The Role of Diaspora in Indian IT
(Comparisons with Taiwan)

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The Indian Diaspora

- Over 27 Million people of Indian Origin live overseas.
- In 2015, remittances from the Indian Diaspora were valued at US$ 70 Billion – the highest of any country in absolute terms – 3.5% of GDP (higher than Foreign Direct Investment)
- In the United States, the Indian Diaspora outstrips all other minorities in measures of education, income and employment.

Country | Overseas Indians
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USA | 4,455,909
Saudi Arabia | 2,800,013
Malaysia | 2,150,000
Myanmar | 2,005,576
UAE | 2,002,349
UK | 1,825,000
Canada | 1,016,185

Source: Ministry of Overseas Indians Affairs, 2015

![Remittance Inflows](Source: World Bank Data)

A new elite
Income and education among foreign-born population in America, by selected country of birth, 2012

Source: The Economist, 23 May 2015
The Indian IT-BPM Industry

- One estimate of the Indian IT and BPM (Business Process Management) industry values it at ~ US$ 150 Billion; exports for IT services and BPM valued at ~ US$ 55 Billion and US$ 23 Billion respectively\(^1\)

The IT-BPM Industry\(^1\) –

- Constitutes 9.5% of National GDP
- Is responsible for 38% of Total Service Exports
- Employs over 3.5 Million persons

- In 2000, 10 of the 20 most successful software companies in India were managed by former Indian residents in the US; 5 of these were joint ventures between Indian and foreign companies

- In 2012, 12 of the 20 most successful IT companies in India have expatriate Indians as founders/co-founders or CEOs/Managing Directors\(^2\)

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\(^1\) NASSCOM
\(^2\) Pande, Amba, “The role of Indian Diaspora in the Indian IT Industry”
The Indian Diaspora and the Evolution of the IT Industry

- **1960**: Indian Institutes of Technology Established; many graduates migrate to the west.
- **1964**: Tata Consultancy Services appoints MIT educated FC Kohli; begin recruitment of foreign-trained Indians.
- **1968**: With a growing shortage of engineers and an expanding computer industry in the US and Europe, "Bodyshopping" gains popularity, Indian Software exports quadruple.
- **1972**: Indian Diaspora in the US foster connections, become "Brand Ambassadors" for skilled Indian IT professionals.
- **1976**: New Silicon Valley firms willing to partner with Indian IT Industry.
- **1980**: India begins economic reforms and liberalisation.
- **1984**: Indians increasingly appointed as high-level executives in USA; Indian Entrepreneurs launch new firms in both India (Cognizant, Mphasis) and US (Sun, Hotmail).
- **1992**: NIIT Established.
- **1996**: Associations such as "the IndUS Entrepreneurs" established.
- **2000**: Changes in US Immigration Laws shift outsourcing to back offices in India.
- **2004**: Solutions to the "Y2K" bug highlight Indian competence and build trust.

India Software Exports (US$ Billions)
Perceived Benefits from Diaspora Interaction

- As the Literature on the impact of migration of skilled professionals evolves from migration as a cause of “Brain Drain” to migration and reverse migration as resulting in “Brain Circulation” and Skill Transfers, the benefits from Diaspora interaction are being increasingly recognized (Meyer 2001, Saxenian 2004) –
  - Skill Formation
  - Social Capital and Networking
  - Inward Remittances & FDI
  - Market Creation

- A Harvard Business School study found that local Indian software entrepreneurs who had lived abroad relied significantly on diaspora networks for business leads and financing in the face of domestic barriers in financing and business set-up (Nanda and Khanna, 2009)
Comparisons with Taiwan
Morris Chang

Morris Chang is the founding Chairman of Taiwan Semiconductor Manufacturing Company Ltd. and known as the father of Taiwan's chip industry.

Educated at Harvard, MIT and Stanford, Chang spent 25 years working with Texas Instruments before being recruited by the government of the PRC to head the newly formed TSMC in 1987. As firms increasingly saw value in outsourcing their manufacturing capabilities to Asia, TSMC became one of the world's most profitable chip makers and spearheaded Taiwan's technological manufacturing leap.

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**Taiwanese IT Industry: Diaspora Engagement**

- The central role of Taiwanese industrial policy in catch-up growth and technological upgradation is well recognized in literature.

- **Taiwanese industrial policy had a deliberate focus on Diaspora engagement.**

- Since the 1960s, Taiwanese officials sought industrial policy advice from Taiwanese Diaspora, attempting to study and mimic the Silicon Valley model in Taiwan.
  - This included links between Industry and Public Research, Venture Capital etc. and the development of the Hsinchu Science Park

- Large numbers of US-educated Chinese engineers began to return in the 1990s as entrepreneurs as well as employees of established technology firms – the Hsinchu Science Park catalyzed this return

- **Policy efforts to attract Taiwanese Diaspora back include travel subsidies for returnees and family, employment assistance, investment assistance, recruitment programmes etc.** (Ireland and Guo, 2001)

- All of this occurred on the base of an established low-cost electronic manufacturing sector.
Porter’s Diamond: Diaspora and industry in context

**Factor Conditions**
Taiwan’s IT industry depends on Japanese and US suppliers. To benefit from reliable domestic semiconductor supply a number of chip factories are already operating or are under construction.

**Firm strategy, structure and rivalry**
Thousands of small, adaptable manufacturing firms capable of speedily reorienting production in accordance with changing markets.

**Demand Conditions**
Taiwan’s companies serve as suppliers, subcontractors, OEMs and ODMs to electronics MNEs - large volume production for major U.S. computer brands.

**Related and Supporting Industries**
Strong presence of complementary industries (consumer electronics, electronic components) along with strong clustering – 90% of supply infrastructure is situated in the 60km between Taipei and Hsinchu.

**Government**
Numerous policies for incentivising private investment, demand stimulation, training, public R&D support and market intelligence. Hsinchu aims at attracting overseas Chinese to return.

**Chance**

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Based on Porter, Michael "The competitive advantage of nations" (1990)
Comparisons & Conclusions

The role that the Indian Diaspora played was by circumstance, not design.

- Unlike the purposive approach of Taiwanese industrial policy towards development and the Diaspora, the development of India’s IT sector as a whole was largely unplanned.

- Similarly, the involvement of the Indian Diaspora in stirring the fortunes of the IT industry was from its innate desire for engagement with Indian industry (coupled with chance and overarching economic developments), not focused Government action.

  - Even early attempts such as the ‘Indians abroad’ section in the National Register of Scientific and Technical Personnel was for locating potential appointees to posts in India rather than influencing industrial policy. (Meyer et al, 1997)

Taiwanese approach to Diaspora engagement was an integral part of *larger industrial policy*.

- The Taiwanese government’s encouragement of Diaspora return was buoyed by the existence of an upgrading technology sector where new manufacturing firms could be easily established – circumstances that did not hold true for India.
Thank You
References

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