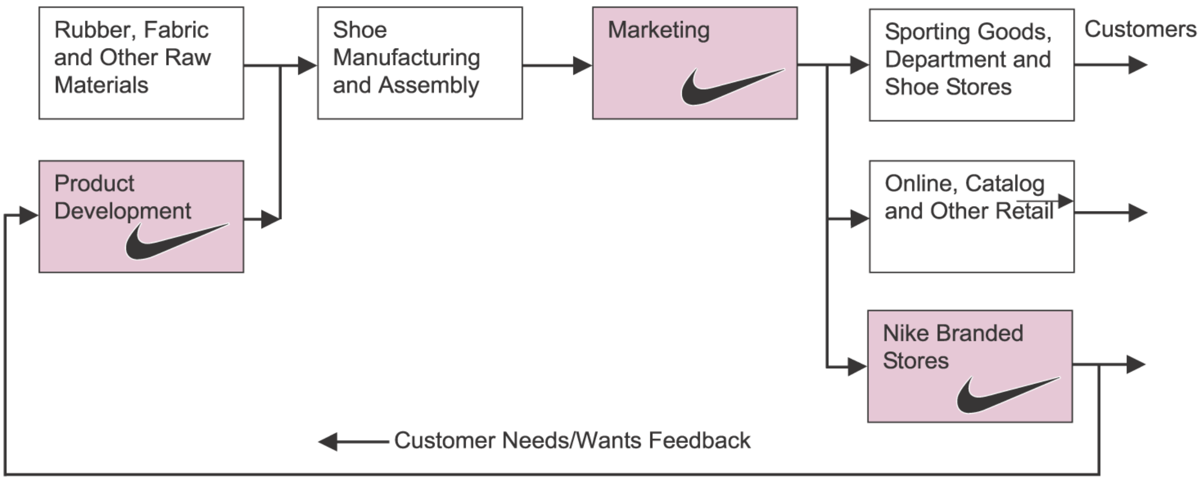
WHAT IS THE GLOBAL PRODUCTION NETWORK (GPN)?

***GPNs refer to the extensive webs of intra-, inter- and extra-firm connections through which commodities are produced, distributed, sold and consumed. These networks are geographically extensive and functionally integrated across national boundaries. GPNs are usually network system coordinated and controlled by a globally significant TNCs.

These TNCs are **lead firms** that are key shapers of the global economy; they are market leaders in terms of their brand names, technology, product/services, and marketing capabilities**.'**

The production of products used to be viewed simply via a global value/ production chain (Fig. 2).

However, in a GPN, the complexity of the production of goods and services are captured through the **production circuit** whereby processes of **inputs, transformation, distribution, consumption** are involved



An example of a GPN e.g. Simplified Nike version

Hence GPNs provide an analytical framework focusing on the roles of economic actors in the establishment of contractual and technological linkages between global brand name products/ service providers and their strategic partners/ suppliers in order to reveal the uneven distribution of value capture and retention between the countries of production and consumption.

HOW DOES A GPN WORK?

There are intra-firm networks, inter-firm and extra-firm networks within a GPN.

Intra-firm networks refer to processes in the functioning of a TNC which is controlled by the TNC itself. Such **vertical integration** involves internal division of labour within a TNC, usually in the control and coordination of different business functions.

It involves mainly the corporate and regional HQ functions (financial role and processor and transmitters of information), as well as, R&D facilities (who play a critical role in the survival of firms) of a TNC.

The spatial organisation of intra-firm networks are as follows:

- Concentrated in the home countries
- Location criteria: access to skilled labour; sources of scientific development and appropriate infrastructure
- Recent trend towards internationalization of R&D
    - a strategy to gain new market
    - internationalization of labour market for R&D

Inter-firm networks refer to processes in the functioning of a TNC which is controlled by other TNCs. Such **horizontal integration** usually involves subcontracting, outsourcing, suppliers and also formation of strategic partners. Inter-firms networks are important for the TNCs as:

1. They are a means to rationalise the production of goods and services for profit maximisation.

2. They also allow the TNCs to better focus on its core function of coordination and control of its business, as well as, R&D whereby innovation of its products and services are required to constantly cater to the needs of its consumers.

3. Risks of the production and innovation are shared.

Extra-firm networks

Extra-firm networks are those that work with TNCs but they are not companies. They include, states, Non-Governmental Organisations, International organisations and consumers. TNCs engage in extra-firm networks and negotiate or cooperate with them to enhance value and maximise profits.

For examples, TNCs may choose to work with states which are willing to give them tax incentives, for example, Samsung enjoys the highest tax incentives out of all other corporations in Vietnam of a corporate income tax rate of 10%.

TNCs may work with NGO like fairtrade or forest stewardship council to market their product as more environmentally sustainable and to improve their reputation. For example, Ikea aims to get all their furniture made only from FSC certified sources

WHAT ARE THE FACTORS INFLUENCING THE SPATIAL ORGANISATION OF GPNs?

Lead firms search for spatial, organizational, and technological ‘fixes’ to challenges of global competition. The decision and choice of where its different functions are found are based primarily on NGSMTC:

(1) **C**omparative advantage of a firm/ place to support the function of the TNC at minimal cost
(2) **M**arket availability and potential
(3) **G**overnment policies and infrastructural development and support of place to support the required function of the TNC
(4) **S**upranational Organisations/Multilateral Institutions – trade agreements or financial policies that favour production
(5) **N**on-Governmental Organisation (NGOs) through addressing labour, environmental issues and therefore changing production processes

Technology is seen as the enabler of the functions of the TNC (NOT the determining factor).

HOW DOES THE GPN of TNCs connect places within the global economy through flows of materials and capital

1. Sourcing of inputs from different places

Inputs can be both inter-firm or intra-firm networks in a GPN. For example, Kentucky Fried Chicken (part of the TNC YUM! Brands) sources its chicken from other companies such as Tyson Food, Kock Foods, Pilgrims pride from the USA. KFC in Malaysia get their chickens from DBE Gurney Resources Bhd.

Other forms of input may be for parts such as Iphone (where its camera is from Sony, it’s battery is from China’s Amperex Technology and the OLED display for Iphone 14 is from Samsung.

For other TNCs they may have their own suppliers and produce their own raw-material making it an intra-firm network instead. E.g. TNCs that extract oil to refine and sell such as Shell.

Think: what is the purpose of having inputs (suppliers) being inter or intra firm network?

2. Transformation of inputs into products at different places

After the raw materials are obtained, the second part of the TNC process often have the production and transformation phase where the raw material is converted into a product. It can be at the KFC outlet where the raw chicken is made with 11 herbs and spices or it could be at the car factory of Toyota where it is being assembled, or at Foxconn where the different components of an iphone are being assembled into an Iphone as well.

Capital thus flow to such places with suitable labour condition. Toyota **offshore (intra-firm)** it’s factory to Thailand to produce cars due to cheaper labour and Apple **outsource (inter-firm) its assembly** of Iphones to Foxconn in China

3. Distribution of products to different places

The finished product being able to be sold would also require other intra or inter firm relationships such as logistics firms like DHL, Maersk, Fedex. It is these logistics TNCs that enable trade between countries.

Another very important point of distribution and consumption that we need to consider which could be inter-firm or intra-firm could be **retail**.

Think of where you get your Iphone? Is it at the Apple Store or at the Singtel/Starhub/M1? Which is intra-firm network, which is inter-firm network

Methods of distribution into retail can also be in the form of inter-firm networks such as **franchising** where e.g. franchise opportunity is brought from TNCs such as Mcdonalds, Subway, 7-11 to expand the TNCs GPN into different countries.

4. Consumption of products in different places

Depending on the type of TNCs, sometimes distribution and consumption happen concurrently, sometimes we can differentiate it as a distribution network then a consumption network.

Consumption may also come in the form of **obtaining the service** in the intra-firm network of the TNC. For example TNCs like Sands group, originating from USA – open up integrated resorts like MBS in Singapore. There is no distribution but as consumers book a hotel room or visit the casino in MBS, they are consuming the product and generating profits for Sands Group.

Or think of TNCs like airline companies, when you fly Singapore Airlines from Singapore to Japan and back to Singapore. You’re consuming the product in Changi Airport and Narita Airport.

Then if consumer buy a product through retail, they are essentially also consuming the product.

[Sample Question to ponder the factors]

With reference to countries with varying levels of development, explain why they are an attraction for transnational corporations (TNCs) to set up their global production networks (GPNs).

[RI 2016 H2 Promos]

Introduction:

Define GPNs: A GPN is a network system that is coordinated and controlled by a globally significant TNC and involves a vast network of overseas affiliates, strategic partners, key customers, and non-firm institutions. A GPN is made up of intra-firm and inter-firm networks.

An intra-firm network focuses on how TNCs organise their economic functions and divisions of labour internally, within the organisation. This includes the (1) corporate and regional HQ, (2) R&D facilities, (3) transnational operating units.

An inter-firm network consists of a dense web of inter-firm (external) networks of independent contractors, suppliers, business partners and strategic allies. This includes (1) subcontracting and outsourcing, (2) strategic alliances and joint ventures, (3) franchising and cooperative agreements.

Intra-firm networks – Where and Why TNCs set up their corporate and regional HQs and R&D?

Where?

- Mainly in DCs or NIEs.

Explain why

- Presence of educated and skilled labour. Higher number of tertiary educated population.
- Good hard infrastructure. Stable electrical and communications networks.
- Political and social stability. Safer place for TNCs to invest in. **[Role of state as non-firm actors]**
- Protection of IP. Money and time invested in R&D will be protected. **[Role of state as non-firm actors]**

Example: Apple Headquarter and R&D in **California, USA**. Intellectual property protected; Highly skilled labor (US college graduates) to work for them. Good infrastructure…

Intra-firm networks – Where and Why TNCs set up their transnational operating units? (production plants)

Where?

- Mainly NIEs and LDCs.

Why? Depends on the type, but primarily where labour is abundant and cheap.

- Globally concentrated production: production in one location.
- Host-market production: production in a national market.
- Product specialisation for a global or regional market: production for a regional market.
- Transnational vertical integration: chain-like or final assembly plant.

Inter-firm networks – Where and Why?

1. Subcontracting and outsourcing: Mainly **NIEs** and **LDCs** with cheap and abundant labour.
   Example: Shenzhen, China for final assembly of Apple product by Taiwanese Manufacturer Foxconn
   Commercial subcontracting:

2. Strategic alliances and joint-ventures **can be anywhere**: Allows TNCs to pool resources to share costs of R&D, expertise and labour.
   Example: STAR alliance,
   Apple strategic Alliance with Microsoft 2015 onwards → launch of MSOffice features in Ipad pro

3. Franchising and cooperative agreements: Allows TNCs to expand quickly into global markets without taking on additional risks.
   Starbucks expansion and franchising
   McDonalds' franchising

** 1-2 paragraphs for the above points.*