

The New and Traditional Economies

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What Is the “New Economy”?

- ◆ The widespread access to, sharing of, and use of information (knowledge) in economic activities through new technologies
- ◆ The “New Economy” is founded on the information and communication technology revolution which has led to huge declines in the costs of computation, information storage and retrieval and communication as well as huge increase in the speed of computation and the speed and throughput volume of information transmission
- ◆ Over time, more and better information has become available faster and cheaper and to a vastly greater number of people

The Relationship between the New and the Old Economies

- ◆ New ways of serving old needs, executing old tasks and fulfilling old functions--”creative destruction”
 - ◆ e.g., internet bookstores wipe out real brick and mortar bookstores; internet securities trading knock out traditional stock brokerages (however, there is still a role to play--assurance of fulfillment, assumption of credit and performance risks--reputation and brand name are still important)
- ◆ Creating new needs through new products and services not previously available
 - ◆ e.g., GPS links for emergency road service; satellite-based auto-pilot systems for automobiles
 - ◆ e.g., “Cuusoo” (Japan)--consumer participation in the design of new products
- ◆ Forming new markets
 - ◆ e.g., special suppliers of tools for left-handed individuals

Impacts of the New Economy:

(1) Reductions in Transactions Costs

- ◆ Significant reductions in the transactions costs (due to more, faster, better and cheaper information), including the costs of intra-firm and inter-firm coordination
 - ◆ The costs of internal management, monitoring and control--This can facilitate both greater centralization and paradoxically greater autonomy and devolution of decision-making downward and outward
 - ◆ The costs of inter-firm coordination
 - ◆ The IT revolution enhances predictability and reliability of division of labor across firms and thus shifts the advantage to “De-verticalization”, “Out-sourcing”, and “Globalization” of supply chains
 - ◆ Reduction in transactions costs enables the exploitation of efficiencies in specific segments of the design, manufacturing, marketing and distribution process
 - ◆ Many services have become highly tradable or potentially highly tradable and can be “outsourced” globally
 - ◆ e.g., software, back-office paper work, design, quality assurance, entertainment

(2) Increases in Timeliness of Information;

(3) Reductions in Costs of Market Formation

- ◆ Significant increases in the timeliness of economically relevant information (sales, inventory, competitor's prices and new products, etc.) and decreases in the response time
- ◆ Significant reductions in the costs of market creation, expansion, differentiation, and segmentation--markets not bounded by physical space and time limitations
 - ◆ Aggregation of users/consumers to create new and diverse markets consisting of consumers who may be geographically dispersed or socioeconomically stratified
 - ◆ e.g. vegemite; vegetarians; exceptionally large and small sizes of clothing; left-handed individuals
 - ◆ Vast expansion of consumer choice
 - ◆ The ease of customization through the internet (e.g. many different choices are possible (Dell))
 - ◆ Products are built to order rather than on speculation

Implications of the New Economy

- ◆ Both the reductions in transactions costs and the timeliness of information flow expands the span of control of managers and results in the flattening of organizations
- ◆ They also encourage “de-verticalization”, “globalization” and “outsourcing”
- ◆ The “Product Cycle” has been greatly shortened--reduction in “time to market”--the average product cycle has shortened from 5 years to 12-18 months
- ◆ Transformation of the “Old Economy” through application of the new information and communication technology--meeting the “old” needs in new ways
- ◆ The “New Economy” further facilitates globalization through the international diffusion of the information/communication technology

De-Verticalization or Fragmentation of Production

- ◆ De-Verticalization or “Fragmentation”--vertical division of labor--separation of design, manufacturing, marketing, inventory, transportation and distribution functions (generalized out-sourcing) both within and across national boundaries
- ◆ Logistics and supply chain management--managing a production process not all of which lies within a single firm
- ◆ De-verticalization depends on the possibility of standardization (uniform grading), existence of common platforms (precision, communication protocol, compatibility, etc.).
- ◆ It also depends on quality assurance (possibly by impartial third parties) and timely performance--reputational capital is key here
- ◆ However, a long-term collaborative relationship is still indispensable in sectors with rapid innovation (repeated game)

The Benefits of De-Verticalization or Fragmentation of Production

- ◆ De-verticalization and out-sourcing encourage specialization (in tasks rather than the products)
 - ◆ Emphasis on “core competence” and focus on adding value
 - ◆ Blurring the boundary between manufacturing and service
- ◆ De-verticalization and out-sourcing permit efficient sharing of resources and thus
 - ◆ Reduces the fixed costs of and hence lowers the barriers to entry--promotes competition
 - ◆ Example: the rise of “fabless” semiconductor design firms
 - ◆ Enables the realization of economies of scale and learning-by-doing effects through specialization in particular tasks (rather than products)
 - ◆ e.g., firms do not typically generate their own electricity; the semiconductor foundry business; delivery services such as United Parcel Service (UPS) and Federal Express
 - ◆ Allows the realization of the benefits (efficiency gains) of targeted incentives in specific tasks or segments of the traditional business
 - ◆ Much duplication of efforts--”rediscovering the wheel”--can be avoided

The New and Old Economies Can Complement Each Other: The Story of a Super-Market

- ◆ Scanner at the checkout stand
- ◆ Direct and instantaneous communication with the supplier
- ◆ Just-in-time delivery by the supplier
- ◆ Efficient inventory maintained by the supplier
- ◆ Coordination of inventory and production by the supplier
- ◆ Savings realized by the super-market--no paper-work, no inventory, no warehouse, no trucks--can be shared with the supplier

Transformation of the Old Economy

- ◆ The new economy will bring about creative destruction of the old economy
- ◆ Many old economy functions can be rationalized and made more efficient through the use of information and communication technology
- ◆ It makes no sense to try to save low-paying jobs through government protection or subsidy; even if one were successful, the workers thus saved would be doomed to a permanent level of low income
- ◆ The Government is much better off providing education and re-training allowances to affected workers, and to provide life-long subsistence support where it is not possible to re-educate or to retrain them (this way the problem will be solved in at most one generation)

Successful Adjustment to the New Economy

- ◆ The Silicon Valley has been able to continue to be prosperous with out-sourcing on a massive scale by controlling the most profitable (the highest value-added) links of the global supply chain
- ◆ Production has been out-sourced to elsewhere in the United States (Colorado, New Mexico, Oregon) and to the rest of the World, including East Asia
- ◆ Real wage and income per capita have kept rising and unemployment is at an all-time low
- ◆ The old industries, firms and job are substituted by new ones
- ◆ Promotion and maintenance of an environment that facilitates the constant creation of new firms and industries is the key
- ◆ Provision of a social safety net and re-education and re-training opportunities