

IT and the Global Labor Market

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Investigation

Role and value of IT in global economy

Service sector

Manufacturing

Is this value responsible for outsourcing?

Outline

- Value of IT in U.S. economy
 - Service sector
 - Manufacturing
- Value of IT in developing countries
- Discussion of outsourcing

Looking Back: Mid 90s

- IT is important to growth, but in context of a broader set of managerial decisions
- Productive IT applications had 3 characteristics
 - Tailored by sector and linked to performance levers
 - Built capabilities over time
 - Co-evolved with managerial innovation

Narrowly Tailored

- Eight performance levers
 - Substituting capital for labor
 - Deploying labor more efficiently
 - Reducing non-labor costs
 - Increasing labor efficiency
 - Increasing asset utilization
 - Selling new value added goods
 - Shifting to higher value added goods
 - Realizing more value from existing goods

Service Sector

- Retail
 - Examples
 - Warehouse and transportation management systems
 - Reduced nonlabor costs
 - Substitution of capital for labor
 - Realized more value from existing goods
 - Increased labor efficiency

Service Sector

- Banking
 - Examples
 - Credit scoring and underwriting software
 - Check imaging
 - Voice Response Units (VRUs)
 - Levers
 - Substituting capital for labor
 - Deploying labor more efficiently
 - Increasing asset utilization

Manufacturing

- Semiconductors
 - Examples
 - Electronic design automation
 - Process control systems
 - Process diagnostic tools
 - Levers
 - Selling of new value added goods
 - Increased labor efficiency
 - Increased asset utilization

Manufacturing

- Valve making
 - Computer numerically controlled (CNC) machines
 - Programmed by software
 - Leads to reduction in number of machines
 - Flexible manufacturing systems
 - Coordinates multiple CNC machines
 - Speeds up run time

Manufacturing (cont)

- Thus, competitive strategy of IT enabled U.S. firms has changed to producing customized products

Global Implications

- Outsourced services and goods
 - IT offers little comparative advantage
 - Domestic demand for IT has dropped
 - Comparative advantage in labor
- Demand still exists for specialized, expert services

Global Implications

- Same is true of manufacturing
 - US firms produce more specialized goods
 - Developing nations producing more batch commodities

Conclusion?

- Given 3.4 million IT jobs are projected to go offshore by 2015, how will we bridge digital divide here in US?
- How will we distribute those jobs among developing nations?