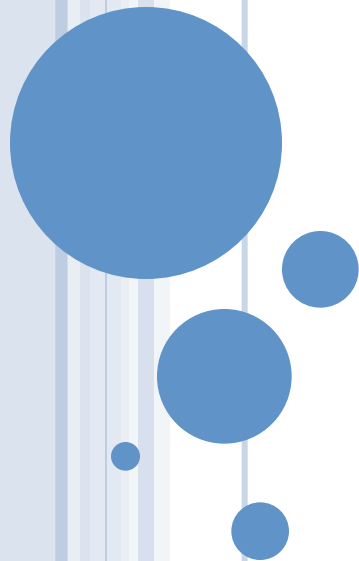


INNOVATION IN HIGHER EDUCATION

Prof. Sheikh Javid Ahmed
Cluster University Srinagar
(J&K)



EDUCATION : India's Innovation Agenda ?

Former President of India, Mr. Pranab Mukerjee, remarked :

“India cannot aspire to become a sustainable superpower without becoming a knowledge superpower. India cannot fuel its imagination of becoming an industrial power-house, if it is dependent on borrowed ideas of innovation and entrepreneurship. Within the next decade it needs to produce educated/skilled people and new ideas.”

Campuses as Incubation Centres :

Scientific ideas that led to the invention of the simple electronic transistor, optic fiber, or computing, in turn, led to the development of entire industries of electronics, telecom or computers respectively; all of these innovations were incubated on the campuses of University of Pennsylvania, MIT and University of Illinois, respectively.

The Global Competitiveness Index 2017–2018 Rankings

Covering 137 economies, the Global Competitiveness Index 2017–2018 measures national competitiveness—defined as the set of institutions, policies and factors that determine the level of productivity.

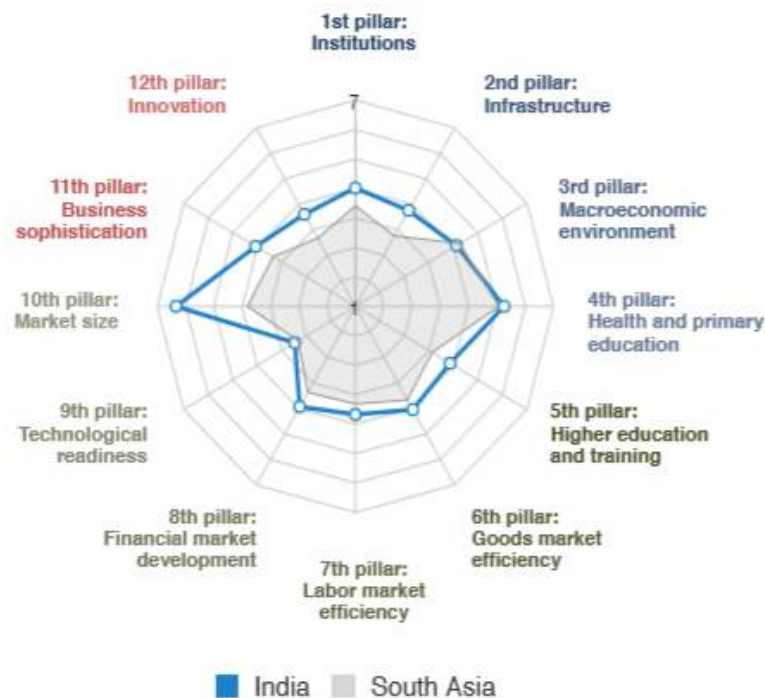
	Economy	Score ¹	Prev. ²	Trend ³					
					20	Belgium	5.23	17	
1	Switzerland	5.86	1		21	Australia	5.19	22	
2	United States	5.85	3		22	France	5.18	21	
3	Singapore	5.71	2		23	Malaysia	5.17	25	
4	Netherlands	5.66	4		24	Ireland	5.16	23	
5	Germany	5.65	5		25	Qatar	5.11	18	
6	Hong Kong SAR	5.53	9		26	Korea, Rep.	5.07	26	
7	Sweden	5.52	6		27	China	5.00	28	
8	United Kingdom	5.51	7		28	Iceland	4.99	27	
9	Japan	5.49	8		29	Estonia	4.85	30	
10	Finland	5.49	10		30	Saudi Arabia	4.83	29	
11	Norway	5.40	11		31	Czech Republic	4.77	31	
12	Denmark	5.39	12		32	Thailand	4.72	34	
13	New Zealand	5.37	13		33	Chile	4.71	33	
14	Canada	5.35	15		34	Spain	4.70	32	
15	Taiwan, China	5.33	14		35	Azerbaijan	4.69	37	
16	Israel	5.31	24		36	Indonesia	4.68	41	
17	United Arab Emirates	5.30	16		37	Malta	4.65	40	
18	Austria	5.25	19		38	Russian Federation	4.64	43	
19	Luxembourg	5.23	20		39	Poland	4.59	36	
					40	India	4.59	39	

Key indicators, 2016

Source: International Monetary Fund; World Economic Outlook Database (April 2017)

Population millions	1,309.3	GDP per capita US\$	1,723.3
GDP US\$ billions	2,256.4	GDP (PPP) % world GDP	7.23

Index Component	Rank/137	Score (1-7)	Trend	Distance from best	Edition	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Global Competitiveness Index	40	4.6			Rank	59 / 144	60 / 148	71 / 144	55 / 140	39 / 138	40 / 137
Subindex A: Basic requirements	63	4.7			Score	4.3	4.3	4.2	4.3	4.5	4.6
1st pillar: Institutions	39	4.4									
2nd pillar: Infrastructure	66	4.2									
3rd pillar: Macroeconomic environment	80	4.5									
4th pillar: Health and primary education	91	5.5									
Subindex B: Efficiency enhancers	42	4.5									
5th pillar: Higher education and training	75	4.3									
6th pillar: Goods market efficiency	56	4.5									
7th pillar: Labor market efficiency	75	4.1									
8th pillar: Financial market development	42	4.4									
9th pillar: Technological readiness	107	3.1									
10th pillar: Market size	3	6.4									
Subindex C: Innovation and sophistication factors	30	4.3									
11th pillar: Business sophistication	39	4.5									
12th pillar: Innovation	29	4.1									



The Global Competitiveness Index 2017-2018 edition

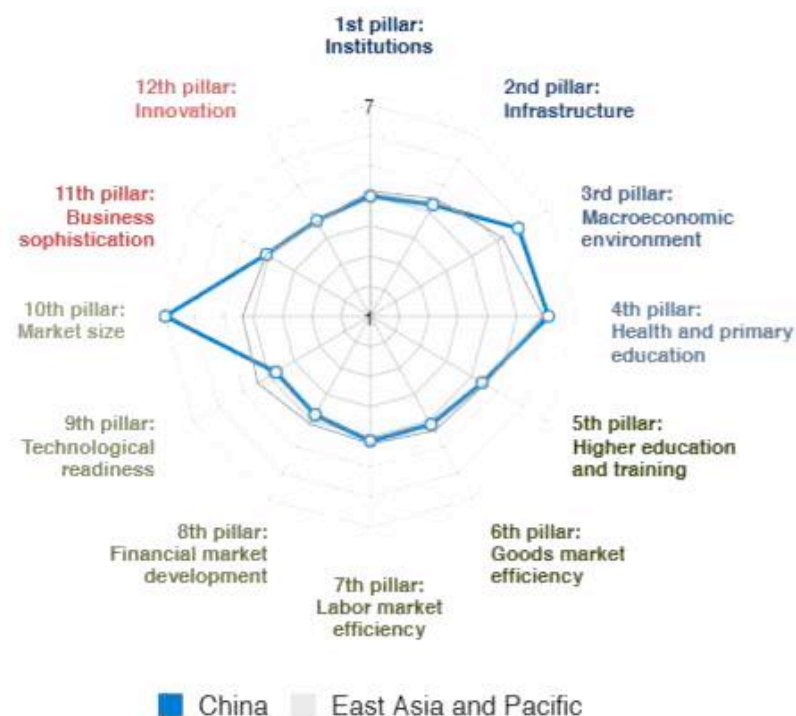
Key indicators, 2016

Source: International Monetary Fund; World Economic Outlook Database (April 2017)

Population millions	1,382.7	GDP per capita US\$	8,113.3
GDP US\$ billions	11,218.3	GDP (PPP) % world GDP	17.76

Performance overview

Index Component	Rank/137	Score (1-7)	Trend	Distance from best	Edition	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Global Competitiveness Index	27	5.0			Rank	29 / 144	29 / 148	28 / 144	28 / 140	28 / 138	27 / 137
Subindex A: Basic requirements	31	5.3			Score	4.8	4.8	4.9	4.9	5.0	5.0
1st pillar: Institutions	41	4.4									
2nd pillar: Infrastructure	46	4.7									
3rd pillar: Macroeconomic environment	17	6.0									
4th pillar: Health and primary education	40	6.2									
Subindex B: Efficiency enhancers	28	4.9									
5th pillar: Higher education and training	47	4.8									
6th pillar: Goods market efficiency	46	4.5									
7th pillar: Labor market efficiency	38	4.5									
8th pillar: Financial market development	48	4.2									
9th pillar: Technological readiness	73	4.2									
10th pillar: Market size	1	7.0									
Subindex C: Innovation and sophistication factors	29	4.3									
11th pillar: Business sophistication	33	4.5									
12th pillar: Innovation	28	4.1									



The Global Competitiveness Index 2017-2018 edition

Key indicators, 2016

Source: International Monetary Fund; World Economic Outlook Database (April 2017)

Population millions 323.3

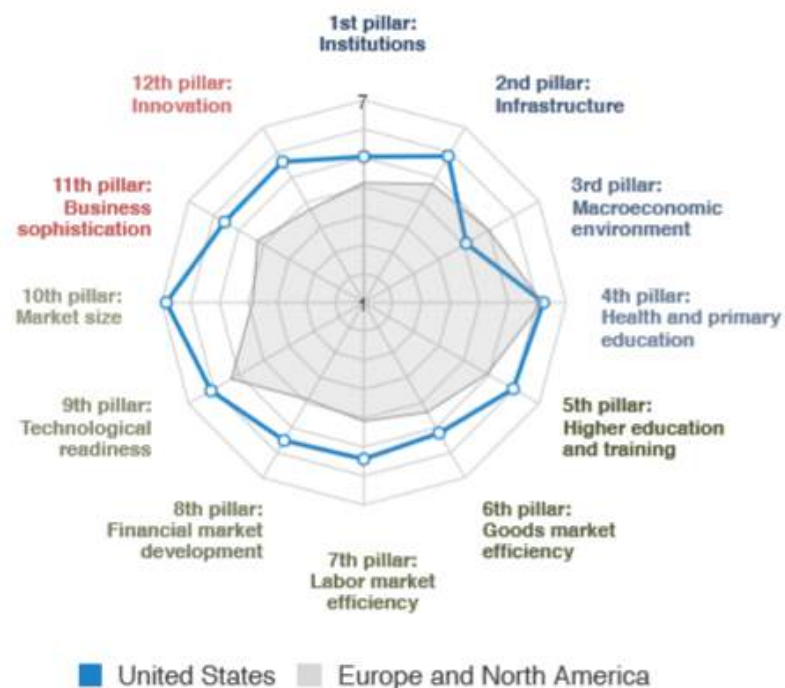
GDP per capita US\$ 57,436.4

GDP US\$ billions 18,569.1

GDP (PPP) % world GDP 15.49

Performance overview

Index Component	Rank/137	Score (1-7)	Trend	Distance from best	Edition	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Global Competitiveness Index	2	5.9			Rank	7 / 144	5 / 148	3 / 144	3 / 140	3 / 138	2 / 137
Subindex A: Basic requirements	25	5.5			Score	5.5	5.5	5.5	5.6	5.7	5.9
1st pillar: Institutions	20	5.3									
2nd pillar: Infrastructure	9	6.0									
3rd pillar: Macroeconomic environment	83	4.5									
4th pillar: Health and primary education	29	6.3									
Subindex B: Efficiency enhancers	1	6.0									
5th pillar: Higher education and training	3	6.1									
6th pillar: Goods market efficiency	7	5.5									
7th pillar: Labor market efficiency	3	5.6									
8th pillar: Financial market development	2	5.7									
9th pillar: Technological readiness	6	6.2									
10th pillar: Market size	2	6.9									
Subindex C: Innovation and sophistication factors	2	5.8									
11th pillar: Business sophistication	2	5.8									
12th pillar: Innovation	2	5.8									



NATURE INDEX (JULY 1, 2017 – JUNE 30, 2018)

Total Publications

	AC	FC
USA	26138	19142.65
China	13129	9631.82
.....		
India	1422	961.12

Nature Communications

USA	2415	1559.73
China	987	573.95
.....		
India	60	22.43

AC Article Count FC Fractional Count

REFORMS

1. Examination/Evaluation system needs to be completely overhauled

- Problem/applied based questions;
- More emphasis on assignments, project work and field study.

2. Research at UG/PG level

- Each undergraduate/postgraduate student should be assigned research group for mentorship.

3. Innovation in Teaching

Each teacher should prepare a set of 100-500 **original** problems/ questions/ assignments on the subject at the beginning of each academic year.

