

# Role of Services in Integrating Production Networks

Paper Presented at the  
ARTNeT Conference on  
Empirical and Policy  
Issues of Integration in  
Asia and the Pacific  
November 2, 2012  
Hotel Galadari, Colombo,  
Sri Lanka

**Debdeep De**

Lecturer

Jaypee Business School

Noida, INDIA

[debdeepde@gmail.com](mailto:debdeepde@gmail.com)

**Biswajit Nag**

Associate Professor

Indian Institute of Foreign Trade

New Delhi, INDIA

[biswajit@iift.ac.in](mailto:biswajit@iift.ac.in)

# Objective

- To understand the international production networks and inter-relationship with Global value chain.
- To understand service linked characteristics of the IPN on select sectors.
- To design service linked IPN cooperation which will facilitate value co-creation crucial to achieve the best possible outcome from free trade regime for deeper integration.

# Proposed Plan for the Paper

- International Production Network (IPN)
- IPN and Value chain
- Sectoral Overview of IPN: The Asian Experience
- Role of Service Linkages in IPN
- Integration of Service Linkages: Need for Value Co-creation
- Services Linked IPN Cooperation

# What is Production Network?

- “A set of **inter-firm relationships** that bind a group of firms into a larger economic unit”- based on supply chains that procure parts /components from a large no. of firms located in different countries for a final assembly in a separate location as an export base.
- IPN/supply chain in electronics & cars for parts & components (intermediate groups) required in the assembly process
- The **“fragmentation” of production**— scattering of parts of production process across different countries—is a major contributor to regional/global) economic integration because it stimulates FDI & intensification of trade in intermediate goods.
- In East Asia, IPN is characterized by different firms specialize in a certain production process which is located in various locations based on their comparative advantage.

Source: Sturgeon, Timothy. (2001).

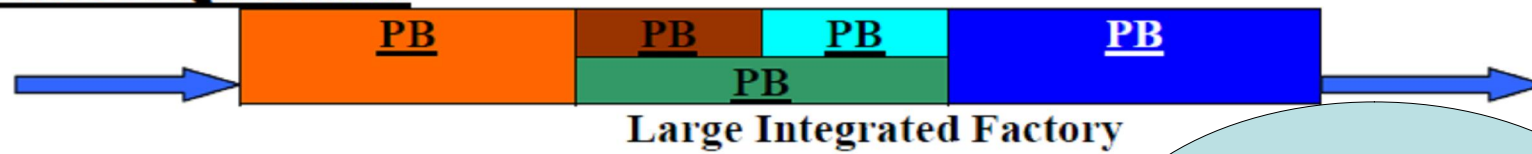


# Mechanics of IPN

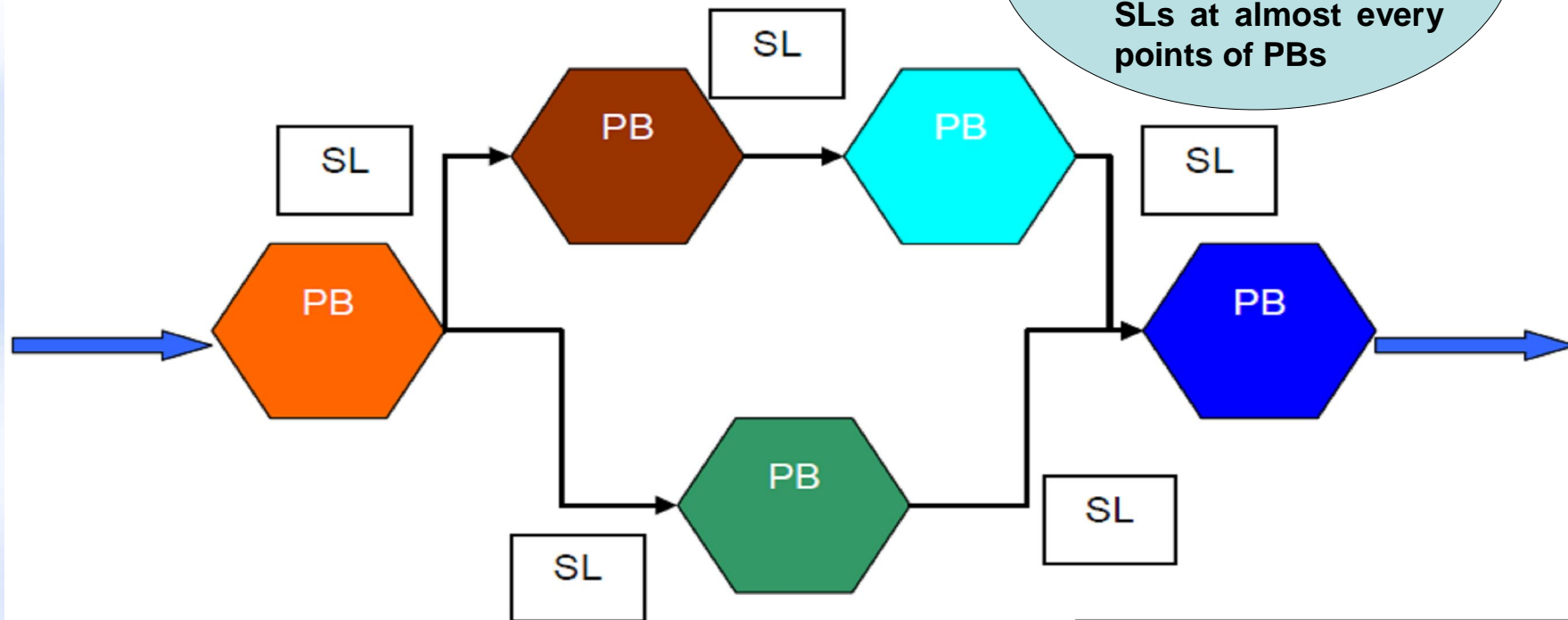
- The first line of thought is the **fragmentation theory**. Deardorff (2001) defines fragmentation as “the splitting of a production process into two or more steps that can be undertaken in different locations but that lead to the same final product”. Fragmentation becomes economical when the cost of service links (SL) connecting production blocks (PB) is low enough. The SL cost includes transport costs, telecommunication costs, and various coordination costs between PBs. SL cost heavily depends on the nature of technology in each industry.
- The second line of thought is the **agglomeration theory**. This is an extension of international trade theory with external economies of scale while introducing the concept of “space” from city planning and other academic fields
- The third line of thought is the **internalization theory** of corporate firms. A firm typically does not conduct everything from upstream to downstream. It sets its upstream-side boundary by purchasing materials or parts from other firms and determines its downstream-side boundary by selling their products to other firms or consumers. Such a boundary setting decision is here called an internalization decision. In addition, a firm cuts its internalized activities into thin slices and places these slices at appropriate places. This is called a “location decision.”

# The Fragmentation

## Before Fragmentation



## After Fragmentation

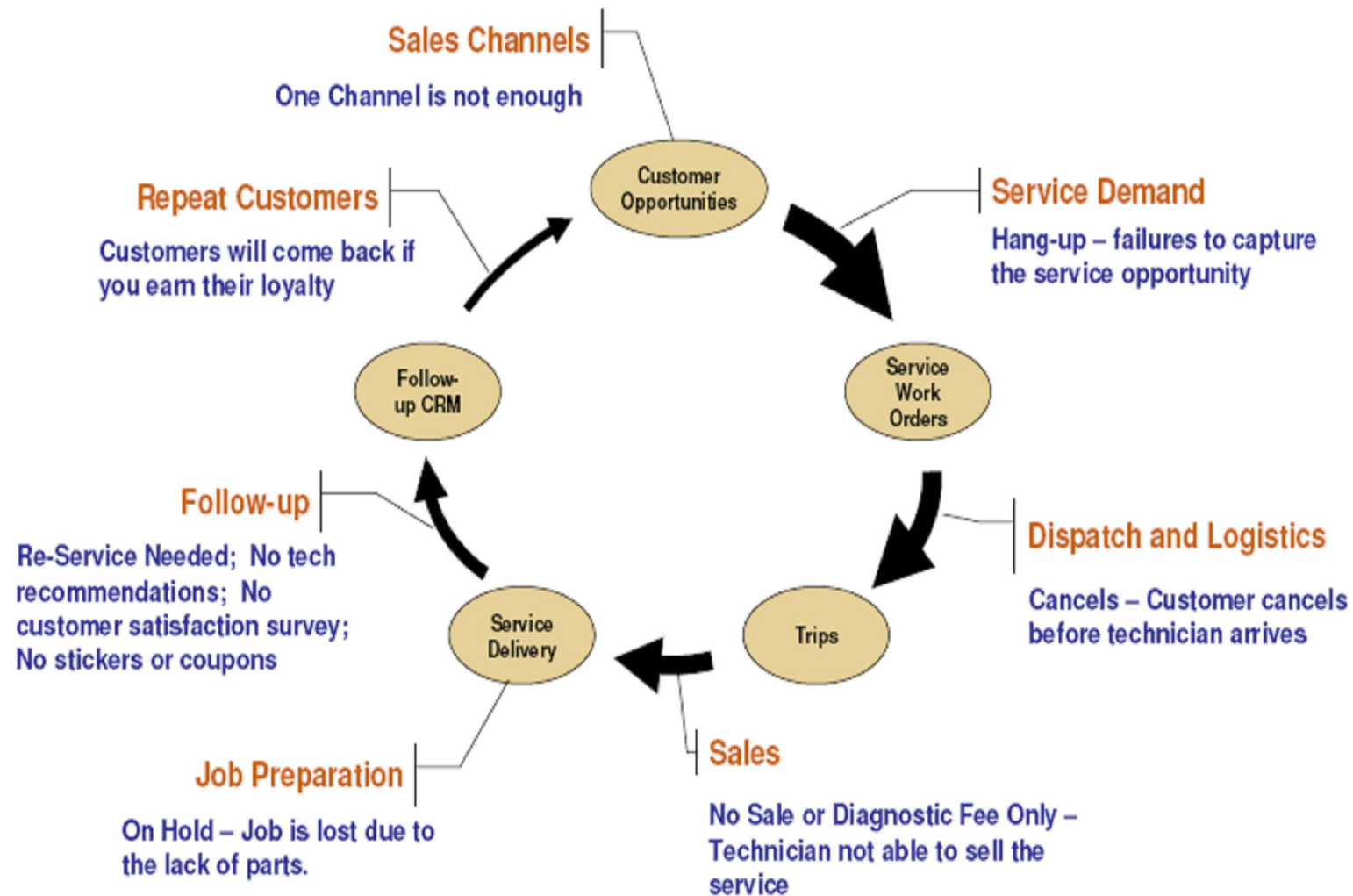


The linkages are not really one way but it has become both ways riddled with SLs at almost every points of PBs

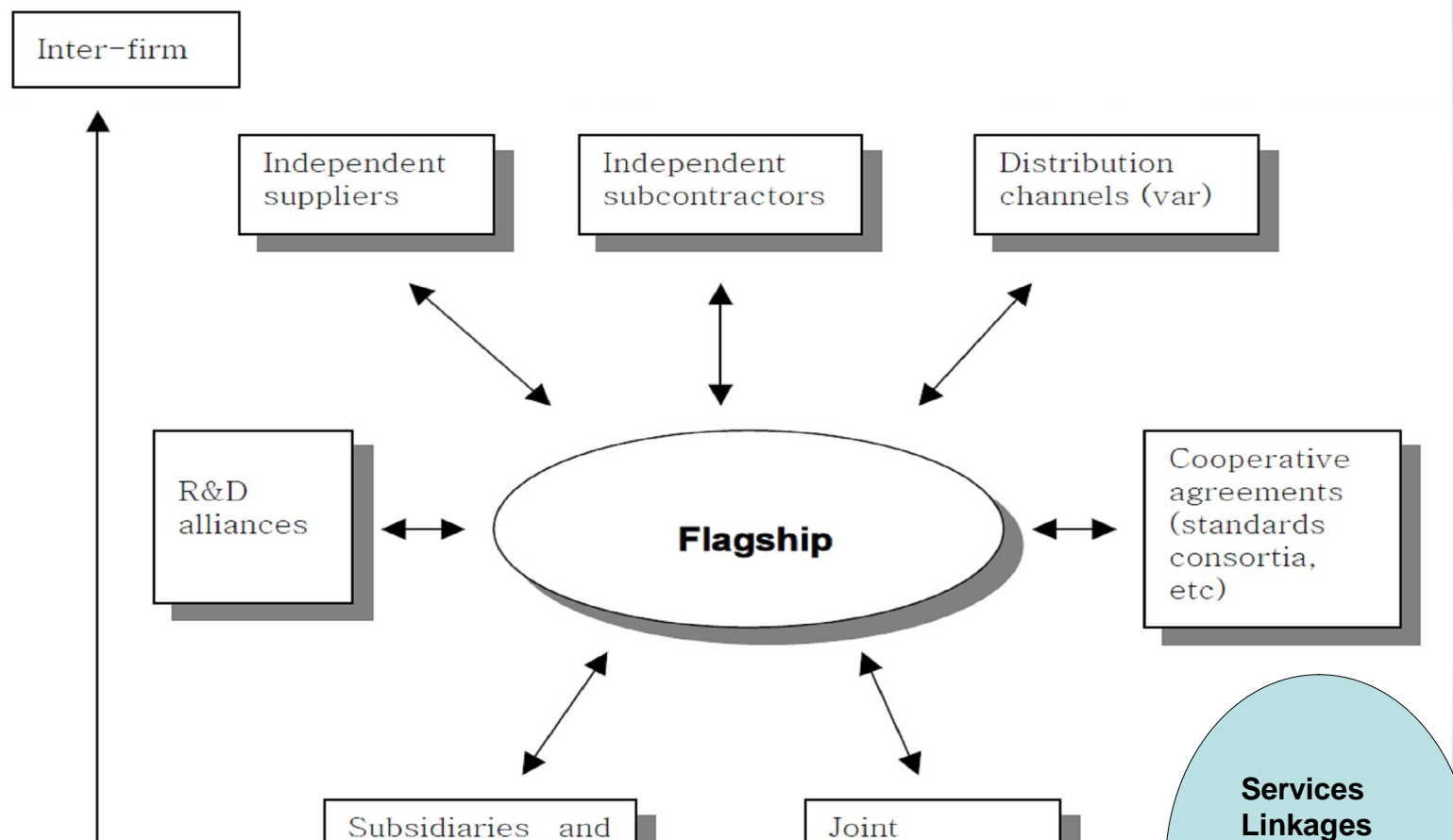
PB: production blocks  
SL: service links

Source: Kimura, F. (2006)

# The Network of Services Chain



# Understanding the Linkages in Production Network



预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_7329](https://www.yunbaogao.cn/report/index/report?reportId=5_7329)

