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Factors of Competitiveness: A Roadmap of Growth at National & Regional Level

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ABSTRACT

This paper aims to redefine the term competitiveness to enhance its usefulness for the evaluation of country performance and for economic growth. The researcher attempts to establish a definition that is adequate if economic policy strives for a new growth path that is more dynamic, socially inclusive and ecologically sustainable. In the first part of the paper, we examine the evolution of the concept from a focus on "inputs" at the firm level (price or cost competitiveness) to economic structure and capabilities at the country level and finally to "outcome" competitiveness, where outcomes are defined in a broad sense. Competitiveness can be defined as the "ability of a country or a region, to share more than expected in terms of economic goals for example say GDP". In the second part the researcher reviews the concept of the literature with focus from national to regional competitiveness In the third part of the paper, the performance of the country India is assessed along the dimensions of growth and development which includes price competitiveness and then proceed to economic structure and countries' capabilities regarding innovation, education, the social infrastructure.

The outcomes of competitiveness in terms of economic, social and ecological outcomes are discussed on the basis of indicators that describe these different aspects of competitiveness. In this study, we redefine the term competitiveness for the purpose of monitoring the process of transition to a more dynamic, socially inclusive and ecologically ambitious growth path.

Keywords: Competitiveness, Economic Growth, Infrastructure, Knowledge-Based Economy

Introducing Competitiveness

Over the last decade or so, the term competitiveness has been widely used and sometimes abused. In essence the questions and issues that are the heart of the concept of competitiveness are basically those that policy makers and economic theorists have been trying to address for hundreds of years: a better understanding of the issues that are central to improving economic well-being and to the distribution of wealth. India has become the most competitive and dynamic knowledge-based economy in the world over the decade, capable of sustainable economic growth with more and better jobs and greater social cohesion. Within this context, the real challenge here is to seek a more proper understanding of the term regional competitiveness and to gain insight into the driving factors behind it.

Before delving into regional competitiveness, it is important first to introduce the broader notion of competitiveness, as it has been used both at the micro-economic and the macro-economic level.

At the firm, or micro-economic, level there exists a reasonably clear and straightforward understanding of the notion of competitiveness based on the capacity of firms to compete, to grow, and to be profitable. At this level, competitiveness resides in the ability of firms to consistently and profitably produce products that meet the requirements of an open market in terms of price, quality, etc. Any firm must meet these requirements if it is to remain in business, and to gain market share and become market leader a firm needs to be better than its competitor and this advantage will make its position intact and reverse to this an uncompetitive firms will need 'artificial' support or protection to sustain.

Despite the fact that improving a nation's or region's competitiveness is frequently presented as a central goal of economic policy, arguments abound as to precisely what this means and whether it is even sensible to talk of competitiveness at a macro-economic level at all. The lack of a commonly accepted definition is in itself one source of opposition to the concept of macro-economic competitiveness; essentially the argument is that it is dangerous to base economic policy around such an amorphous concept which admits of diverse interpretations and understanding.

A more stringent line of criticism argues that the concept national competitiveness is essentially 'meaningless'. Krugman (1994), who goes so far as to describe the concept of national competitiveness as a dangerous obsession, raises three key points of opposition:

1 It is ambiguous and inaccurate to make an analogy between a nation and a firm; for example, whereas an unsuccessful firm will ultimately go out of business there is no equivalent "bottom-line" for a nation.

2 The firms need to compete for market share and one firm's success depends on others too as it will be gained only on the expense of another's, the success of one country or economic region creates rather than destroys opportunities for each other and it is evident that trade between nations is not to be a 'zero-sum game'.

3 The understanding of the word competitiveness in another way is related to productivity; growth in national living standards is essentially determined by the growth rate of productivity.

By and large, these points are well recognized by proponents of the concept of macro-economic competitiveness. Within what may be termed the 'consensus view' of macro-economic competitiveness there is a general recognition that growth in economic performance and productivity is one of the central concerns of competitiveness.

"A nation's competitiveness is the degree to which it can, under free and fair market conditions, produce goods and services that meet the test of international markets while simultaneously expanding the real incomes of its citizens. Competitiveness at the national level is based on superior productivity performance and the economy's ability to shift output to high productivity activities which in turn can generate high levels of real wages. Competitiveness is associated with rising living standards, expanding employment opportunities, and the ability of a nation to maintain its international obligations. It is not just a measure of the nation's ability to sell abroad, and to maintain trade equilibrium."

President's Commission report on Competitiveness (1984) defines Competitiveness as the degree to which, under open market conditions, a country can produce goods and services that meet the test of foreign competition while simultaneously maintaining and expanding domestic real income" OECD Programme on technology and the Economy (1992) "An economy is competitive if its population can enjoy high and rising standards of living and high employment on a sustainable basis. More precisely, the level of economic activity should not cause an unsustainable external balance of the economy nor should it compromise the welfare of future generations." European Competitiveness Report (2000).

The following elements of macro-economic competitiveness can be consequently derived:

1 A successful (economic) performance, typically judged in terms of rising living standards or real incomes.

2 Open market conditions for the goods and services produced by the nation in question (i.e. there is actual or potential competition from foreign producers).

3 Short-term 'competitiveness' should not create imbalances that result in a successful performance becoming unsustainable.

At this stage, it is important to shift attention to regional competitiveness, a term which has been used more rarely, and that has been defined more poorly. As a starting point, a definition for regional competitiveness comes from the Sixth Periodical Report on the Regions: "Competitiveness is defined as the ability to produce goods and services which meet the test of international markets, while at the same time maintaining high and sustainable levels of income or, more generally, the ability of (regions) to generate, while being exposed to external competition, relatively high income and employment levels'."

"In other words, for a region to be competitive, it is important to ensure both quality and quantity of jobs." The existence of firms in a region that are able to consistently and profitably produce products that meet the requirements of an open market in terms of price, quality, etc. confirms the underlying assumption is that the interests of firms and the region in which they reside are always parallel. This notion is difficult to sustain, as firms will strive for productivity and profits, while regional competitiveness also needs to include employment levels, as put forward in the definition from the Sixth Periodic Report (1999).

The European Commission defines the concept of regional competitiveness as "to capture the notion that, despite the fact that there are strongly competitive and uncompetitive firms in every region, there are common features within a region which affect the competitiveness of all firms located there". Furthermore, though productivity is clearly important, and improving the understanding of what factors raise productivity is an essential input for developing strategies for regional competitiveness, the focus on productivity should not obscure the issue of translating productivity gains into higher wages and profits and, in turn, the analysis of institutional arrangements and market structures.

An alternative definition of regional competitiveness that reflects these notions is: "A regional economy's ability to optimize its indigenous assets in order to compete and prosper in national and global markets and to adapt to change in these markets".

Factors of Competitiveness

The literature review suggested two aspects:

A. National competitiveness

B. Regional competitiveness.

The various sources like IMD's World Competitiveness Yearbook (WCYB), The World Economic Forum's Global Competitiveness Report (WEGCR), and OECD's New Economy Report are studied to measure sources of national competitiveness.

WCYB recognizes that "competitiveness needs to balance economic imperatives with the social requirements of a nation as they result from history, value systems and tradition". The study places emphasis on GDP per capita as an indicator of overall competitiveness but also recognizes standards of living as a key indicator. The WYCB ranks and analyses the ability of nations to provide an environment in which enterprises can compete. The yearbook identifies 47 macro and micro-economic factors, sub-divided by 8 input factors, that it contends are the most important for a competitive environment. It also identifies the 20 strongest factors for a competitive environment in each country.

WEGCR discusses the complexity of measuring national competitiveness on the basis of:

(a) The Current Competitiveness Index "uses micro-economic indicators to measure the set of institutions, market structures, and economic policies supportive of high current levels of prosperity;

(b) The Growth Competitiveness Index focuses on global competitiveness as the set of institutions and economic policies supportive of high rates of growth in the medium term.

OECD's New Economy Report focused on the factors that primarily lead to greater labor productivity and labor utilization. Using significant comparative and regression analysis, across a wide set of primarily micro- economic indicators, the report identified the following factors, sub-divided into five types, as having a strong causal relationship with economic competitiveness:

a) ICT usage : Increasing the use of ICT; increasing competition in telecoms to enhance uptake of ICT; Building confidence in the use of ICT by business and consumers; Making e-government a priority.

b) Innovation and Technology Diffusion: Increasing competitive funding and focus in public research; increasing effective IP regimes; promoting interaction between universities, firms and public laboratories.

c) Human Capital : Investing in high quality early education and child care; Raising completion of basic and vocational education; Increasing links between higher education and the labor market; Wider vocational training opportunities.

d) Entrepreneurship : Promoting access to finance; Facilitating firm entry and exit; encouraging an entrepreneurial spirit in society.

e) At the macro-level the report recommended: Macro-economic stability; reduced barriers to competition; financial systems more supportive of risk; Mobilization of labor resources.

Factors like ICT, human capital, innovation and entrepreneurship affect the growth process, alongside fundamental policies to control inflation and instill competition, while controlling public finances are likely to bear the most fruit over the longer term".

TABLE 1 : NATIONAL FACTORS OF COMPETITIVENESS

Infrastructure	Human Resources	Business Environment
Basic Infrastructure	Labor Force	Entrepreneurial Culture
Transportation	Productivity And Flexibility	Low Barriers To Entry
Logistics	Management Skills	Risk Taking Culture
Communication Network	Internationalized Manpower	Internationalization
Educational Infrastructure	Levels of Professionalism	Global Trade
Medical Infrastructure	Levels of Efficiency	Foreign Direct Investment
Standard of Living	High Skilled Workforce	Cross Culture
Societal levels	Scientists And Engineers	Technology Up-Gradation
Entrepreneurship	Symbolic Analysts	Management Innovation
Innovation & Invention	High Literacy Rate	Intellectual Property Rights
	Skill Oriented Education	Research &Development
	Vocational Training	Knowledge Sharing Corporate linkages
	Business & Education	Capital Availability

Regional Competitiveness

The regions are at differing stages of development and have differing socio-economic structures although they can be grouped into types. Therefore, the relative importance of the factors of competitiveness will vary between types of regions. The over-arching factors that are advocated will have greatest bearing on regional competitiveness are:

- Employment levels and the productivity levels of those in employment;
- Employment concentrations in sectors (productivity is highest in business and financial services; in agriculture, productivity is only half the average of other sectors);
- Demographic trends such as outward migration and an aging population have a negative effect on a region's competitiveness (and the inverse is also true);
- Investment as measured by gross fixed capital formation over time (the accumulated stock of capital);
- Investment in knowledge economy assets (R&D, education and ICT, telecoms, internet access are relatively more important than investment in fixed investments, especially in advanced regions);
- Infrastructure endowment (although the report notes that "Every region has its own specific needs in terms of both overall scale of transport

networks and particular modes of transport. A minimum level of transport infrastructure is necessary for regional competitiveness, but this is not necessarily the same level in all regions");

- Level and nature of education (for instance share of population with degrees and with IT proficiencies);
- Innovation and RTD (for instance RTD expenditure and patent applications).

skill development and employment generation, asset monetization and resource mobilization for infrastructure development. The top five attractive factors of India's economy for business are - a skilled workforce, cost competitiveness, dynamism of the economy, high educational level and open and positive attitudes.

- India's Performance on four Parameters in the current year
- Economic performance: It has improved from 37th in 2021 to 28th in 2022.
- Government efficiency: It has improved from 46th in 2021 to 45th in 2022.
- Business efficiency: It saw a huge improvement from 32nd rank in 2021 to 23rd in 2022.
- Infrastructure: It on the other hand, saw no change at 49.

TABLE 2 :REGIONAL FACTORS OF COMPETITIVENESS

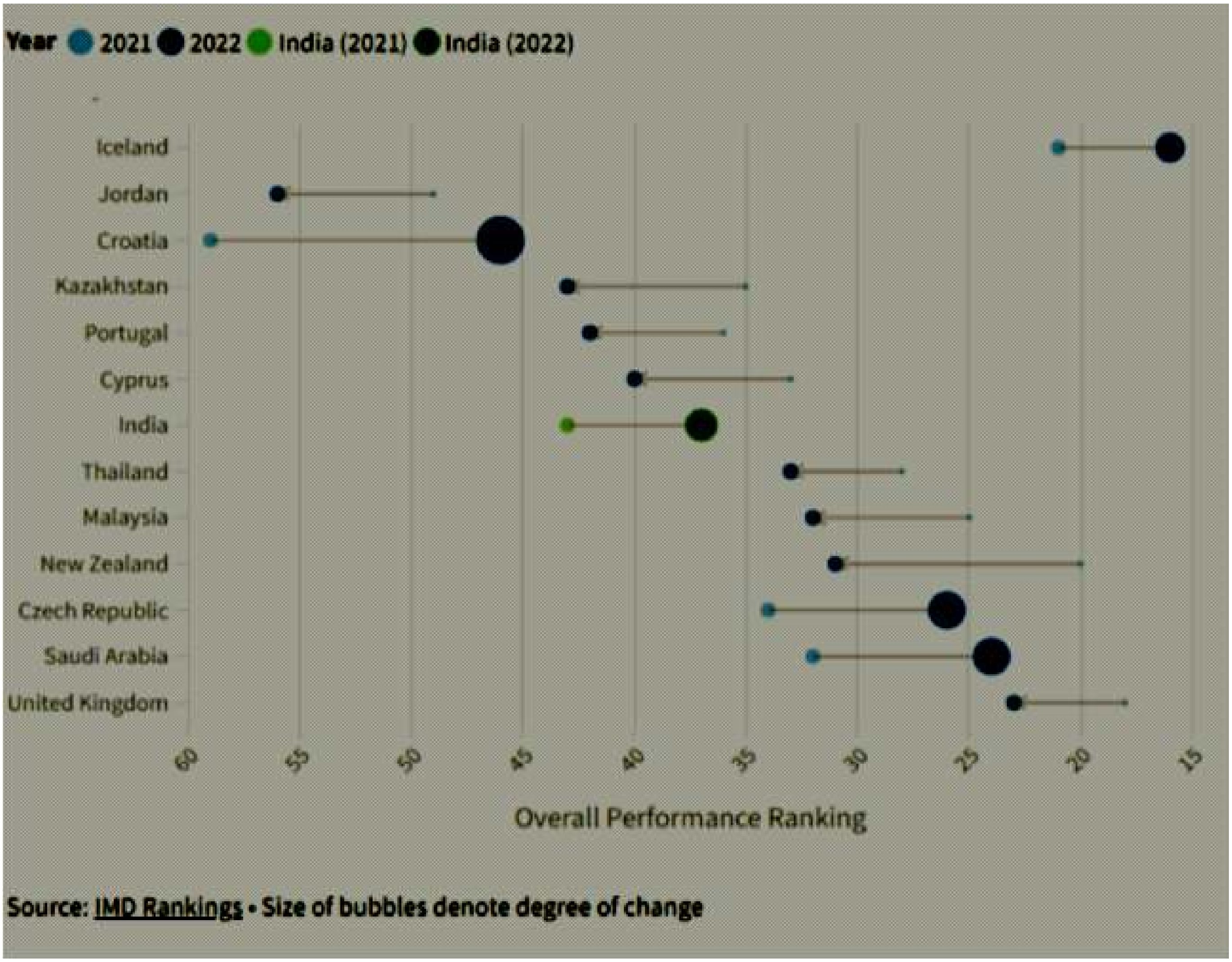
Infrastructure	Human Resource Management	Productive Environment
• Basic Infrastructure	• Demographic Trends	• Entrepreneurial Culture
• Social Infrastructure	• Skilled Manpower	• Sectoral Development
• Technological	• Workforce Diversity	• Regional Balance
• Infrastructure	• Cultural Diversity	• Employment Generation
• Knowledge Infrastructure	• Knowledge Management	• Foreign Direct Investment
• Quality of Life	• Training & Development	• Technological Innovation
• Globalization		• Market Research
		• Governance

India's Competitiveness

The IMD World Competitiveness Yearbook (WCY), first published in 1989, is a comprehensive annual report and worldwide reference point on the competitiveness of countries. It analyzes and ranks countries according to how they manage their competencies to achieve long-term value creation. The prosperity and competitiveness of countries by examining the Four factors Economic performance, Government efficiency, Business efficiency and Infrastructure identified by incorporating 334 competitiveness criteria. The challenges that India faces include managing trade disruptions and energy security, maintaining high GDP growth post the pandemic,

India has witnessed the sharpest rise among the Asian economies, with a six-position jump from 43rd to 37th rank on the annual World Competitiveness Index compiled by the Institute for Management Development, largely due to gains in economic performance.

Figure 1 : India's Performance Ranking



The domestic economy has experienced a stratospheric rise from 30th to 9th position in a year, Institute for Management Development (IMD) noted. The labour market, a key sub-factor in the business efficiency parameter, moved up from 15th to 6th, while management practices and business attitudes and values also made major leaps. India is also a driving force in the global movement to fight climate change and Mr. Modi's pledge of net-zero by 2070 at the COP26 summit in November 2021, sits in harmony with its strength in environment-related technologies in the ranking.

Reasons for India's Good Performance:

- Major improvements in the context of retrospective taxes in 2021
- Re-regulation of a number of sectors, including drones, space and geo-spatial mapping.
- Significant improvement in the competitiveness of the Indian economy
- India as a driving force in the global movement to fight climate change and India's pledge of net-zero by 2070at the COP26 summit also sits in harmony with its strength in environment-related technologies in the ranking.

- Increasing Manufacturing Capacity: India has made appreciable efforts to ensure resilience in manufacturing capacity such as via Atmanirbhar Bharat and Make in India initiatives which are aimed at domestic supply chains and heavy investment in manufacturing hubs.
- The government has introduced the Production-Linked Incentive (PLI) Schemein various sectors for enhancing India's manufacturing capabilities and exports.
- Technological Advancement: To facilitate technological advancement for increasing competitiveness, India's Department of Telecom (DoT) has constituted six task forces on 6G technology.
- The Ministry of External Affairs, through its New, Emerging and Strategic Technologies (NEST) division is also ensuring India's active participation in international forums on technology governance. It acts as the nodal division within the ministry for issues pertaining to new and emerging technologies and assists in collaboration with foreign partners in the field of technology

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