

ACG & EWA Webinar

US-China Trade Tariffs: Driving Companies to Expand Beyond China

October 15, 2019



- A leading provider of commercial, operational & risk management solutions and detailed implementation to western companies competing in the ever-changing China & Asia markets
- Founded in 2005 with offices in the USA and in China
- All EWA executives have lived in China & Asia and held senior management positions with P&L responsibilities for western MNCs with operations in China & Asia, including Briggs & Stratton (NYSE: BGG), Bechtel Corporation and Littelfuse, Inc. (NASDAQ: LFUS)
- Extensive experience in numerous key industries:

Automotive	General Manufacturing	Durable Goods
Metal Fabrication	Consumer Goods	Filtration & Separation Equipment
Chemicals	Packaging	Electronics
Semiconductors	Food & Beverage	Medical Devices
Specialty Metals	Laboratory Equipment	Food Technology
Energy & Natural Gas	Industrial Textile & Apparel	Costings & Building Materials

Corporate Strategy
Development

M&A Due Diligence

Risk Management

Performance
Improvement

Senior Management
Recruitment

Working
Environment
Efficiency

Location Services

Supply Chain
Management

Business
Assessment

Research Services



ALEX BRYANT

Founder & President

- Director of International Business Development for Barnhardt Manufacturing Company
- Attorney, Ogletree Deakins Nash Smoak & Stewart, P.C.



DAN MCLEOD

Director

- Former Asia Pacific Operations Director of Ashland Specialty Ingredients (NYSE: ASH)
- Former Director of Engineering for Hercules Asia Pacific



MARK PLUM

Director

- President of Briggs & Stratton Asia (NYSE: BGG)
- Vice President of Sales & Marketing, American Standard Thailand & American Standard China

- Today's webinar will focus on understanding how companies' perspectives and their retaliatory actions towards the US-China trade tariffs have changed since the trade tariffs were first imposed in March 2018 and what these changes mean for the future.
- The foundation for this analysis:
 - EWA survey of 200+ US manufacturers producing in / supplying from China: August 2018
 - EWA survey of 230+ US manufacturers producing in / supplying from China: August 2019
- The core objective of each survey was to explore how manufacturers perceive the potential impact of the US-China trade tariffs and what actions have / are being taken to mitigate risk to operations.
- Additionally, EWA will present 2 working example case studies of US companies expanding their manufacturing, supply chain and customer base into ASEAN, Central Eastern Europe and Mexico.



What Companies Are Saying About The Impact of the US-China Trade Tariffs

2018 Expectations

64%: The tariffs will have significant negative impact upon my business

58%: The tariffs will cause significant increases in my costs for raw materials & components

41%: The tariffs will create significant disruption to my business

2019 Realities

73%: The tariffs have had a moderate to severe negative impact upon my business

82%: The tariffs have caused moderate to severe increases in my costs for raw materials & components

65%: The tariffs have created moderate to severe disruption to my business

2018 Expectations

- 65%:** The greatest threat of disruption caused by the trade tariffs is on supply chains
- 13%:** The greatest threat of disruption caused by the trade tariffs is on manufacturing
- 22%:** The greatest threat of disruption caused by the trade tariffs is equal on supply chains & manufacturing

2019 Realities

- 32%:** The greatest disruption caused by the trade tariffs was on supply chains
- 27%:** The greatest disruption caused by the trade tariffs was on manufacturing
- 41%:** The greatest disruption caused by the trade tariffs was on equal on supply chains & manufacturing

2018 Actions

48%: My company has implemented counteractive measures to offset the impact of the US-China tariffs

27%: My company is currently considering to implement counteractive measures to offset the impact of the US-China tariffs

2019 Actions

69%: My company has implemented counteractive measures to offset the impact of the US-China tariffs

43%: My company is currently considering to implement counteractive measures to offset the impact of the US-China tariffs
(34% = additional measures)
(9% = first time measures)

2018 Actions

- 1:** Internal Cost Cutting
- 2:** Temporarily Shifting Production
- 3:** Pre-Payment to Offset Costs
- 4:** Global Supply Chain Optimization
- 5:** Temporarily Dropping Product Lines

2019 Actions

- 1:** Global Supply Chain Optimization
- 2:** Global Manufacturing Footprint Optimization
- 3:** Global Customer Base Expansion
- 4:** Process Optimization
- 5:** Organizational Re-Design

2018 Expectations

- 57%:** The trade tariffs will drive companies to move from / expand beyond China
- 41%:** The tariffs will drive companies to relocate manufacturing operations outside China
- 84%:** The tariffs will drive companies to establish supply chains outside China
- 1%:** The tariffs will drive companies to expand customer bases outside China

2019 Expectations

- 86%:** The trade tariffs will drive companies to move from / expand beyond China
- 69%:** The tariffs will drive companies to relocate manufacturing operations outside China
- 63%:** The tariffs will drive companies to establish supply chains outside China
- 16%:** The tariffs will drive companies to expand customer bases outside China

Key Learnings

- Companies still see cost increases as an important issue but no longer as the top issue
 - Focus change in actions: From cost management to operational optimization
- Companies are experiencing greater disruption than expected
 - Focus change in actions: From supply chain oriented to a more comprehensive approach
- Companies are less optimistic about a timely end to the trade war & the prolonged negative impact
 - Focus change in actions: From “stop gap” measures to long-term (permanent) strategies
- Companies view relocating from or expanding beyond China as a viable method to mitigating the impact of the US-China trade tariffs
 - Focus change in actions: From a selected few to a vast majority

An aerial view of a city skyline, likely Shanghai, featuring prominent skyscrapers like the Oriental Pearl Tower and the Shanghai Tower. The image is semi-transparent, allowing the text to be clearly visible over it.

Comprehensive, Long-Term, Global Optimization: The New Normal

Comprehensive, Long-Term, Global Optimization

**Global
Manufacturing
Footprint
Optimization**

**Global
Supply
Chain
Optimization**

**Global
Customer
Base
Optimization**

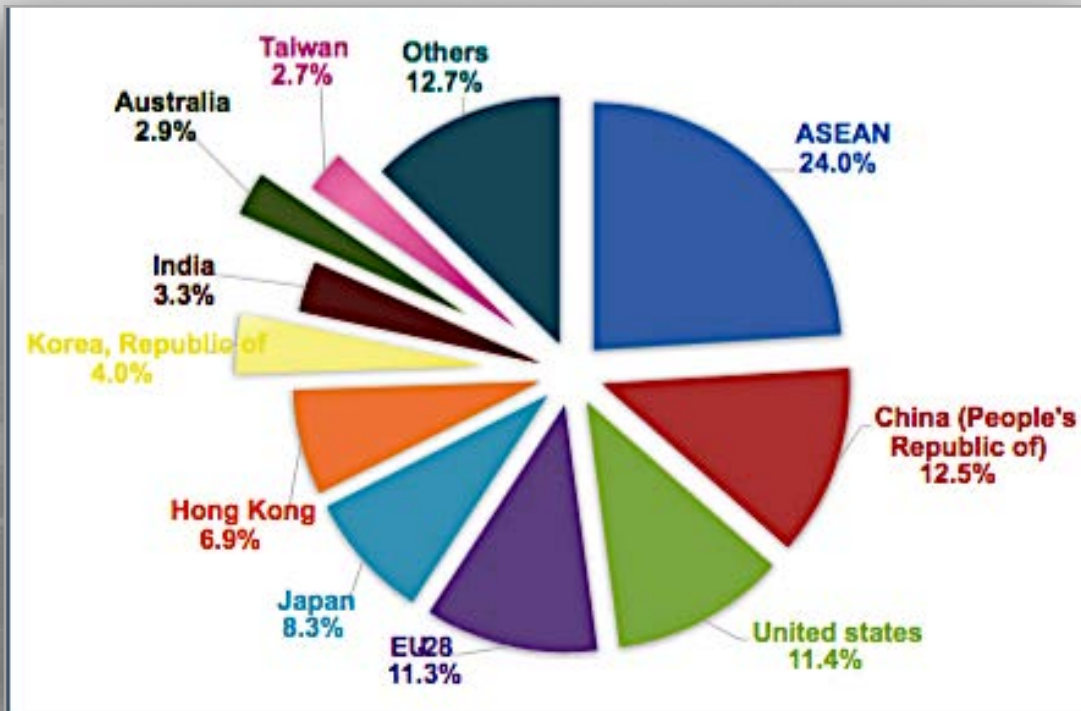
Changes the focus from being strictly counteractive in nature to also being about identifying & leveraging opportunities for growth development and risk diversification



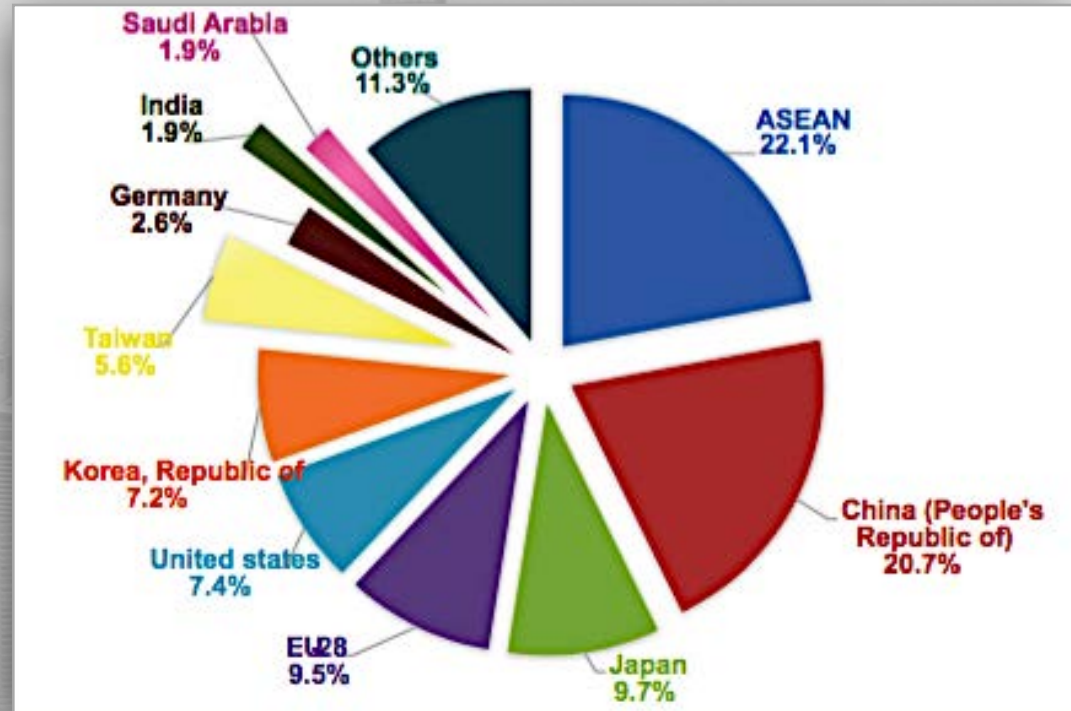
From Vision To Reality
Focus on 3 Key “New” Global Markets



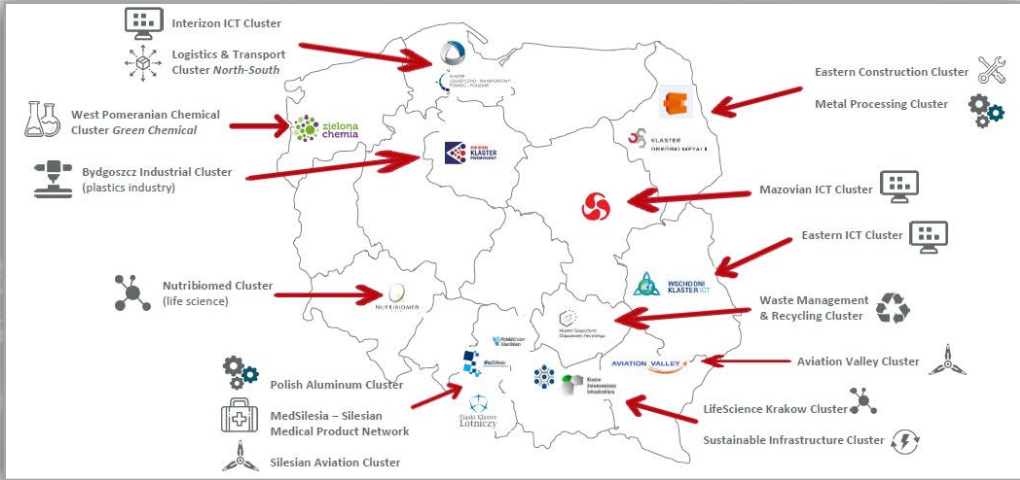
ASEAN Markets of Exports of Goods



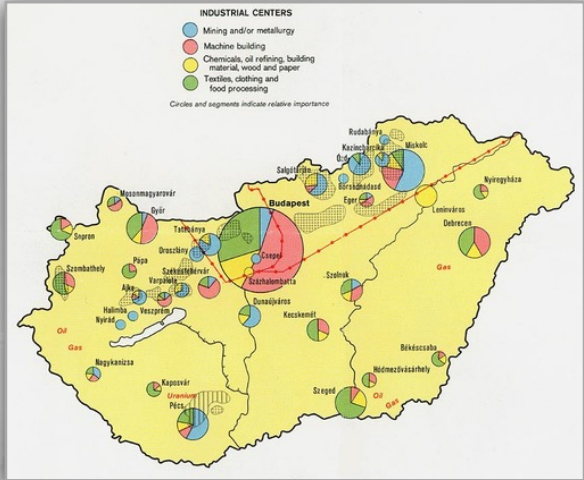
ASEAN Markets of Imports of Goods



V4: Diversified Manufacturing Expertise



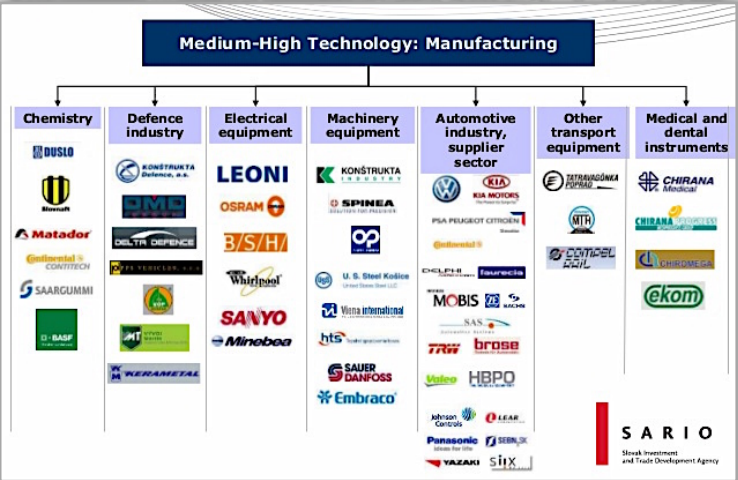
Poland



Hungary

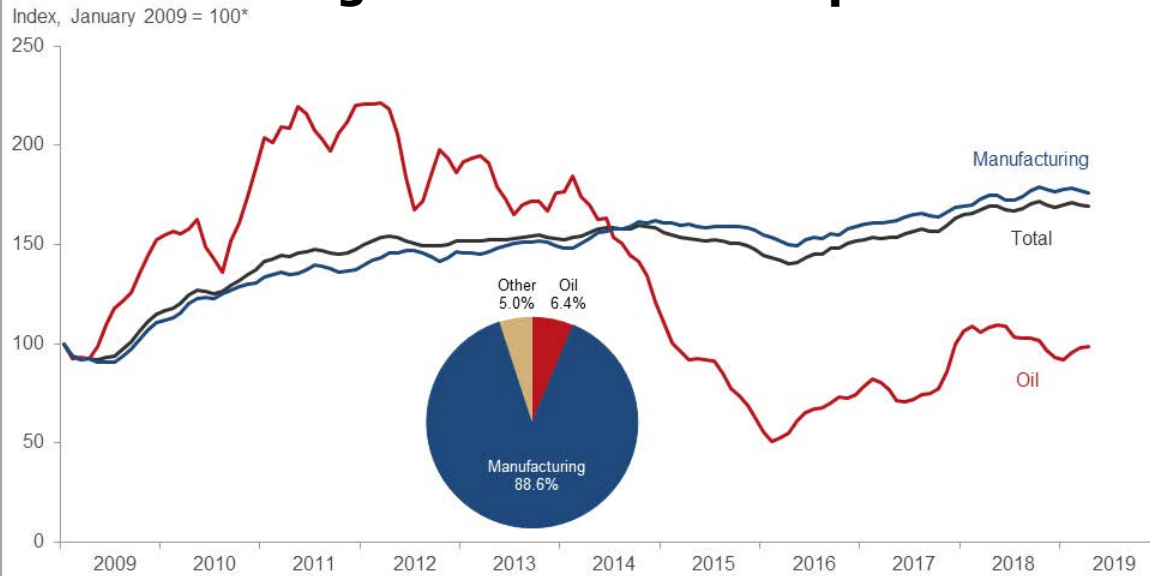


Czech Republic



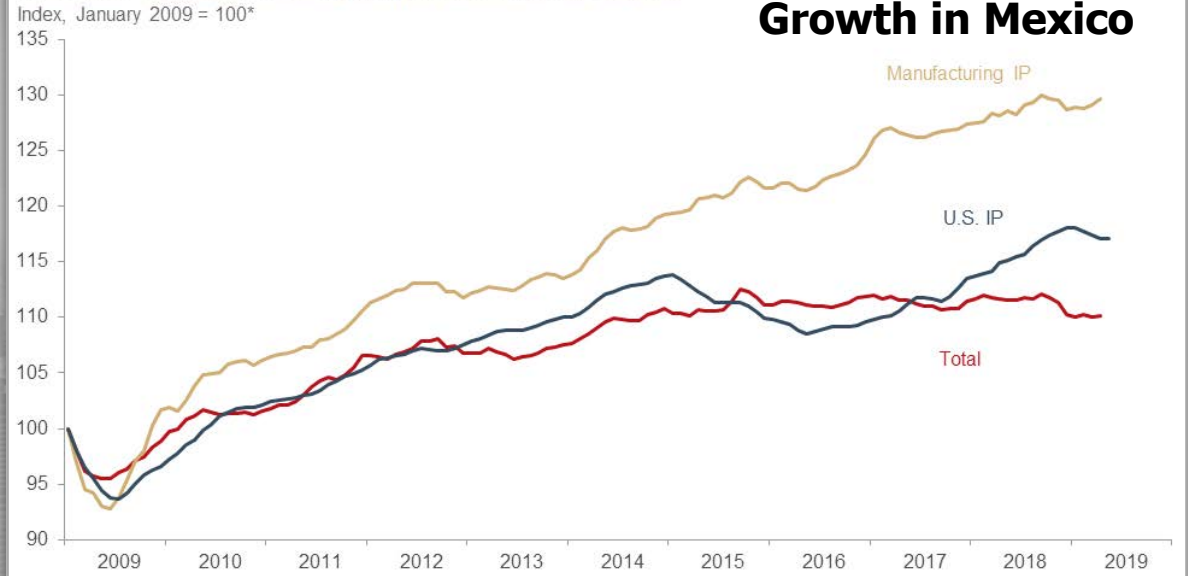
Slovakia

Manufacturing Drives Mexico's Export Growth



*Seasonally adjusted, three-month moving average; real dollars.
 NOTES: All data are through April 2019. The pie chart reflects the share of total exports year to date in 2019.
 SOURCE: Instituto Nacional de Estadística y Geografía (National Institute of Statistics and Geography).

Manufacturing Industrial Production Pushes Market Growth in Mexico



*Seasonally adjusted, three-month moving average.
 NOTES: Data for Mexico's manufacturing and total industrial production (IP) are through April 2019. Data for U.S. IP are through May 2019.
 SOURCES: Instituto Nacional de Estadística y Geografía (National Institute of Statistics and Geography); Federal Reserve Board.



EWA Case Study
Global Manufacturing Footprint, Supply Chain & Customer Base Expansion:
ASEAN

- Wisconsin-based global manufacturer with operations in the US, China & Europe
- The Chinese manufacturing facility was located in the Fujian Province and in operation for 5 years
- Business had been growing 12-15% for the last 3 to 5 years
- The company was operating at maximum production capacity
- Given their growth in China/Asia Pacific, a significant increase in production capacity was mandatory
- The manufacturer required a new facility approximately 10 times larger than their current facility
 - Factory was to be approximately 200,000 square feet
 - Located on a 400,000 to 500,000 square foot site
 - 200 employees (150 production staff & 50 management/engineering)
- Although satisfied with the Fujian Province, the client accepted the EWA proposal to also investigate the benefits of an expansion into the ASEAN market

The Process

Step 1: Identifying the expansion criteria

- Company analysis
 - 15% of their entire Asian consumption was consumed in China
 - Sales projections indicated strong growth
 - Price is a major influencer within the competitive environment
 - Large products with labor intensive production process
- Expansion criteria: labor supply/costs, government incentives, inflation rates, availability of raw materials, transport & export logistics, supply chain vendor availability

Step 2: An in-depth comparative analysis of 6 selected countries

- Philippines, Malaysia, Indonesia, Vietnam, Thailand & China
- Weighted areas of focus:
 - Government incentives, labor supply/costs, inflation rates, availability of raw materials, land costs, utility costs, ease of doing business, corruption index, domestic market size, transport & export logistics
- Expansion recommendation: Thailand

The Process

Step 3: On the ground interaction

- Met with two of the largest industrial zone developers, visited 5 potential sites & selected 2 sites for soil testing
- Negotiated conditions for property purchase & property management (waste removal, perimeter security, etc.)
- Negotiated investment incentives with Secretary General of Royal Thailand Board of Investment
- Interviewed, evaluated & qualified:
 - 3 architect and engineering firms
 - 3 general contractors
 - 4 project management firms
 - 3 executive recruiters and manpower staffing firms capable of staffing the 200 person facility
- Qualified local Thai vendors to support the company's manufacturing location
- Met with local legal and accounting firms to identify the necessary criteria for establishing a business entity
- Presented a 360° recommendation to the US Board of Directors which was approved for implementation

Step 4: Hands-on implementation

- Property was purchased and all pre-construction permits/licenses/registrations were acquired by October 2017
- Plant designs, construction budget/timeline & all construction partner contracts were finalized in November 2017
- Plant and equipment installation began in January 2018 and was completed in April 2019
- Identification and recruitment of supply chain, distribution & logistics partners was completed in February/March 2019

Government Incentives

- 8 year tax holiday from CIT, 50% for an additional 5 years

Cost Reduction*

- \$22.0M tax savings over 10 years
- \$4.3M annual labor savings after 5 years
- \$1.8M annual raw material savings after 3 years
- \$120/unit average freight savings

Market Growth Development*

- 42% increase in sales over 5 years
- 53% increase in revenue over 5 years

*Company Forecasts



EWA Case Study
Global Manufacturing Footprint, Supply Chain & Customer Base Expansion:
V4 & Mexico

- Client is an Illinois-based manufacturer of consumer products with operations in US and China
- Approximately half of manufacturing was relocated to China in mid-2000's to reduce costs; achieved 40% cost reductions initially
- Business has continued to grow, with strong growth in Europe to 35% of total.
- The European Market was supplied from both the US and China.
- This created several challenges:
 - Cost advantage of China had decreased with escalating labor, energy, and raw material costs
 - Logistics costs had risen to >25% of product cost
 - Inventories were excessive, averaging 5 months supply
 - Prices for key raw materials became significantly higher in US
 - Responsiveness to changes in demand very slow as a result of long supply chain

Background 2

- Volume growth had absorbed available production capacity in China. The client was faced with investing in new production assets to meet the demand.
- The introduction of tariffs added a \$40MM cost to continuing to supply from China
- The client completed a cost analysis indicating significant opportunities by localizing European supply and outsourcing component supply to Mexico.
- EWA was engaged to:
 - Validate the savings assumptions (from previous 3rd party economic analysis)
 - Develop and implement **European manufacturing & supply chain footprint strategy** (conduct multiple country analysis, select site for a new factory, negotiate tax incentives, oversee construction of the new facility, hire local senior management, evaluate existing DCs and qualify local suppliers)
 - Develop and implement **Mexican manufacturing & supply chain footprint strategy** (qualify local suppliers, assess assembly operations, identify 3rd party logistics providers, negotiate tax incentives, hire local senior management and evaluate existing DCs)

The Process – Eastern Europe

Step 1: Identify the Expansion Criteria

- Validated client cost savings and feasibility assumptions around relocating production to CEE
- Worked with client to develop a phased approach that front-loads savings into the initial investment, while allowing for expansion
- Developed requirements for property that will support the phased approach

Step 2: Location Strategy Development

- Scorecard was developed prioritizing client requirements
 - Technical/Professional Labor Supply/Cost
 - Transport Logistics
 - Access to established Supplier Base
 - Government Incentives
 - Ease of Doing Business – transparency, local support
 - Speed of Project Execution
- Information gathered through EWA local staff, desktop research, external research, face-to-face meetings with government agencies, property developers, HR service providers.
- **Recommendation of southern Poland**

The Process – Eastern Europe

Step 3: Selection Process

- Visited and Evaluated 13 Potential Sites, Short-listed 6 sites for negotiation
- Evaluated purchase vs lease options
- Negotiated conditions of property purchase, property management
- Met with local government agencies, legal and accounting firms to 'roadmap' process for establishing business entity
- Assisted client with application for investment incentives and negotiated incentives with regional government
- Interviewed, Evaluated and Recommended
 - Engineering and Design Firms
 - Property Developers
 - General Contractors
 - Executive Recruiters and Staffing Firms
- Provided analysis and recommendation to senior management which was accepted by Board of Directors

Step 4: Hands-On Implementation

- Coordinated selection of engineering, construction management, and general contractor for the new site
- Provided Owners Representative on site through the construction
- Identified local component suppliers and assisted with qualification to establish the supply chain for the new factory
- Selected HR partner; assisted with recruiting site management
- Equipment installation and commissioning of new facility
- Insured inspections and approvals of new factory were completed in timely manner

The Process – Mexico

Step 1: Define specific project objectives and requirements

- Extensive interviews with senior management and project technical team
 - Overall company background and objectives for the project
 - Understand products, process and cost breakdown.
- Volume requirements, growth plans
- Develop a strong working relationship and communications

Step 2: Deploy formal process and develop core elements for analysis

- Identify Products to be considered for outsourcing
 - One product line represented nearly half of units supplied from China
 - 90% of components for this product were outsourced and then assembled in-house
- Perform high level evaluation of product cost
 - Which components to source in Mexico?
 - Where to assemble the product?
- Strategy Development
 - 80% of component spend can be supplied from Mexico
 - Strong supplier base for stamping, coating, injection molding
 - Assembly to be done in Mexico to take advantage of 1) lower labor costs 2) good logistics to DC's in the US
 - Assembly operation (rather than manufacture in-house) fastest to implement

The Process – Mexico

Step 3: ID potential suppliers and obtain analytical data

- Identified potential component suppliers within Mexico
 - Desktop research, government agencies, EWA local staff experience
- Detailed, standardized template developed for Supplier Qualification
 - Completed by each potential supplier candidate
 - Technical specifications shared, including QC and testing procedures
- Interviews to develop “short list” of suppliers
- Each finalist required to provide extensive, detailed project proposals with:
 - Projected unit costs
 - Quality Control plans, Failure history
 - Productivity commitments/price breaks for increased volumes
 - Samples for performance and life-cycle testing
- **Followed similar process for identifying and qualifying 3rd Party Logistics providers for:**
 - Inbound Freight Management from Suppliers
 - QA Inspection/Return of Non-Conforming Products
 - Warehousing
 - Assembly and Packaging
 - Freight Forwarding and Customs

The Process – Mexico

Step 4: Final Negotiation and Recommendation

- **Final negotiations conducted with suppliers:**

- Initial unit manufacturing cost, payment terms, and projected productivity improvements
- Sharing of productivity/volume benefits
- Inventory holding/stocking
- Lead times/forecasting requirements
- Warrantee/Failure Policies

- **Negotiated Value-Add services from 3PL in addition to warehousing and shipping:**

- Provide incoming QA Inspection
- Manage QA return process
- Monitor and expedite deliveries from suppliers (minimize language difficulties)
- Assemble and package product
- Ship to customers or distribution centers in USA

- **Recommendation accepted by client management**

Poland – New Plant

Cost Reduction

- \$3.3M annual logistics cost savings
- \$3.0M annual labor savings after 3 years
- \$7.4M annual raw material savings after 3 years
- \$12.6M tax savings over 10 years

Other Benefits

- \$15M inventory reduction
- Greatly improved responsiveness to market demand changes in Europe

Mexico - Outsourced Product Line

Cost Reduction

- Reduced inventory vs China (\$21MM cash) and shorter lead times, better cash flow
- Cost reduced 5% (\$6MM) vs sourcing from USA, with potential for additional reductions
- Eliminated tariff impact
- Lower landed cost vs USA for major components, raw material and freight

Other Benefits

- Good quality outsourced assembly and packaging
- Elimination of 2 DC's from proximity to Western USA customers
- Response to NA demand changes improved

Contact Information

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