

# **Comments on Industrial Development Report 2018**

**Akio Hosono  
JICA Research Institute**

# (I) “Demand-driven industrial policies” focusing on latent demand of BOP

- IDR 2018 focuses on the "virtuous circle" created by industrial development and demand.
- The challenge for the demand side of industrial development is the enormous base of the pyramid (BOP) that falls outside the virtuous circle, and how to incorporate this tier. Specifically, the problem is the lack of products that truly satisfy the needs of, and are affordable for, the poor in developing countries.
- Actionable variables (IDR: p.21-22): (a) information provider and/or awareness raiser; (b) enabler/ co-generator of innovation; (c) public procurement and so forth.
- An example of policies for “socially inclusiveness goals” (IDR: p.23): Health reform in Mexico and regional efforts to reduce the cost of essential medicines in Latin America through pooled procurement.
- These policies are closely related to inclusive businesses and BOP businesses.

# Examples of “inclusive demand-driven industrial strategies”

- In these strategies, some of the “inclusive demand-driven industrial policies” facilitate development of industries that respond to latent demands of BOP
- Demands of BOP remain latent due to lack of affordability (price), lack of awareness, lack of access to distribution (delivery) networks, and so forth.
- “Inclusive demand-driven industrial strategies and policies” could address these challenges.

# Case of Olyset net

- For details, see Kato, Hiroshi, and Akio Hosono  
“**Meeting the Demand** of the Poor: Two Cases  
of Business-led Scaling Up at the Base of the  
Pyramid”

# Innovation of products that satisfy latent demand

- Long-lasting insecticide-treated mosquito nets (LLINs) with following features:
  - (1) Long lasting (at least five years)
  - (2) Wide Mesh size (allowing good airflow)
  - (3) Durable
  - (4) Safe
- Sumitomo Chemical played a pioneering and central role in promoting the scaling up of LLIN distribution, by inventing an LLIN with the brand name of the “Olyset net,” which later was authorized as the first recommendable LLIN by WHO in 2001. The invention was selected as one of the “Coolest Inventions of 2004” by the TIME magazine.

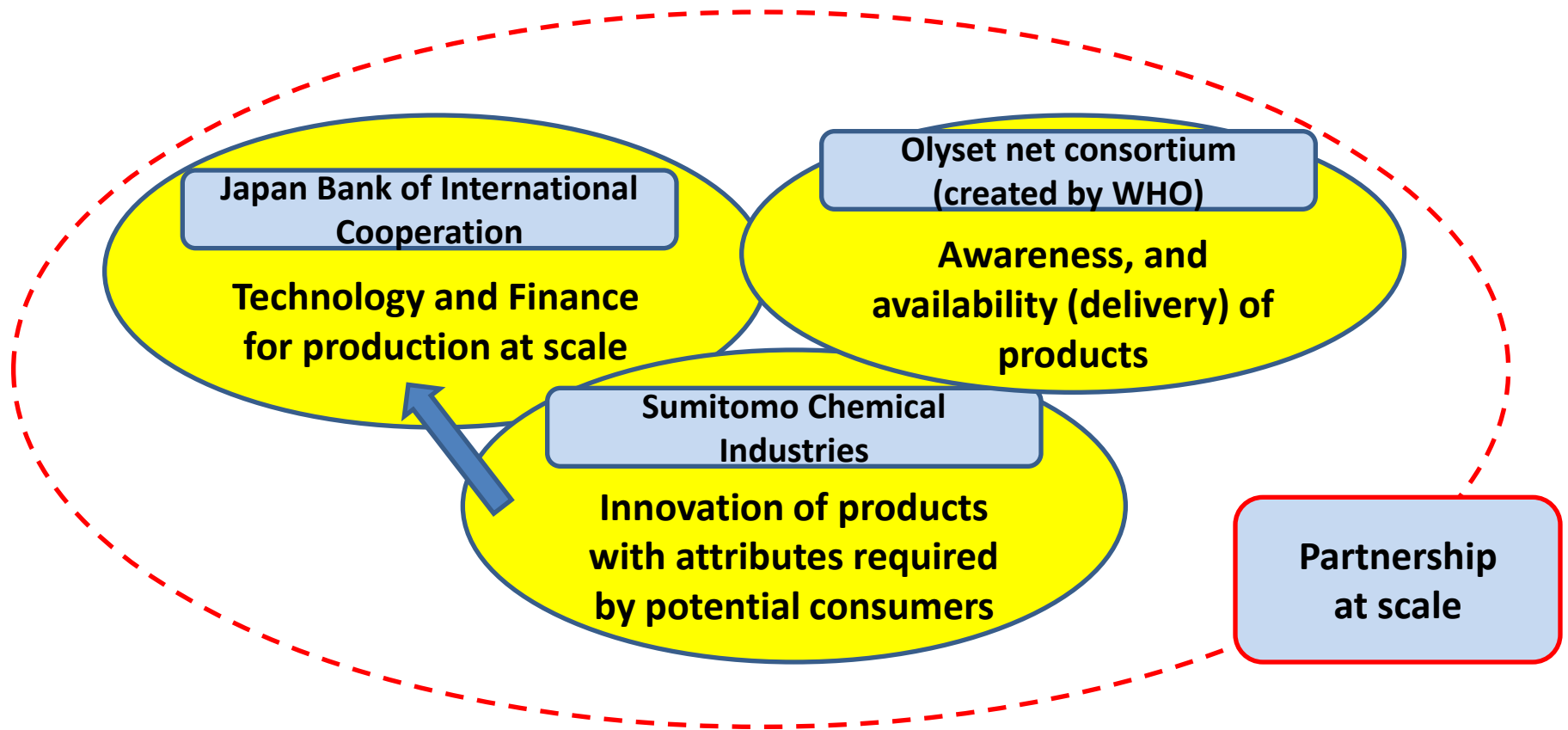
# Affordability of products

- Company “A to Z” in Tanzania was already producing 6 million conventional insecticidal nets annually and was a major supplier of bednets to UNICEF.
- In 2007, a company named Vector Health International was established by the joint venture by Sumitomo and “A to Z.” The factory commenced production in 2007, with an initial target production of 300,000 nets per year.
- As of 2012, their annual production has reached 30 million. The company now provides products in 23 kinds and sizes, priced at \$8 to \$13 per piece. (This contrasts to an initial cost of around \$ 30 to 40 per unit in the early 2000s.) It hires around 7,000 employees, 85% of whom are women. The company has 180 trucks to deliver the products to 7,000 delivery points around the country.
- This project was financially supported by the Japan Bank for International Cooperation. (JBIC)

# Facilitation of awareness and delivery

- 7 public and private organizations established Olyset consortium (created by WHO) : A to Z Textile Mills, Sumitomo Chemical, Acumen Fund, Exxon Mobil, UNICEF, Population Service International and WHO. (Example: UNICEF purchased nets from A to Z for distribution; Exxon mobile agreed to sell nets through Mobile Mart service stations)

# Olyset net: A model of scale up to make the product affordable and available





- In short:
- Innovation of products to address the latent demand
- Affordability through production at scale by finance and other means
- Accessibility through expedite distribution and delivery system
- Partnership (coordination) at scale

## **(II) *Kaizen*, TQM, and related approaches and virtual circle of industrial development**

- What matters for consumers is the creation of new manufactures that become better and cheaper overtime
- Interactions between demand and supply enable the diffusion of new, better and ever cheaper goods for consumers: Virtuous circle of industrial development (IDR: p.3, p.4)
- An effective approach to achieve the virtual circle could be: *Kaizen*, Total Quality Management (TQM) and related tools, method, process, and systems

# Interactions between consumers (demand) and manufacturing firms (supply)

- Toyota's TQM consists of the integration of three main points that must be present in order for the company to succeed:
  - (1) **focus on customers**,
  - (2) continual improvement, and
  - (3) **participation by all** employees.
- (DBJ and JERI 2003: 8)
- TQM includes a number of management practices, philosophies and methods to improve the way an organization does business, makes its products, and **interacts with its employees and customers**. Kaizen is one of those philosophies" (DBJ and JERI 2003, vii).

Demand-led inclusive and sustainable development: TQM (with *Kaizen* and QCC and other methods) could be an effective approach

- IDR 2018 refers to “comprehensive quality management,” and ISO 9001 and ISO 22000 (p. 39) regarding food products and medicines respectively (p. 41)
- One of the major points in common between ISO 9001 and QC Circle activities is the requirement for continual improvement. This requirement evaluates whether a company’s quality systems have met a certain level and met standards in terms of defects. (DBJ and JERI 2003: 54).

# Kaizen from inclusive and sustainable development perspective

- Kaizen: Japan's approach towards improved quality and productivity. The driving force of Japan's rapid growth.
- 'KAIZEN' is a management philosophy and know-how that brings about continuous improvement of productivity and quality. It is a philosophy.
- KAIZEN is a human centered approach, which fosters team work, self-reliance, creativity, and ingenuity.
- (Cited from JICA's brochure on Kaizen)

'KAIZEN' is a management philosophy and know-how that brings about continuous improvement of productivity and quality. It is a philosophy that has contributed to the development of Japan, especially in the manufacturing industry. More recently, it has proved to be valid in any country, culture, and sector. KAIZEN is a human centered approach, which fosters team work, self-reliance, creativity,



● **Characterizes of KAIZEN, representative tools, approaches, and effects**



(Cited from JICA's brochure on Kaizen)

### (III) Kaizen, TQM and sustainable growth:

Kaizen save energy and materials  
by eliminating muda, mura, and muri

- The core concept of kaizen is to eliminate **muri (overloading), muda (waste), and mura (inconsistency)** from the worksite through efficient utilization of labor, materials, and equipment.
- One of the significant impacts of Japanese TQC is often explained by describing the development of the car industry during the oil crises in the 1970s. During this period, **TQC was extended to activities for energy conservation and measures for resource maintenance**. It greatly impacted various industries and became more securely established as a valuable quality framework for Japanese industrial development.
- At least a part of very high energy efficiency of Japan could owe to energy saving efforts by TQC.
- Resource management and energy management could be effective with TQC/TQM approach. (Related remarks: IDR 2018: p. 117; p.120; p. 132)

# References

- Kato, Hiroshi, and Akio Hosono. 2013. “Meeting the Demand of the Poor: Two Cases of Business-led Scaling Up at the Base of the Pyramid” in Chandy, L., A. Hosono, H. Kharas, and J. Linn (eds.) *Getting to Scale: How to Bring Development Solutions to Millions of Poor People*. Washington DC.: Brookings Institution.
- DBJ (Development Bank of Japan) and JERI (Japan Economic Research Institute). 2003. *Handbook for TQM and QCC*. Washington, DC: Inter-American Development Bank (IDB).



# Thank you very much

- This presentation is preliminary and personal
- Not to be cited
- Comments welcome