

Some Thoughts and Issues on “Innovation as a Catalyst for Deepening Inclusiveness and Regional Integration”

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Outline

- 1. Introduction: We Need to Innovate**
 - ❑ Innovation not fully mainstreamed
 - ❑ Innovation and Competitiveness are linked
 - ❑ Tech brought changes but also widened divide

- 2. Innovation Landscape in PH**
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 - ❑ Sources of Cooperation
 - ❑ Barriers to Innovation

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1. We Need to Innovate

- Innovation includes:
 - ❑ **Technological innovation:** application of (new) knowledge in production to increase value such as devt of new or significantly improved **products**, or **processes**, or
 - ❑ **Non-technological innovation:** implementing new **marketing** or **organizational** methods
- Innovation widely regarded as a major driver of economic output, productivity and competitiveness
- and yet ... **Paradox:** “Despite the vast potential returns to innovation, developing countries invest far less ... than advanced countries” – Cicera and Maloney, 2017.

1.1. Innovation is not yet fully mainstreamed

- Innovation is viewed as a key to finding enduring solutions to socio- economic and environmental challenges, such as creating new jobs for a continually growing population, and promoting energy efficiency ... but not all firms innovate

Indicator	PHILIPPINES			ALL COUNTRIES
	2009 SIA, DOST	2015 SIA, PIDS	2015 WORLD BANK ENTERPRISE SURVEY	
Percent of firms that introduced a new product/service	37.6	30.7	32.9	36.6
Percent of firms that introduced a process innovation	43.9	30.6	40.9	34.2
Percent of firms that spend on R&D	40.3	26.7	21.9	16.9

1.2. Innovation and Competitiveness are linked



➤ Innovation and productivity are distinct but linked.

- Innovation means that future goods and services will not only be cheaper but also better.
- Without competitive environment, a nation's standard of living and propensity for economic growth will be lower

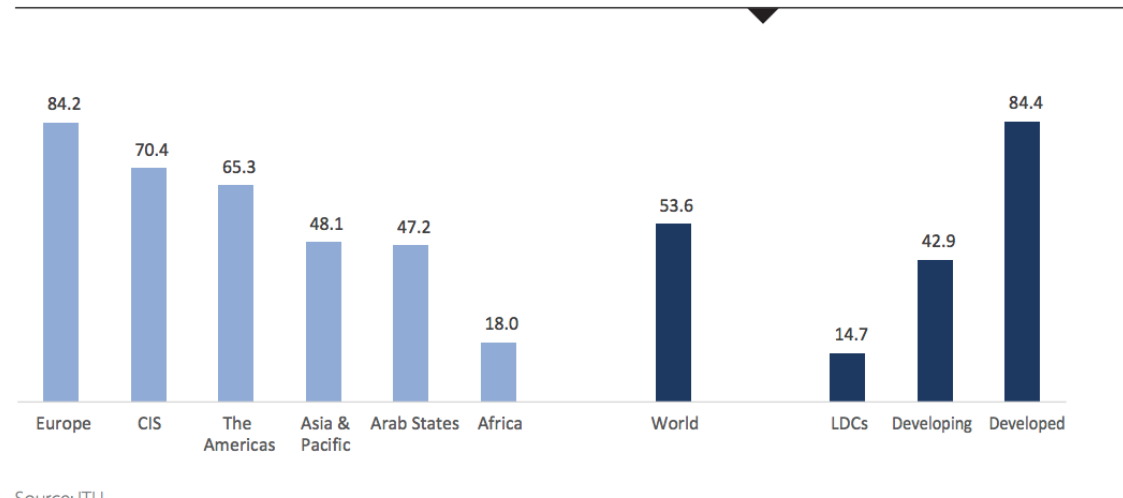
1.2. Innovation and Competitiveness (cont'd)

Global Innovation Index (GII), Global Competitiveness Index (GCI), and Competition Policy

ASEAN Member State	2017 GII Ranking	2016 GII Ranking	2017 GCI Ranking	2016 GCI Ranking	Existing Competition Policy
Singapore	7 th	6 th	3 rd	2 nd	Competition Act 2004
Malaysia	37 th	35 th	23 rd	25 th	Competition Act 2010
Thailand	51 st	52 nd	32 nd	34 th	Trade Competition Act 1999
Viet Nam	47 th	59 th	55 th	60 th	Competition Law 2004
Philippines	73rd	74th	56th	57th	Phil Competition Act 2015
Indonesia	87 th	88 th	36 th	41 st	Law Number 5 Year 1999 on the Prohibition of Monopolistic Practices and Unfair Business Competition
Cambodia	101 st	95 th	94 th	89 th	Draft Competition Law 2016

1.3. Tech brought change but widened divide

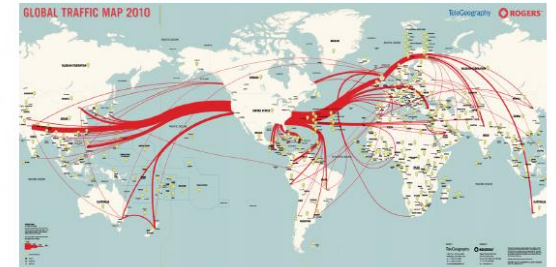
Proportion of households with Internet access, 2017*



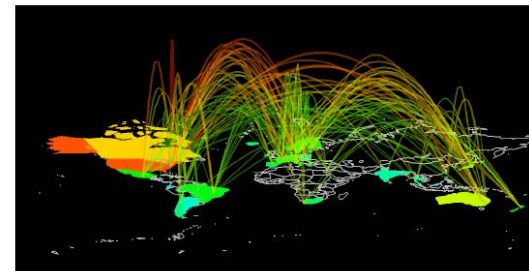
Source: ITU.
Note: * Estimates. CIS refers to the Commonwealth of Independent States.



Airplane Flights



Telephone Calls



Internet Traffic



Social Networking

- Internet penetration rates in 2017 vastly improved, but nearly 3.6 billion people (about half of the world's population) remain cut-off from the vast resources available on the Internet, despite falling prices for ICT services.

1.3.1. Dramatic Surge in Use of ICT Tools

Internet Use in PH

- Penetration rate : 58% as of 2017
(27% year on year growth)
- Average Connection speed: 4.2 mbs
(3rd lowest globally following Niger @ 3.0 and India 4.1)
- Average Time: 8.59 hrs daily
(via laptop/desktop: 5.23; mobile: 3.36)

[Source](#): We Are Social



50 million
active fb
accounts in
PH

6th largest
number of
active fb users

Mobile Use in PH

- As of 2017, 75% of Filipinos use mobile phones
- 126 mobile connections per 100 people
- 96% are on pre-paid mobile connections

2. Innovation Landscape in PH (acc to 2015 SIA)

Determinants of Innovation: Logistic Model Results

- The practice of **knowledge management** is a **determinant** of product innovation, process innovation and being an innovator.
- Human resources matter: firms with 20 percent or fewer employees having post-baccalaureate degrees are less likely to be innovators than those with at least a fifth of employees having post-baccalaureate degrees.
- Gross sales matters: **higher gross sales** (which correlates with establishment size) is a positive determinant of innovation..
- Location generally does not matter much, except for product innovation

2.1. Sources of Innovation in PH firms (acc to 2015 SIA)

Information source rated with “high” importance		MSMEs	Large	All Firms
1. Internal	a. Within your establishment or enterprise	9.1	32.3	10.2
2. Market source	a. Suppliers of equipment, materials, components, or software	7.5	16.1	7.9
	b. Clients or customer	14.1	19.8	14.3
	c. Competitors or other enterprise in your sector	8.7	9.0	8.7
	d. Consultants, commercial laboratories, or private R&D institutes	3.5	6.7	3.6
3. Institutional source	a. Universities or other higher education institutions	1.9	3.7	1.9
	b. Government or public research institutes	1.1	2.6	1.2
4. Other source	a. Conferences, trade fairs, exhibitions	5.9	10.8	6.2
	b. Scientific journals and trade/technical publications	2.0	7.1	2.2
	c. Professional and industry associations	3.5	8.7	3.8

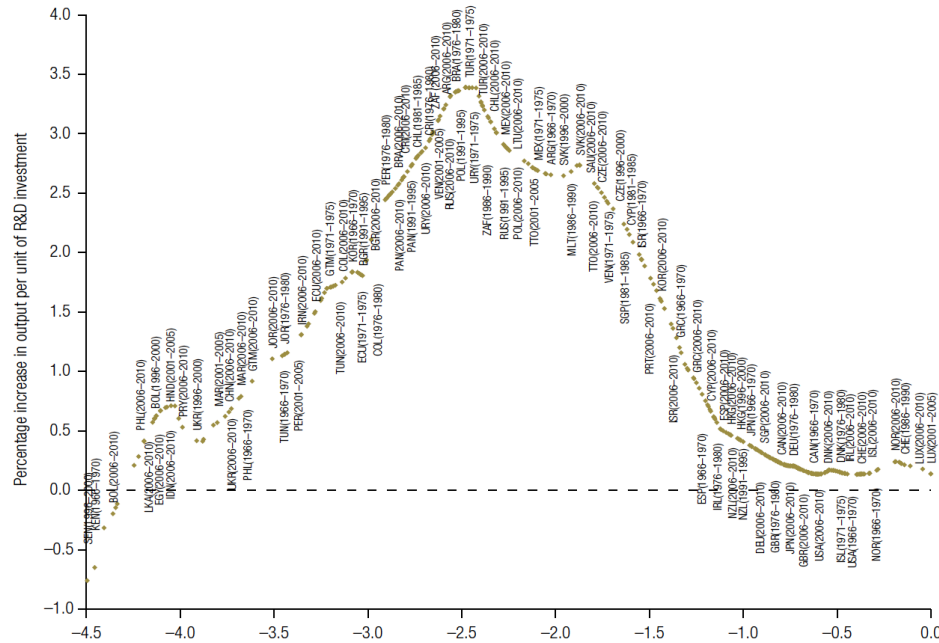
Clients and internal sources are regarded as highly important as sources of information on innovation. MSMEs regard customers most at 14.1% while a third of large firms relies heavily on information within the enterprise.

2.2. Barriers to Innovation in PH (acc to 2015 SIA)

- **Cost factors** most common issue identified by firms as significant hindrance to innovation.
 - One-fourth of MSMEs , and innovative large firms considered direct costs of innovation being too high
 - About one in every five MSMEs, and innovative large firms cited lack of funds
- One in five firms, especially among MSMEs, also reported **knowledge factors** or **market factors** as barriers to innovation.
 - More than 10% cited lack of qualified personnel as well as difficulty in finding cooperation partners for innovation and uncertain demand for innovative goods/services
 - 16.6% of MSMEs reported market being dominated by established enterprises as a barrier to innovation

2.3. Innovation Returns (in Developing World)

Returns to R&D Trace an Inverted U-Shape across the Dev't Process



Source: Goñi and Maloney 2017.

Note: Graph uses quinquennials of cross-country data from 1960 to 2010 to estimate the rates of return to research and development (R&D) across the development process: 0 is the frontier, and moving left represents progressively less developed countries.

- ROI on Innovation/R&D Spending rate of return begins to fall and may even be negative for quite poor countries
- Explanation: when countries are far from the technological frontier, the potential gains from “catch-up” increases but **if** stock of **complementarity factors** (human capital, firm and management capabilities, financial markets) are **missing, then returns will be low**

SOURCE: [Innovation Paradox](#)

3. Final Words

- Need for stronger linkages among innovators actors to make innovation and technology a means for social inclusion
- Role of government as enabler, acc to [WB Innovation Policy Guide](#), a “gardener”
 - ❑ “prepares the ground” (i.e. building up the human resources needed to drive innovation forward);
 - ❑ “fertilizes the soil” (i.e. boosting Research and Development and access to most up-to-date-information);
 - ❑ “waters the plant” (i.e., assists innovators by providing financial support and other measures to incentivize innovation); and
 - ❑ “removes weeds and pests” (i.e., removes regulatory, institutional, or competitive obstacles to innovation).
- Need a national innovation framework, plan of action, and regular monitoring of innovation to manage ecosystem



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Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas

Service through
policy research

Many issues discussed found in
PIDS Discussion Paper 2017-28 on
“Measuring and Examining Innovation
in Philippine Business and Industry”

Thank you!



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