

# MARKETING AND INNOVATION OF SME PRODUCTS IN DISRUPTION ERA

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“IF INNOVATIONS ARE BEING EMBODIED IN NEW PLANT AND EQUIPMENT, ADDITIONAL CONSUMERS’ SPENDING WILL RESULTS PRACTICALLY AS QUICKLY AS ADDITIONAL PRODUCERS’ SPENDING. BOTH TOGETHER WILL SPREAD FROM THE POINT OR POINTS IN THE SYSTEM ON WHICH THEY FIRST IMPINGE AND CREATE COMPLEXION OF BUSINESS SITUATIONS WHICH WE CALL PROSPERITY”

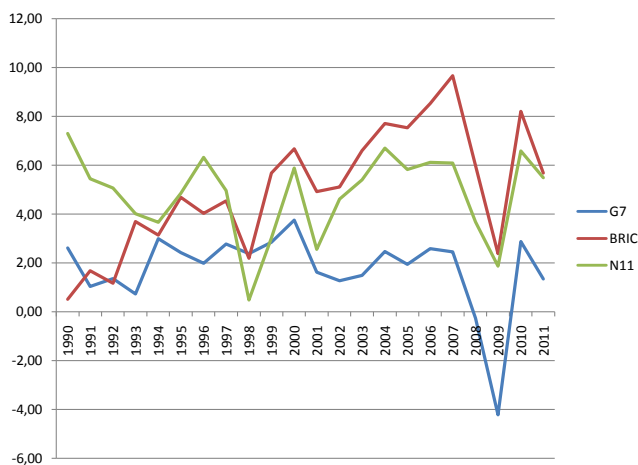
(SCHUMPETER 1939:P. 145)

# Introduction

In the last 30 years, world observes:

- The emergence of economy units characterized by high economic growth, increasing purchasing power, expanding middle class vs. sluggish, stagnant growth experienced by developed countries
- Increasing number of innovations originated from emerging economies vs. low growth of innovation from among developed countries

Figure 1. Average economic growth of three groups of countries 1990 -2011



BRIC are predicted to overtake the role of G7 in 2027 (Goldman-Sachs 2004)

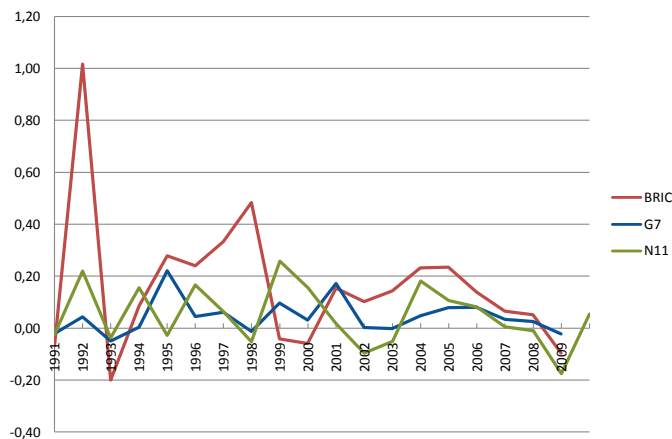
N11 is a group of 11 countries to become the world's largest economies after BRIC (Goldman-Sachs 2007)

Source: World Bank Data Indicator  
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# Introduction

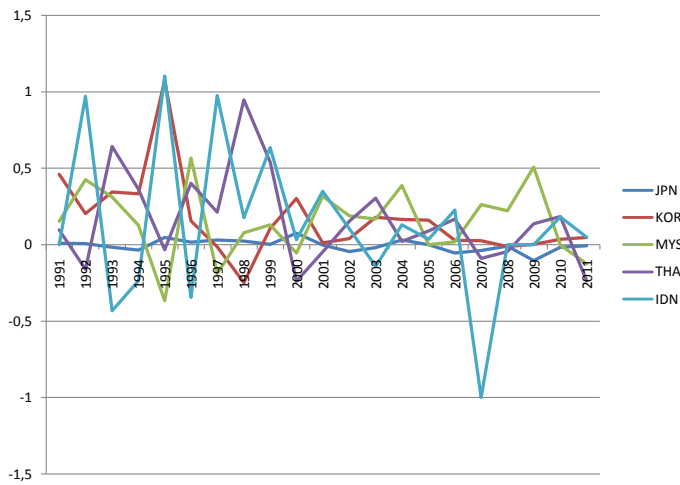
- The nations as the origin of innovative global companies
  - In 2010, 15 companies out of 50 global most innovative companies were from emerging economies (Einhorn and Arndt 2010)
  - In 1999, 171 Fortune 500 companies were from Japan vs. in 2012, a decreasing number of companies were from Japan (68) (Black 2012)

Figure 2. Average innovations growth of three groups of countries 1991 -2009



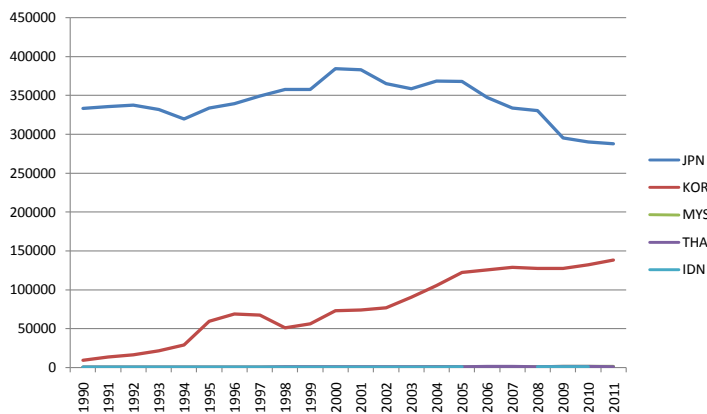
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Figure 3. Growth of innovations in selected Asian countries 1990-2011



Source: World Bank Data Indicator  
 Patent applications by residents  
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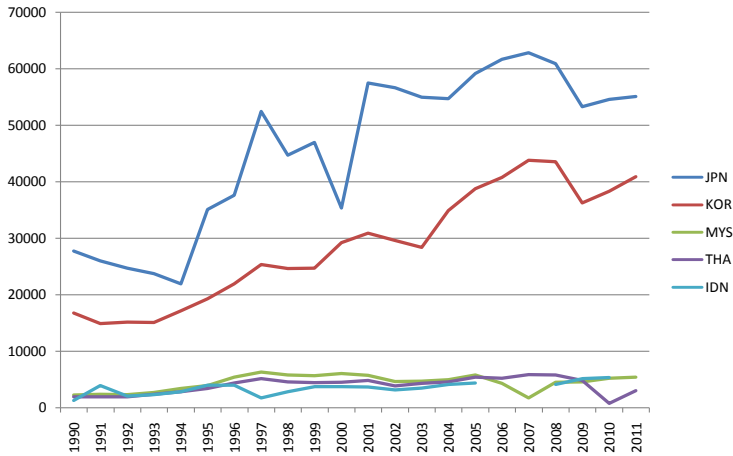
Figure 4. Absolute number of innovations in selected Asian countries 1990- 2011



Source: World Bank Data Indicator  
 Patents applications by residents  
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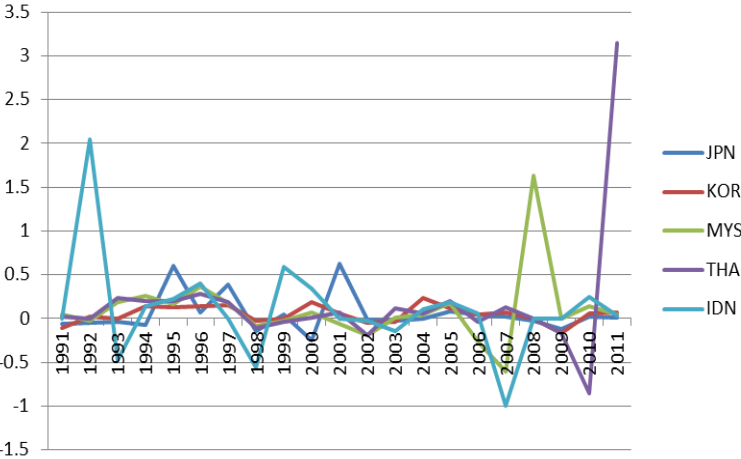
Figure 5. Growth of innovations in selected Asian countries by non residents 1990-2011



Source: World Bank Data Indicator  
Patent applications by non residents  
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Figure 6. Absolute number of innovations in selected Asian countries by non residents 1990-2010



Source: World Bank Data Indicator  
Patent applications by non residents  
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## What is Innovations

- Innovation is basically the creation of new knowledge (Noteboom 2007; Nonaka et al 2006; Popadiuk and Choo 2002)
- Typology of Innovation: radical vs. incremental (Wheelright and Clark 1992) ; disruptive vs. continuing (Christensen 1997); explorative vs. exploitative(March 1991); incremental, modular, architectural, radical (Henderson and Clark 1985)
- Types, intensity of knowledge and expertise may create different level of innovation
- The larger the difference between the existing accumulated knowledge and external new knowledge, the higher the potency to create radical innovation (Noteboom 2007)

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## What are the Antecedents of Innovations?

- The existence of set of **knowledge**
- Introduction of **new knowledge** into the existing ones
- The availability of **absorptive capacity** factors
- The existence of **Cognitive Diversity**

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## Absorptive Capacity

- Absorptive capacity is the ability of an economy to utilize and absorb external information and resources (Adler 1965)
  - Absorptive capacity is a critical factor in knowledge transfer and innovation activities (Cohen and Levinthal 1989,1990; Castellacci and Natera 2012; Noteboom 2000)
  - It is proposed as a critical factor in catch-up process (Bodman and Le 2011; Criscuolo and Narula 2008; Hu and Matthews 2005; Paus and Galagher 2008)
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## How Industry Disruption Changes how Businesses Operate and Innovate, Especially for SMEs?

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## Major Drives of the New Economy

Beginning of 2000'an:

- Digitization and Connectivity
- Disintermediation and Reintermediation
- Customization and Customerization
- Industry Convergence

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## Characteristics of Current Disruption

- It supports **Interconnection**
- It enhances **Information Transparency**
- It provides the **Technical Assistance**
- It facilitates **Decentralized Decision**

Industrial Revolution 4.0 lies in advances in communication and connectivity rather than on the technology itself



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## How the Current Disruption Changes The Business?

- Changing the level of customer expectations,
- Changing how product enhanced and improved
- Changing the mechanism of collaborative innovation, and
- Changing the organizational form

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## Challenges for Indonesia's SMEs in innovations

- in understanding the market, especially the needs and wants.
- in adopting the available technology to gather the market information
- in improving the quality of human resources (skills, creativities and agility) to cope with the ever-changing environment

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## How IR 4.0 Benefits the SMEs?

- ❑ Market is the best supplier of information and knowledge
- ❑ Technology is widely available to access the market and its information

- ❑ It is not about the information system that matters
- ❑ It is about the willingness to listen and to act (on the market information that matters the most).

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## How to drive Innovation in SMEs

- Enhance the knowledge about the product and market
- Place the system to mine the information from customers
- Syndicating with peer SMEs
- Place a learning system

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## Strategy

- Opening up to the market changes
- Trying the best fit enhanced technology to listen to the market
- Adopting the use of technology
- Collaborating
- Improvement of the human resources quality

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## Types of Innovations

- Radical : characterized by new and fundamentally different technology and design that connect the components of technology different from the existing ones in the market, and makes the existing technology obsolete and irrelevant (Henderson and Clark 1990; Christensen 1997; Popadiuk and Choo 2006).
- Modular: changing the key core technological modules but not the components and its linkages (Abernathy and Clark 1985; Henderson and Clark 1990; Tushman et al 1997).

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## Types of Innovations

- Architectural innovations: changes only the components and the linkages of these components but leaves the core technology intact (Abernathy and Clark 1985; Henderson and Clark 1990; Tushman et al 1997) Known as reverse innovations.
- Incremental innovations: strengthens the core technology and the linkages among the components without changing either in a significant manner (Henderson and Clark 1990; Christensen 1997; Popadiuk and Choo 2006)

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## Government priority on Revolution 4.0

- Industri Makanan dan Minuman,
- Industri Otomotif,
- Industri Elektronik,
- Industri Kimia, serta
- Industri Tekstil