



MULTIMEDIA UNIVERSITY

Faculty Of Business

## FDI Spillover Effects On Asia–Pacific Sustainable Productivity Growth

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# Background

## Overall Benefits of FDI Inflows

Foreign direct investment (FDI) is tremendously important to the **developing** and **transition** economies, Javorcik (2004).

Multinational Enterprises (MNEs) are a source of **capital**, **employment**, **technology**, **management skills** and **international distribution networks**, among many other things, OECD (2002).

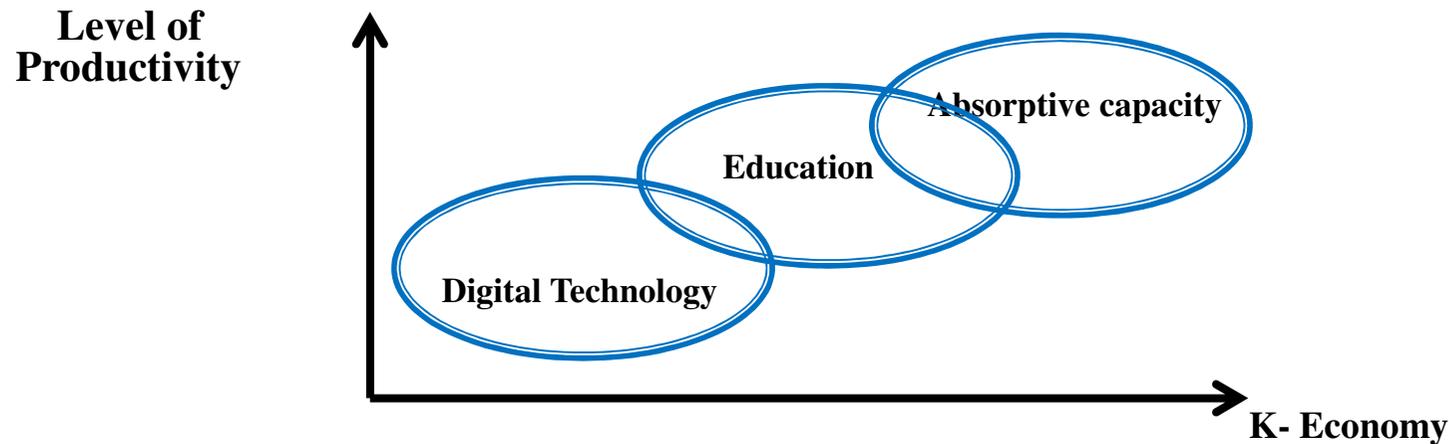
Beyond the strictly economic benefits, FDI contribute to increase **productivity** and **competitiveness** of the domestic firms through knowledge spillovers, Javorcik (2004).



- ▶ According to the Organization for Economic Cooperation and development (OECD) “beyond the initial macroeconomic stimulus from the actual investment, FDI influences growth by raising total factor productivity (TFP) and, more generally, the efficiency of resource use in the recipient economy. This works through three channels: the linkages between FDI and foreign trade flows, the spillovers and other externalities vis-à-vis the host country business sector, and the direct impact on structural factors in the host economy ([OECD, 2002](#)).

# Background

## Dominant Factor In Knowledge - Economy



According to (Romer, 1990; Aghion and Howitt, 1992), human capital is an endogenous driver of technological progress, which is building block of the Knowledge based economies, requiring a high qualified workforce to facilitate knowledge spillovers.

# Background

## Selected Economies Performance

- TFP which indicated as the combined contribution of quality of the factors of production and an indicator of the technological progress that is showing the spillover effects that must transfer the technology to the hosting economy and upgrade the skills of its human capital, that is what called productivity driven.



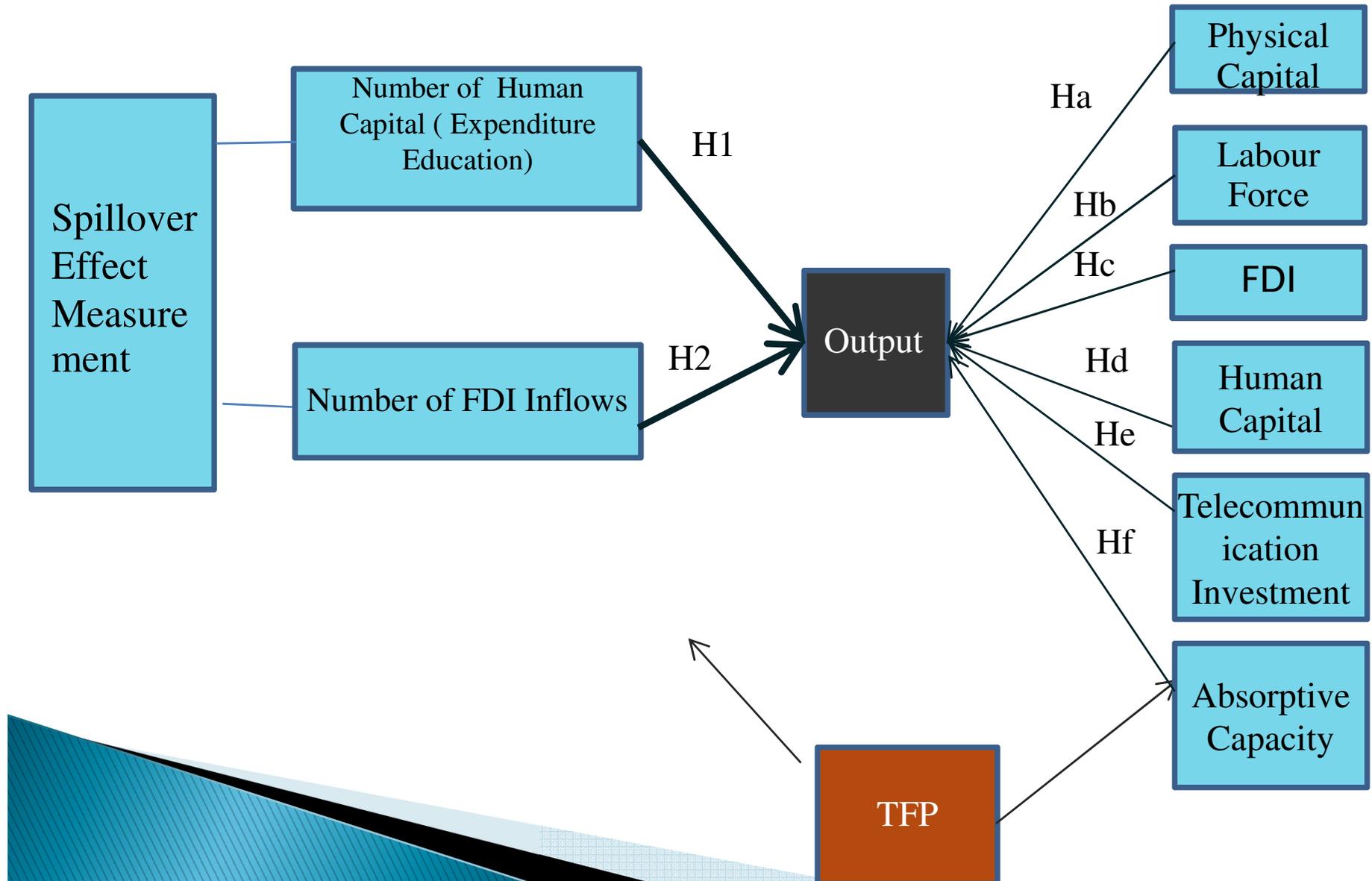
# Objective of the Study

The objective of the study is to examine the impact of Foreign Direct Investment (FDI) spillover effects on sustainable productivity growth of selected Asia-Pacific countries such as (Malaysia, Indonesia, Singapore, Philippines, Thailand, China, Japan, Korea, India, Australia and New Zealand).

## The Specific Objectives:

- To identify the factors determining output, labour, capital productivity and TFP growth contribution to the selected Asia-Pacific economies productivity growth;
- To investigate whether the FDI spillover effects in Asia-Pacific selected countries are productivity driven or input driven; and

# Model 1: The impact of FDI Spillover Effects on Output (Extensive Growth Theory)



## Model 1: The impact of FDI Spillover Effects (Numerical) on Output Growth (Extensive Growth)

$$GDP_{i,t} = AK_{i,t}^{\alpha_1} L_{i,t}^{\alpha_2} FDI_{i,t}^{\alpha_3} HC_{i,t}^{\alpha_4} AC_{i,t}^{\alpha_5} Telint_{i,t}^{\alpha_6}$$

Taking logarithm from both sides, the production function in log-linear form using i for Countries and t for time, adding error term:

### ► Step 1- Econometrics Estimation:

$$\Delta \ln GDP_{i,t} = \Delta \ln A + \alpha_1 \Delta \ln K_{i,t} + \alpha_2 \Delta \ln L_{i,t} + \alpha_3 \Delta \ln FDI_{i,t} + \alpha_4 \Delta \ln HC_{i,t} + \alpha_5 \Delta \ln AC_{i,t} + \alpha_6 \Delta \ln Telint_{i,t} + U_{i,t}$$

TFP

Physical Capital

Foreign Direct Investment

Human Capital  
( Education Expenditure)

Absorptive Capacity

Telecommunication Investment

i= 1,2,...,11  
t=1,2,...,473

### Step 2 - Productivity Indicators Calculation:

$$\Delta \ln TFP_{i,t} = \Delta \ln GDP_{i,t} - (\alpha_1 \Delta \ln K_{i,t} + \alpha_2 \Delta \ln L_{i,t} + \alpha_3 \Delta \ln FDI_{i,t} + \alpha_4 \Delta \ln HC_{i,t} + \alpha_5 \Delta \ln AC_{i,t} + \alpha_6 \Delta \ln Telint_{i,t})$$

i= 1,2,...,11  
t=1,2,...,473

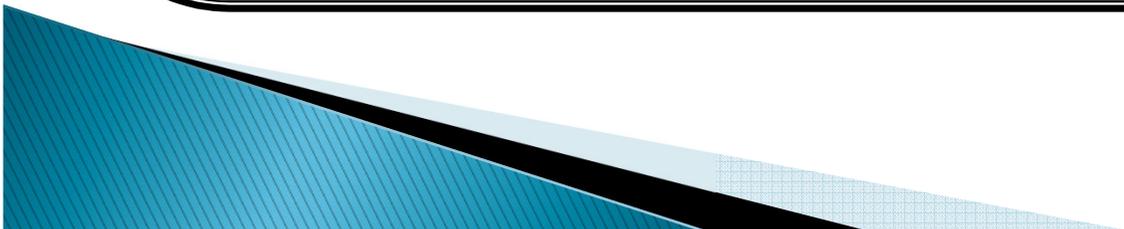
# Findings' Implications

The results showed that productivity growth of significant Asia Pacific's economies in aggregate output model that input driven was generally more prevalent than total factor productivity (TFP) growth driven when the results of TFP were compared.



# Findings' Implications

interaction of knowledge spillover and domestic human capital to upgrade their skills and firms to transfer the technology to the economy which drive high economic growth with spillover effects. This spillover effects might be helpful to enhance human capital development and eventually to contribute significantly to economic growth.



# Social Capital

- ▶ The interaction between excellent Association and interpersonal skills will make the difference, (this what so called Social Capital).

