

Globalization Evolution

Globalization 1.0

- International trade and commerce
- Supported by good banking and financial systems facilitating the "free flow of capital"
- Driven by Industrial countries
- Acquisition of natural resources
- •No / little technology or industry transfer

Globalization 2.0

- •Facilitated by information and communication technology
- •Cost efficiencies and financial returns derived from labor arbitrage and "optimization" of local tariffs and incentives.
- Access to emerging markets
- Sophisticated risk management products
- •Transfer of manufacturing and supply chain management

Globalization 3.0

- •Information and communication technology drives paradigm shift, "location independence"
- Agile business models that support real-time portfolios of products and services
- •Virtualization of capabilities and resources (cloud sourcing etc.)
- •Supported by sophisticated intellectual property recognition
- •Technology Transfer: "Best Shoring" based on specific (transient) market conditions

Why Globalization 3.

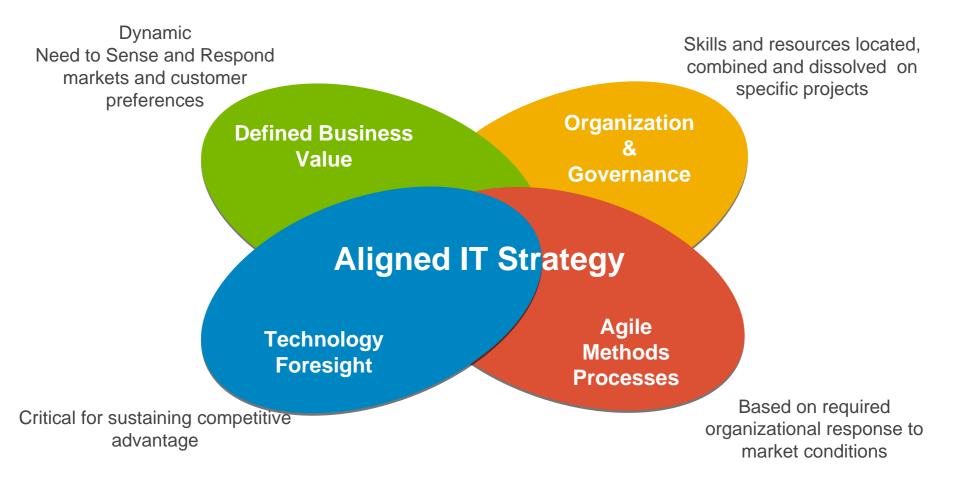
Which of the following areas of activity offer the greatest potential for productivity gains over the next 15 years?

- Low costs will matter less as a source of differentiation.
- Collaborative relationships will multiply and intensify.
- Technology spending will shift to enabling knowledge workers to do their job better.
- Organizational structures will change

Knowledge Management
Customer Service & Support
Strategy & Business...
Operations & Production...
Marketing & Sales Activities
Human Resource...
Corporate Performance...
Product Development
Supply-chain Management
Financial Management &...
Risk Management &...
Procurement



Business Capabilities Required to be Successful in Globalization 3.





Implications of Globalization 3.0 on Technology and Industry Transfer

Reducing physical transfer of technology

Virtual networks of innovation

Commoditization of prototyping (3D printers etc.)

Physical means of production will continue to remain close to resources

- Natural resources
- People

Nation states will compete through:

- Access to natural resources
- Virtual networks of capability (virtual value chains)



World is Flat Dell's Story in Globalization 2.0

Taking this Dell Alienware notebook as an example, it illustrates the complex global nature of Dell's supply chain:

 The machine was designed by Dell engineers in Texas and Taiwan and assembled in China from parts made in China, the Philippines, Germany, Singapore, Costa Rica, Israel, India, Thailand, and Mexico.

Global Production Network

- Minimize stock
- Lean manufacturing
- Just-in-time

Location

- Minimize cost
- Build to order
- Direct model



Entered APJ Access to emerging markets

1993

Open a MFG center in Ireland

1990

Expand operations in Europe,

APJ Customer Center Facilitated by information and

1996

communication technology

1998



Xiamen MFG and support Center Transfer of manufacturing and supply chain management

1999



MFG Center in Brazil

Globalization 3.0 Dell's Vision

Globalization 3.0

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Dell 3.0

- •IT Strategy drives business strategy which in turn drives IT strategy
- •B2C and B2B systems capture and drive product / service innovation
- Collaborative tools and knowledge management make expertise globally pervasive
- •Thought leadership and ALL intellectual property is leveraged, including manufacturing and supply chain expertise
- •Move from low cost to best value where value includes cost, access to markets, access to capabilities

