecks, the country boasts of good transport infrastructure and connectivity, while was low in 2012 as compared to other years. In India, the growth rate of 2nd pillar was very high in 2009, while was low in 2014 because country's supply of transport and energy infrastructure were largely insufficient and poorly adapted to the needs of the economy.

Pillar3 (Macroeconomic stability)

A. Rank

Table No: 5

Year	Rank of India	Rank of China	Difference in rank
2008	109	11	-98
2009	96	8	-88
2010	73	4	-69
2011	105	10	-95
2012	99	11	-88
2013	110	10	-100
2014	101	10	-91
2015	91	8	-83

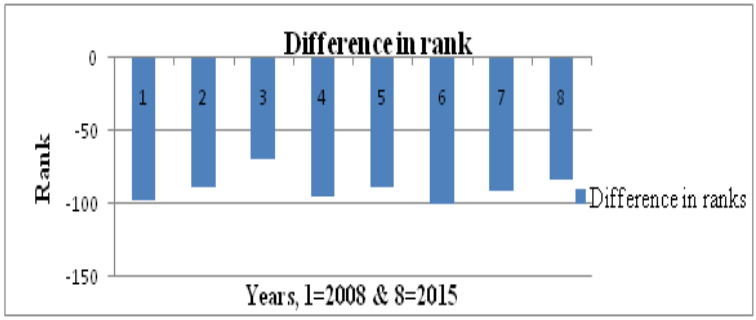

Figure 1.5

(Figure 3.1) depicts that the maximum difference between rank of 3rd pillar (Macroeconomic stability) in India and China was 100 in 2013, and minimum was 69 in 2010. In 2015, it was 83. It means although there was huge difference between ranks of 2nd pillar in both countries, but now it is decreasing.

B. Growth Rate

Table No: 6

Year	Growth rate of India	Growth rate of China	Difference in growth rate
2008			
2009	-0.142857143	0	0.142857143
2010	0.071428571	0.033898305	-0.037530266
2011	-0.044444444	0.016393443	0.060837887
2012	0	0	0
2013	-0.046511628	0.016129032	0.06264066
2014	0.024390244	0.015873016	-0.008517228
2015	0.047619048	0.015625	-0.031994048

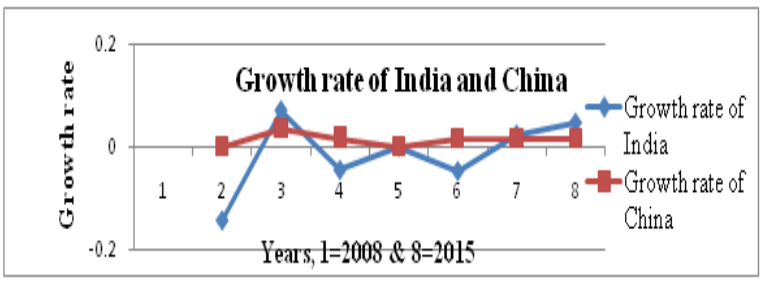

Figure 1.6

(Figure 3.3) presents that in China; growth rate of 3rd pillar (Macroeconomic stability) was stable, while was fluctuating in India over 2009-2015.

In China growth rate of 3rd pillar (Macroeconomic stability) was high in 2010, because inflation was reduced and budget deficit has been improved, while was stable in 2009 & 2012 but low as compared to other year's growth rates. In India, higher growth rate of this pillar was in 2010 same as in China but was low in 2009 because of large and repeated public deficits, and high debt to GDP ratio.

Pillar4 (Health and primary education)

A. Rank

Table No: 7

Year	Rank of India	Rank of China	Difference in rank
2008	100	50	-50
2009	101	45	-56
2010	104	37	-67
2011	101	32	-69
2012	101	35	-66
2013	102	40	-62
2014	98	46	-52
2015	84	44	-40

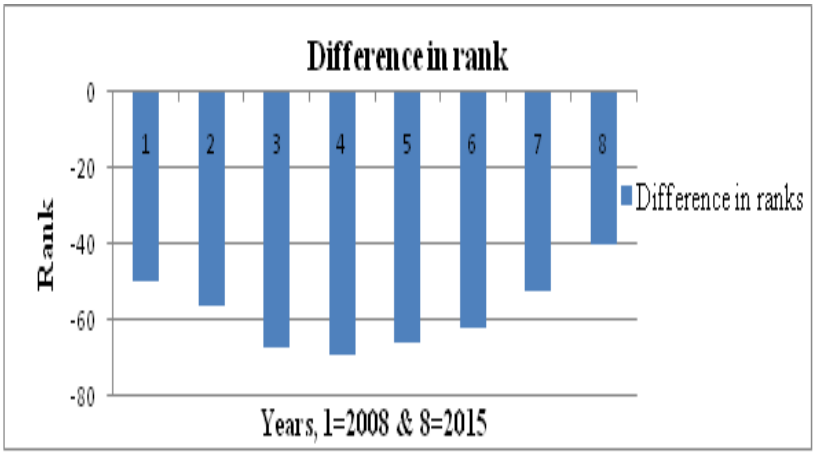

Figure 1.7

(Figure 4.1) depicts that the minimum difference between rank of 4th pillar (Health and primary education) in India and China was -69 in 2011, and maximum was -40 in 2015. It reveals China's ranking over this pillar was higher than that of India.

B. Growth Rate

Table No: 8

Year	Growth rate of India	Growth rate of China	Difference in growth rate
2008			
2009	-0.094339623	0	0.094339623
2010	0.083333333	0.087719298	0.004385965
2011	0.019230769	0	-0.019230769
2012	0	-0.016129032	-0.016129032
2013	0	0	0
2014	0.018867925	0	-0.018867925
2015	0.018518519	0	-0.018518519

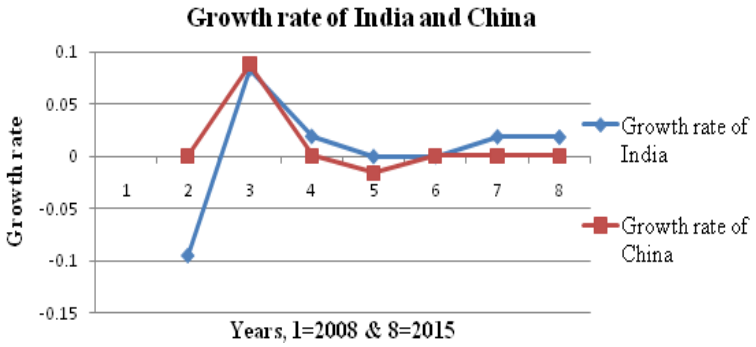

Figure1.8

(Figure 4.3) depicts that the growth rate of 4th pillar (Health and primary education) in both China and India followed almost same trend between 2009-2015 i.e. up and down than approximately stable.

In China, growth rate of this pillar was high in 2010 but was low in 2012 because of lesser extent to higher education and disconnection between educational content and business needs. In India the growth rate was high in 2010 same as in China, but was low in 2009 as compared to other years because of high infant mortality rate, malnutrition issues and poor quality of education.

Findings

- There was a significant difference between India and China in ranks at Global Competitive Index (WEF) over 2008-2015.
- The overall growth rate of China at Global Competitiveness Index was fluctuating over 2008-2015, as it increased firstly, then became stable, after that decreased, than increased again and at last decreased in 2015.
- And overall growth rate of India at Global Competitiveness Index was stable till 2013, than decreased, after that increased in 2015.

Conclusion

The study has shown that ranks and scores of China on the basis of all pillars and overall performance in 2008-2015 at Global Competitiveness Index (WEF) are better than of India. But the growth rate of India and China is almost similar, there is no significant difference between two. In fact, growth rate of India is better than China. Recently, India has started improving its performance at Global Competitiveness Index (WEF) as India has moved up 16 positions to 55th place for 2015-2016. While China is facing various challenges in transitioning its economy as it is holding stable position at 28th place same as in 2014 at Global Competitiveness Index (WEF). There appears to be further scope for a rise in growth of both countries through improvements in institutions and policies, but these are more uncertain.

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