EGM on Innovation and Technology for achieving the 2030 Development Agenda



The challenges On the path towards an innovative environment

By Nicolas NAHAS

Definition

Innovation is the multi-stage process, whereby organizations **challenge themselves** to **transform ideas** into improved

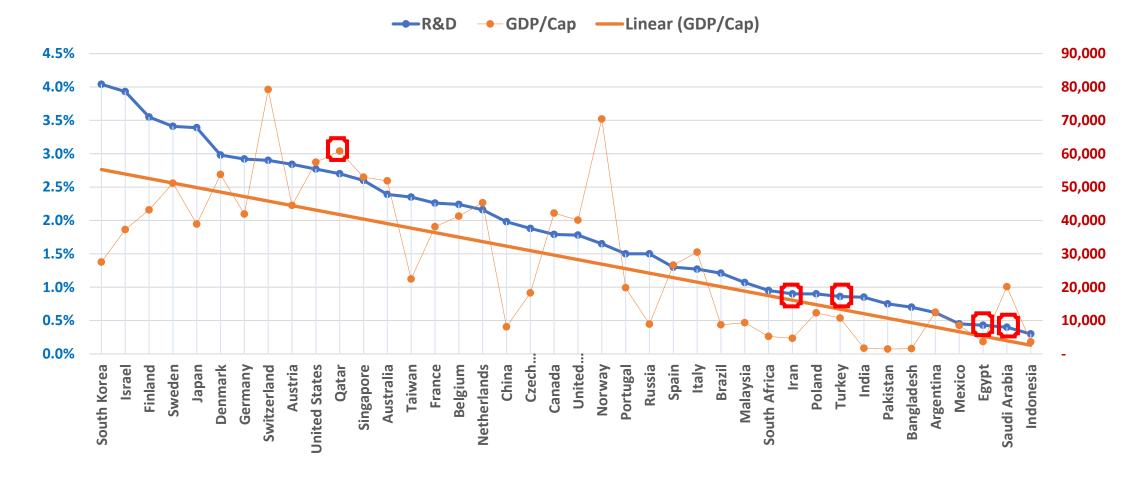
products, service or processes,

in order to

- advance,
- compete
- differentiate

successfully in their marketplace.

R&D v/s GDP per Capita

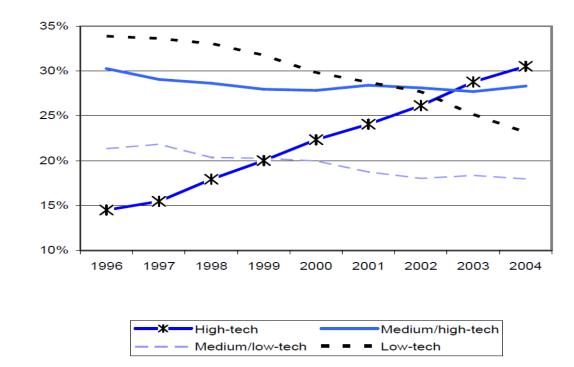


Innovation the Path for Growth

- Innovative effort is on the rise as a share of economic activity.
- The importance of <u>innovation</u> has been <u>reinforced</u> both by **globalization** and by rapid **advances** in **new technologies.**
- A <u>society's</u> ability to <u>increase</u> its <u>wealth and welfare</u>, critically hinges on its **potential to innovate**, develop, exploit and diffuse knowledge, thereby influencing growth.
- Since the Industrial Revolution, much of the <u>rise in living standards</u> is due to **innovation**.

BRIC's Trade Pattern

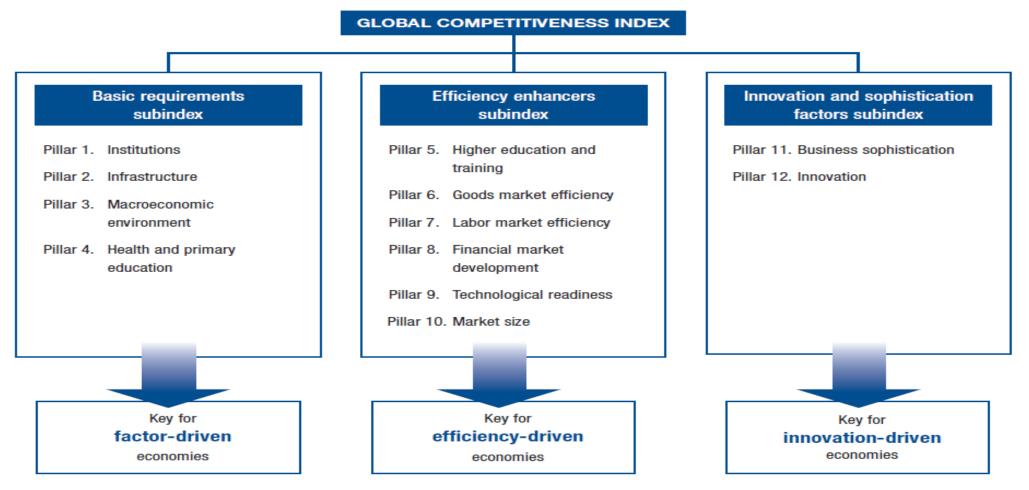
The changing structure of BRIC's¹ manufacturing trade by technological intensity



1. BRIC: Brazil, Russia, India and China. *Source:* OECD, Bilateral Trade Database.

WEF – GCI Index





See Appendix A for the detailed structure of the GCI.

Growth Type Economies

'factor'-driven economies, where countries compete primarily on the use of **unskilled** labor and natural resources and companies compete on the basis of price as they buy and sell basic products or commodities.

'efficiency'-driven economies, where growth is based on the development of more efficient production processes and increased product quality.

'**innovation**'-**driven economies**, where companies compete by producing and delivering new and different products and services by using the most **sophisticated** processes.

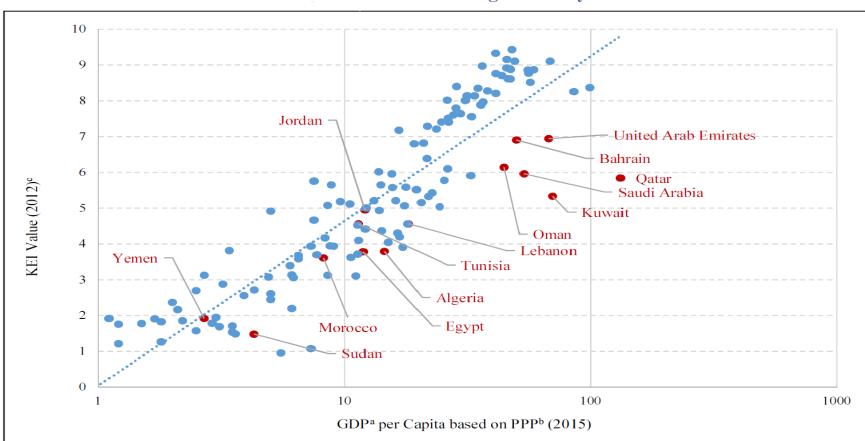
Arab Countries Rating

The World Economic Forum considers*

- Bahrain, Qatar and the United Arab Emirates as stage 3 economies, i.e. **innovation driven**;
- Egypt, Jordan, Morocco and Tunisia as stage 2 economies, i.e. efficiency driven;
- Lebanon, Oman and Saudi Arabia as in transition from stage 2 to 3.
- Mauritania and Yemen are in stage 1, i.e. factor driven;
- Algeria and Kuwait are transitioning from stage 1 to 2.

^{*} ESCWA: The Innovation Landscape in Arab Countries A Critical Analysis

Arab Countries Rating



The knowledge economy

Sources: World Bank, 2012; World Bank, 2017.

The Economics of Innovation

- Economic growth higher nation output
- Higher output

higher added value,

higher productivity, _____ Innovation higher competitivity

Innovation pillars:

Culture evolution Government policy, fund allocation

human education and skill

Policies Needed

UNCTAD has noted the **"modest performance"** of the national innovation systems in the region,

Thus, national development <u>policies in Arab countries</u> should include **innovation policies** that stress the following key aspects:

- It is important to consider <u>global knowledge</u> and <u>technology</u> in national competencies and when drawing inspiration from local culture and identity
- the importance of political leadership that inspires all economic sectors;

UNCTAD: UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Cultural Evolution

It is important to consider <u>global knowledge</u> and <u>technology</u> in **national competencies** and when **drawing inspiration** from **local culture** and identity that we build on:

- Human right and dignity
- Non-oppressive environment
- Freedom of mind
- Value driven v/s Rigid model, society
- Challenging culture v/s Resilience culture

Government Policy - 1

- **Political leadership** is needed to inspires all economic sectors and to engage the commitment of the deep state institutions
- Update the regulatory and institutional framework within which innovative activity takes place
- An expansion in public research can support business sector research.
- Government should act on:
 - Clear Vision and strategy how to reach a performant knowledge society. It is a holistic approach
 - Develop Infrastructure (legal, educational, economic, etc...)

Government Policy - 2

- Mentoring programs that connect entrepreneurs with experienced business professionals
- Constant budget allocation and incentives
- Human capital and research development
- Incentive programs and tax abatements
- State-funded seed and venture funds
- Market sophistication enhancement
- Business sophistication

Innovation Enablers - 1

Recent analysis has shown that increases in R&D intensity and innovation are driven by a wide range of factors including:

- 1. Stable macroeconomic conditions and low real interest rates which encourage the growth of innovation activity by creating a stable and low-cost environment for investment in innovation.
- 2. Fiscal incentives, which can be effective in raising R&D, especially when firms face financial constraints.

Innovation Enablers - 2

- Tax relief for private R&D is often found to provide a stronger stimulus to business R&D than direct government support.
- 4. Availability of internal and external finance.
- 5. Openness to foreign R&D, which is associated with higher productivity growth, especially when domestic R&D investment and capabilities are also high.

Gary Hamel Opinion

- Gary Hamel ranks as one of the world's most influential business thinkers and leader in innovative management strategy (WSJ).
- He developed with <u>C.K. Prahalad</u> the <u>Core Competence Model</u>.

"We've reached the **end of incrementalism**.

Only those companies that are <u>capable of creating industry</u> <u>revolutions</u> will <u>prosper in the new economy</u>"

Gary Hamel Opinion

- "Today, we're seeing the rise of the innovation economy, and those who cling to old ways of doing business are <u>getting left behind</u>."
- Innovation by itself is not enough. Everyone is focused on creating innovations. To win, you need to create killer innovations which I define as:

A killer innovation is what would be **difficult to duplicate**.

• In order to be a **true leader in any industry**, a business must focus on <u>creating killer innovations</u>.

Conclusion

- In innovation economics, innovation is viewed as a central tenet that
 - should be encouraged by government policies
 - bolstered by knowledge, technology, and entrepreneurship

• Quality in education and accumulation of knowledge heritage are keys to enable centre of excellence in R&D