How Will Western Manufacturers Survive?

Webcast January 2008



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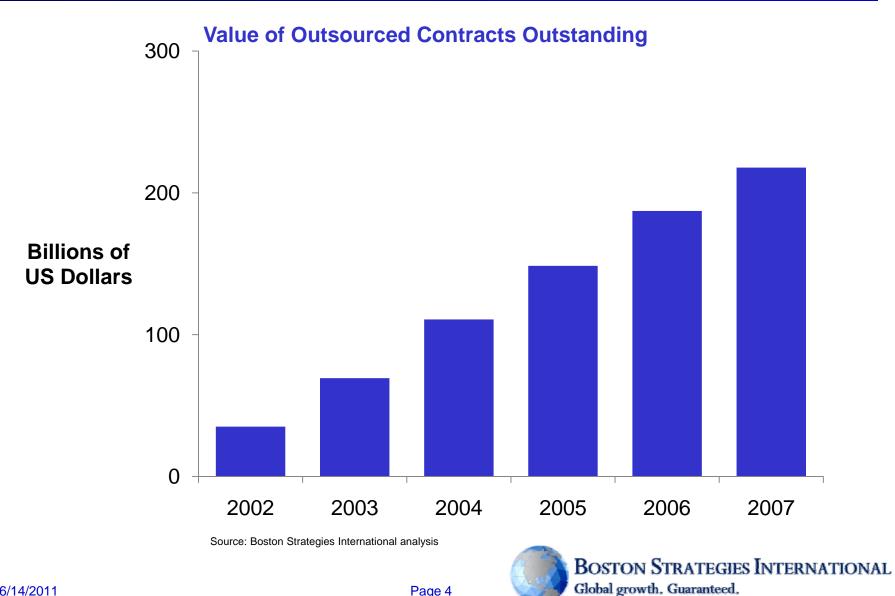
Agenda

- Outsourcing and off-shoring continue to grow
- Western manufacturing losing ground
- This problem won't go away
- The high-growth opportunity
- The art of high-cost country sourcing (HCCS)

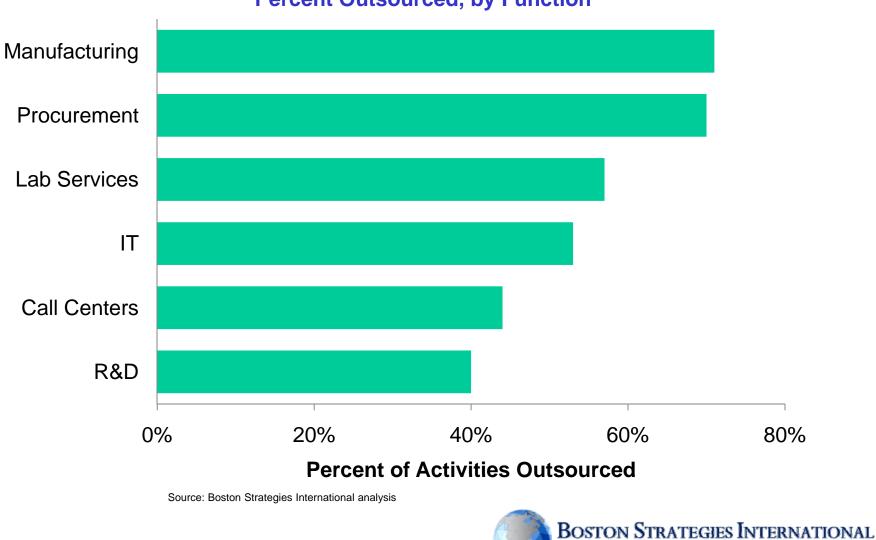


Outsourcing and off-shoring continue to grow

The off-shoring trend is continuing



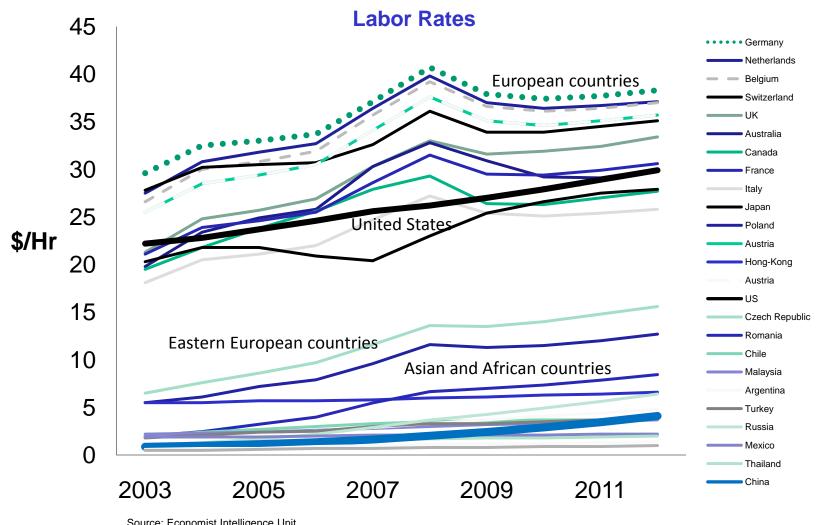
Manufacturing is outsourced more than services



Percent Outsourced, by Function

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Asia is the lowest-cost area for labor



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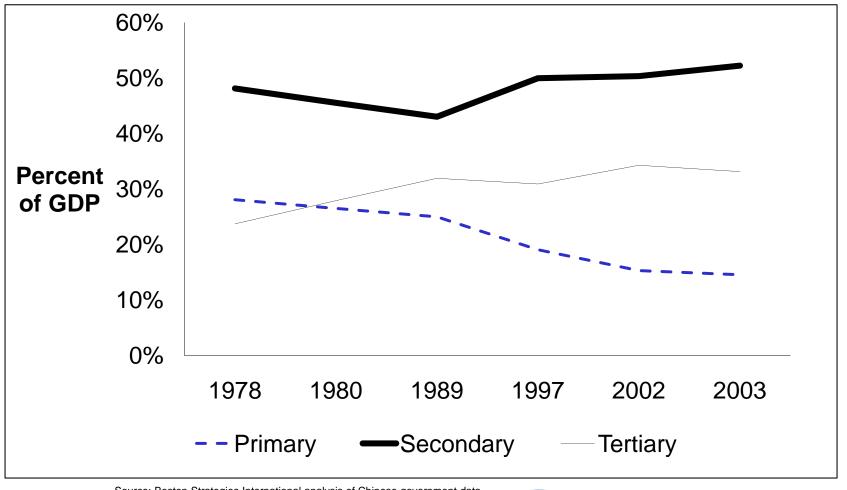
Source: Economist Intelligence Unit



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China's manufacturing sector is growing

Manufacturing as a Percent of GDP



Source: Boston Strategies International analysis of Chinese government data



Multinationals are migrating to China

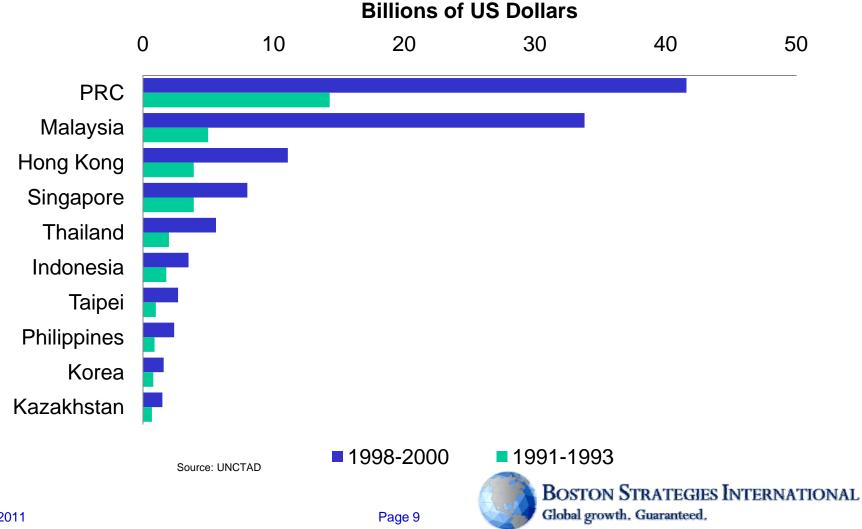
Recent Corporate Relocations

Corporation	Presence in Asia
Caterpillar	 Relocation of Asia-Pacific Operations headquarters from Tokyo, Japan to Beijing, China Vice President with administrative responsibility for manufacturing operations in Asia will relocate as well
General Motors	 Relocation of Asia-Pacific headquarters from Singapore to Shanghai \$253.7 million initiative with a Chinese partner
Goodyear	 Relocation of Asia-Pacific headquarters from the U.S. to Shanghai
Stora Enso	 Relocation of Asia-Pacific headquarters from Singapore to Shanghai, China
Visteon	 Relocation of Asian headquarters from Tokyo to Shanghai
Volkswagen	 Relocation of Asia-Pacific regional center from Wolfsburg to Beijing

Sources: Boston Strategies International analysis

Foreign direct investment is flowing into China

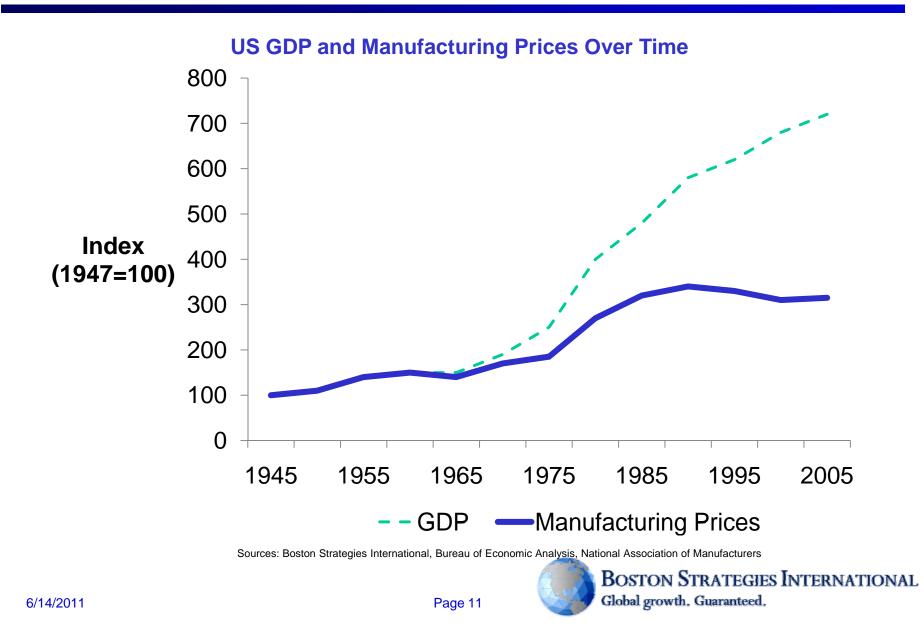
Foreign Direct Investment



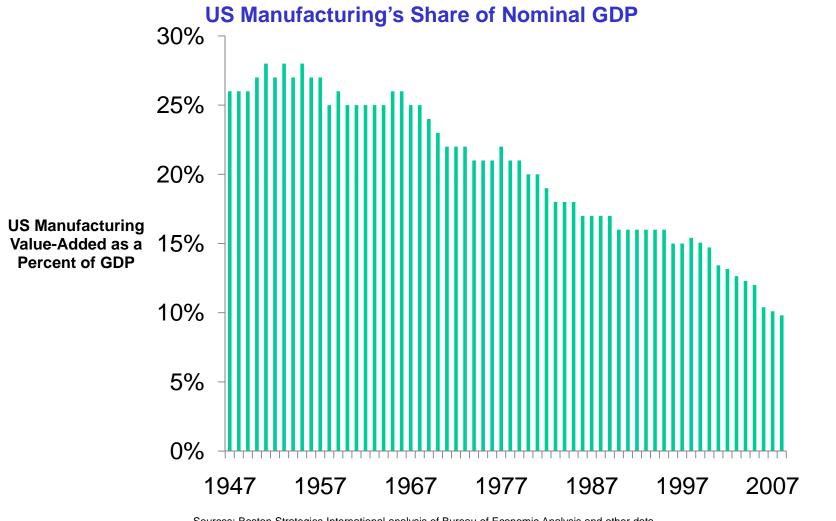
6/14/2011

Western manufacturing losing ground

Prices of US manufactured goods have gone flat



Mfg's share of the economy is shrinking



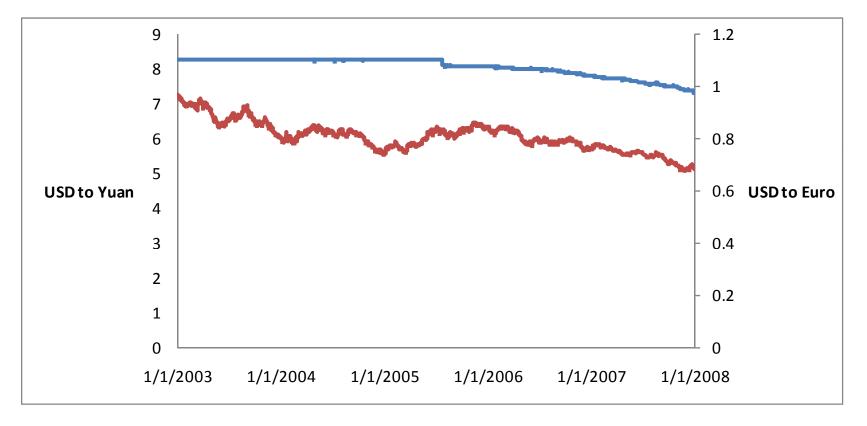
Sources: Boston Strategies International analysis of Bureau of Economic Analysis and other data



This problem won't go away

The weak dollar is helping to level the field

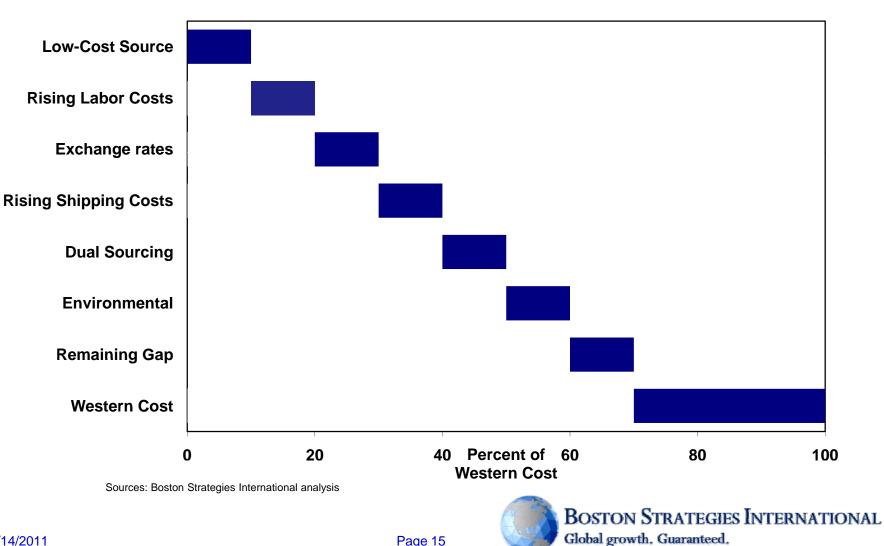
US Dollar Exchange Rate



Sources: Oando



The differential could shrink but won't disappear

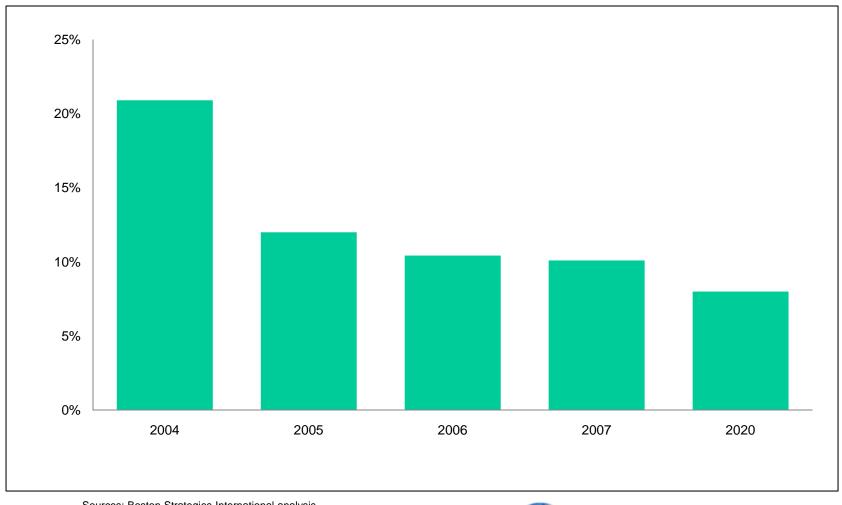


Difference Between Western and Emerging Economy Costs – Illustrative

6/14/2011

The trend is slowing, but will continue

US Manufacturing Contribution to GDP



Sources: Boston Strategies International analysis



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Repetitive MTS manufacturers are at risk

Propensity to Off-Shore by Supply Chain Type™

		FLOW/CONTINUOUS		BATCH/CELLULAR			
		Vessel/Railcar	TL/IM	Vessel/Railcar	TL/IM	LTL/Sm. Pkg/Air	
Make to Plan		1. Extraction		4. Make-to-Stock Manufacturing			
Make to Stock			Off	-Shoring	6. Distr	ribution	
Assemble to Order	RAW MATERIAL SOURCE		2. Process Manufacturing	Chiefing			CONSUMER
Make to Order				7. Re-Selling 5. Make-to-Order Manufacturing			
Engineer to Order		3. Enginee	r to Order	5. Make-to-Orde			

Sources: Boston Strategies International



Western manufacturing has a highgrowth opportunity

Manufacturing can be as profitable as services

25% 2003 2004 20% 2005 2006 15% 2007 2008 10% 2009 2010 5% 2011 2012 0% 2013 Secondary Tertiary Primary

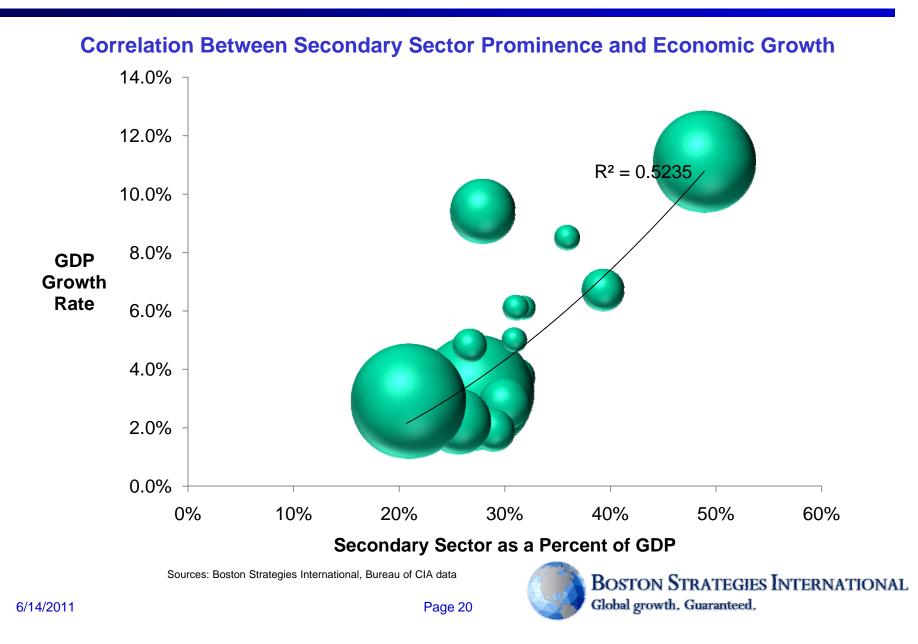
World Sales Growth Rate by Sector (2006 to 2007)

Sources: Boston Strategies International analysis of Global Insight data



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Manufacturing correlates with higher growth



A new model: knowledge-based services

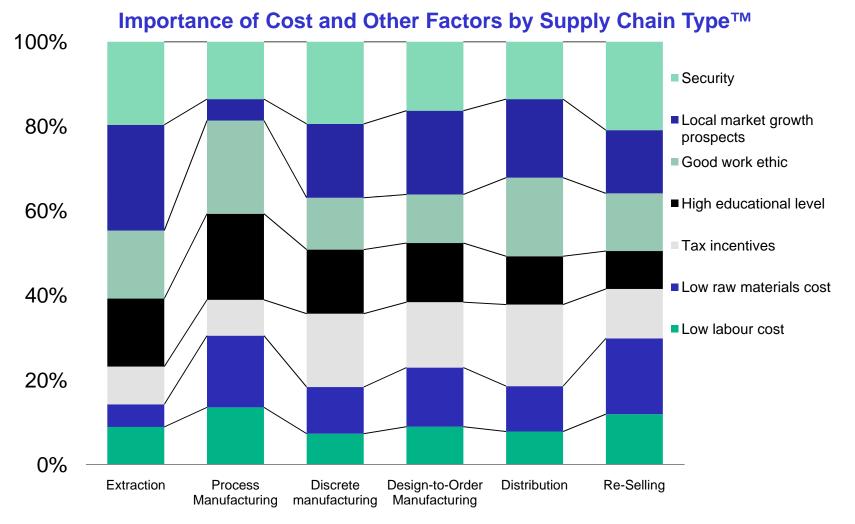
Stages of Economic Development

Characteristics	Preindustrial, Agrarian	Industrial	Postindustrial, Knowledge-based
Leading economic sector	Agriculture	Industry	Services
Nature of dominant technologies	Labor – and natural resource – intensive	Capital-intensive	Knowledge-intensive
Major type of consumer products	Food and hand-made clothes	Industrial goods	Information and knowledge services
Nature of most production processes	Human-nature interaction	Human-machine interaction	Human-human interaction
Major factor of economic wealth/growth	Nature's productivity (soil fertility, climate, biological resources)	Labor productivity	Innovation/intellectual productivity

Sources: World Bank



Low cost is only 30% of the equation



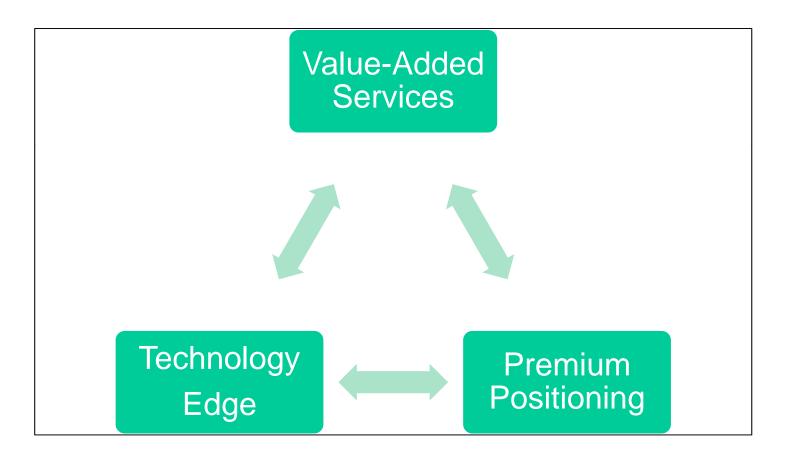
Sources: Boston Strategies International analysis



The art of high-cost country sourcing (HCCS)

The path toward differentiated manufacturing

The Services-Technology-Premium Cycle



Sources: Boston Strategies international



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Recommendations – Governing Boards

- Ensure a level playing field for CEO selection to include foreign nationals
- Promote skills in finance and negotiation in global contexts
- Focus business growth around core competencies; elevate Engineering and Marketing

Recommendations – CEOs

Recommendations by Supply Chain Type™

Supply Chain Type™	Strategy	
I. Extraction	 Move up the value chain 	
II. Process manufacturers III. Engineer-to-order manufacturers	 Offshore labor-intensive activities Outsource R&D Focus on premium 	
IV. Make-to-stock manufacturers V. Make-to-order manufacturers	 Value-added services Differentiate with value-added services Position as premium 	
VI. Distribution VII. Reselling	 Focus on Asia and Middle East marketing and sales 	

Recommendations – managers

- Build strong engineering skills
 - Do not overemphasize cost
- Enable employees to personalize, customize, and offer tailored value-added services
 - Through advanced information technology applications (esp. CRM)
- Position and brand as premium and high-quality
 - Differentiate you and your organization; prevent commoditization
- Know low-cost country environments personally
 - Open your mind to low-cost country travel and expatriate assignments



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- Supply Market Analysis that helps identify emerging issues that affect their supply chains
- Supplier Enablement that facilitates global growth and local content requirements
- Supply Chain Optimization that reduces project and life cycle costs



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