

A world map with a focus on Asia, showing trade routes and supply chain connections. The map is rendered in a light blue and white color scheme. The title text is overlaid on the map, centered horizontally and vertically. The text is in a bold, black, sans-serif font. The map shows the outlines of continents and major trade routes, with a particular emphasis on the Asian continent and its surrounding regions. The title text is: 

*THE EFFECTS OF INCREASED ASIAN TRADE  
ON THE MODERN GLOBAL SUPPLY CHAIN*

# *THE EFFECTS OF INCREASED ASIAN TRADE ON THE MODERN GLOBAL SUPPLY CHAIN*

- FACTS OF ASIA
- TRADE ON THE SILK ROAD
- MODERN TRADE WITH ASIA
- EFFECTS OF INCREASED TRADE
- POSSIBLE SOLUTIONS
- CONCLUSION

# FACTS OF ASIA

- The word **Asia** originated from the Ancient Greek word Ἀσία, first attributed to Herodotus (about 440 BCE) in reference to Anatolia or to the Persian Empire, in contrast to Greece and Egypt. It originally was just a name for the east bank of the Aegean Sea, an area known to the Hittites as Assuwa (National Geographic Society, 2017).
- The continent of Asia consist of 48 different nations.
- Turkey and Russia have land that borders on Europe
- About 16,000,000 sq. mi. (41,440,000 sq. km)
- Asian countries borders with Pacific, Arctic, Indian Oceans  
(Central Intelligence Agency, 2017)

# FACTS OF ASIA

- Six additional countries not recognized by the United Nations but that possess different recognition status also carry the acknowledgment of resting the Asian region (Central Intelligence Agency, 2017)
- Asia covers 30% of the Earth's land area and continues 60% of the world total population (National Geographic Society, 2017)
- Sub regions of Asia consist of Western Asia, Central Asia, Southern Asia, Eastern Asia, Southeastern Asia, and Northern Asia (National Geographic Society, 2017)

# MAP OF ASIA



# FACTS OF ASIA

- Resources located in Asia are petroleum, aluminum, gold, tin, iron ore, minerals such as barite (used in drilling fluids), chromium (used in steel production and dyes), and manganese (used in steel production).
- During the past 10 years, Asia has increased its forest cover by 30 million hectares (74 million acres) to create forest plantations where trees can be intensively managed for higher-yield production.
- Asia's marine fishing areas produced roughly 50 percent of the global fish capture. Six of the top 10 world producers of fish are found in Asia: China, Indonesia, Japan, India, Philippines, and Myanmar (Burma). Asia also produced about 90 percent of the world's aquaculture-raised fish in 2008.

(National Geographic Society, 2017)

# FACTS OF ASIA

- Three quarters of world purchasing power and over 95% of world consumers are outside America's borders. The Peterson Institute analysis also estimated that elimination of remaining global trade barriers would increase the benefit America already enjoys from trade by another 50%. Trade remains an engine of growth for America (Office of the United States Trade Representative, 2017)
- In the next 15 to 20 years Asia should account for over 50% of the world's economic growth with the expected tripling of the Asian middle class, to an estimated 1.75 billion people (Geib & Pfaff, 2015)

# FACTS OF ASIA

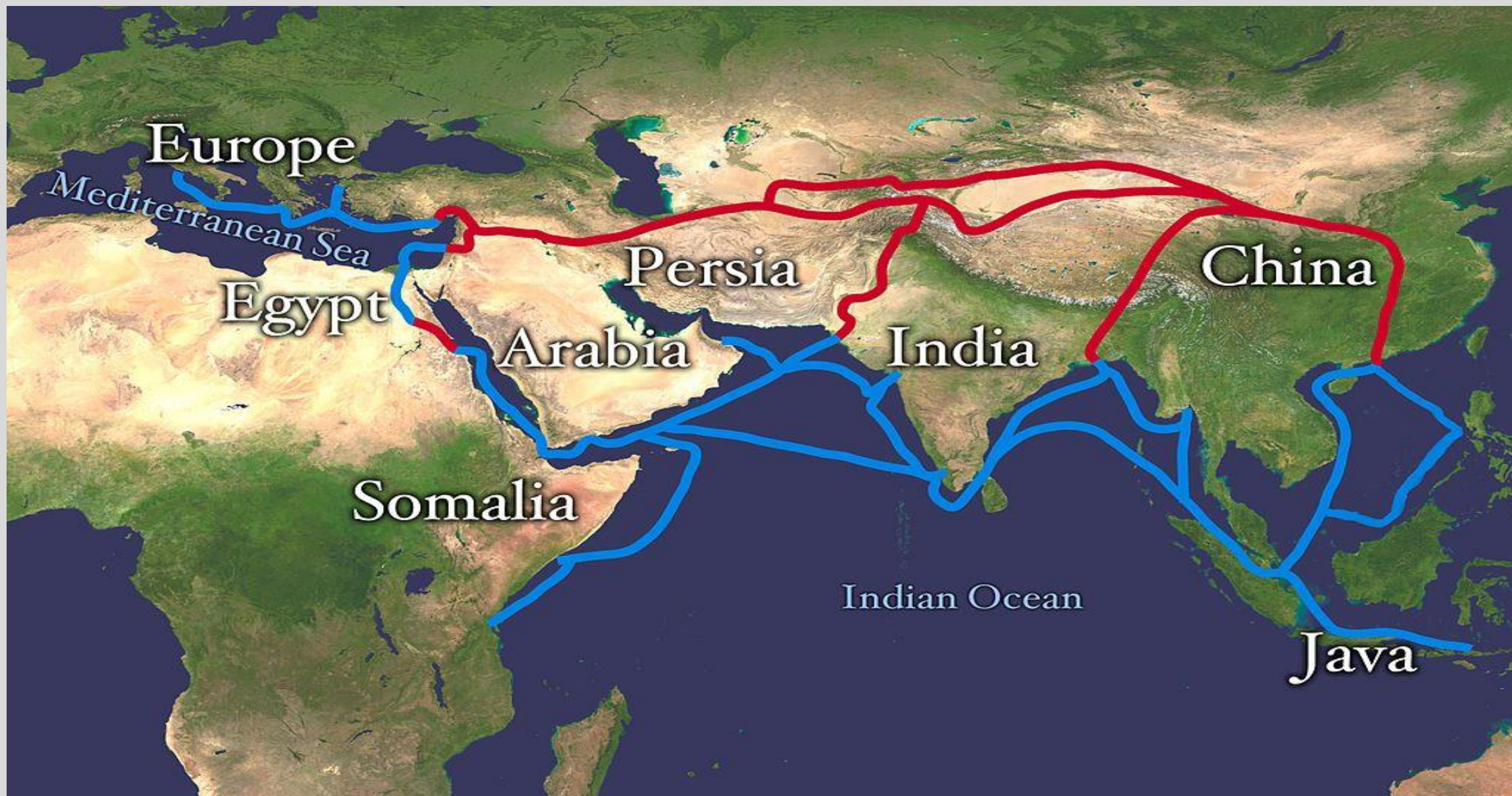
- The rise of Asian consumers growing ability to purchase goods and services from global vendors, stimulates the increase of trade that requires the establishment and maintenance of a robust supply chain to support the flows of goods (Shepherd & Hamanaka, 2015)
- Childress (2016) stated that efficient supply chains enable the establishment of global competition that permits for the continuous flow of goods and services from origin to final destination



# HISTORICAL FACTS-TRADE WITH ASIA

- The Silk Road offered the trading routes through Asia into Europe and Africa that is an estimated 1500 hundred years old (Xu, 2016)
- The network of routes used began approximately 130 BCE, when the Han Dynasty of China opened trade with the west. The used ended in 1453 CE, when the Ottoman Empire boycotted trade with the west and closed the routes (Durate, 2014)
- Routes consisted of overland and maritime (National Geographic Society, 2017).
- Because silk was the major trade product which traveled on this road, it was named the Silk Road in 1877 by Ferdinand von Richthofen a German geographer ( National Geographic Society, 2017)

# SILK ROAD ROUTES



## MODERN TRADE WITH ASIA

- World Shipping Council (2017) identified the top 50 container seaports of the world
- 15 of the top container seaports are located in the Asian region
- 9 out of 15 container seaports are located in China
- World Shipping Council (2017) listed the most used routes using 2013 statistical data. Asia-North America, Asia-North Europe, Asia-Mediterranean, and Asia-Middle East

# MODERN TRADE WITH ASIA

- There are almost 500 liner shipping services providing regularly scheduled service (usually weekly) that enable goods to move between ports along the many trade routes of the world. 254 liner shipping services are dedicated to move cargo to and from Asian region. Information collected in 2013 ( World Shipping Council, 2017)
- Following charts display the volume of TEU per seaport

# MODERN TRADE WITH ASIA

Rank	Port	Volume 2015 (Million TEU)	Volume 2014 (Million TEU)	Volume 2013 (Million TEU)	Volume 2012 (Million TEU)	Volume 2011 (Million TEU)	Website
1	Shanghai, China	36.54	35.29	33.62	32.53	31.74	<a href="http://www.portshanghai.com.cn">www.portshanghai.com.cn</a>
2	Singapore	30.92	33.87	32.6	31.65	29.94	<a href="http://www.singaporepsa.com">www.singaporepsa.com</a>
3	Shenzhen, China	24.20	24.03	23.28	22.94	22.57	<a href="http://www.szport.net">www.szport.net</a>
4	Ningbo-Zhoushan, China	20.63	19.45	17.33	16.83	14.72	<a href="http://www.mardep.gov.hk">www.mardep.gov.hk</a>
5	Hong Kong, S.A.R., China	20.07	22.23	22.35	23.12	24.38	<a href="http://www.mardep.gov.hk">www.mardep.gov.hk</a>
6	Busan, South Korea	19.45	18.65	17.69	17.04	16.18	<a href="http://www.busanpa.com">www.busanpa.com</a>
7	Qingdao, China	17.47	16.62	15.52	14.50	13.02	<a href="http://www.qdport.com">www.qdport.com</a>
8	Guangzhou Harbor, China	17.22	16.16	15.31	14.74	14.42	<a href="http://www.gzport.com">www.gzport.com</a>

# MODERN TRADE WITH ASIA

9	Jebel Ali, Dubai, United Arab Emirates	15.60	15.25	13.64	13.30	13.00	<a href="http://www.dpworld.ae">www.dpworld.ae</a>
10	Tianjin, China	14.11	14.05	13.01	12.30	11.59	<a href="http://www.ptacn.com">www.ptacn.com</a>
11	Rotterdam, Netherlands	12.23	12.30	11.62	11.87	11.88	<a href="http://www.portofrotterdam.com">www.portofrotterdam.com</a>
12	Port Klang, Malaysia	11.89	10.95	10.35	10.00	9.60	<a href="http://www.pka.gov.my">www.pka.gov.my</a>
13	Kaohsiung, Taiwan, China	10.26	10.59	9.94	9.78	9.64	<a href="http://www.khb.gov.tw">www.khb.gov.tw</a>
14	Antwerp, Belgium	9.65	8.98	8.59	8.64	8.66	<a href="http://www.portofantwerp.com">www.portofantwerp.com</a>
15	Dalian, China	9.45	10.13	10.86	8.92	6.40	<a href="http://www.dlport.cn">www.dlport.cn</a>

# MODERN TRADE WITH ASIA

Top Trade Routes (TEU shipped) 2013

Route	West Bound	East Bound	North Bound	South Bound	Total
Asia-North America	7,739,000	15,386,000			23,125,000
Asia-North Europe	9,187,000	4,519,000			13,706,000
Asia-Mediterranean	4,678,000	2,061,000			6,739,000
Asia-Middle East	3,700,000	1,314,000			5,014,000
North Europe-North America	2,636,000	2,074,000			4,710,000
Australia-Far East *			1,072,016	1,851,263	2,923,279
Asia-East Coast South America			621,000	1,510,000	2,131,000
North Europe/Mediterranean-East Coast South America			795,000	885,000	1,680,000
North America-East Coast South America			656,000	650,000	1,306,000

# MODERN TRADE WITH ASIA

ROUTE	SERVICES
Far East- North America	73
North Europe- Far East	28
Far East- Mediterranean	31
North Europe- North America	23
Mediterranean- North America	21
Europe- Mid- East/ South Asia	40
North America-Mid-East/South Asia	10
Far East- Mid- East/South Asia	72
Australasia	34
East Coast South America	26
West Coast South America	48
South Africa	24



# MODERN TRADE WITH ASIA

- Airport Council International (ACI) rated the air cargo airports of the world
- Of the twenty cargo airports facilities rated, 10 are located in the Asia region (ACI , 2017)
- Cargo throughputs at airports in Asia-Pacific and Middle East grew 10.9% and 10.4% respectively in December 2016, with full year increases of 4.5% for Asia-Pacific and a rise of 5.8% in the Middle East (ACI, 2017)
- National Air Traffic Controllers Association (2017) stated that at any given day there are approximately 2,148 air cargo flights (Federal Express, UPS, etc.) in the skies above the United States

# MODERN TRADE WITH ASIA

Last update :

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## Cargo Volume

Loaded and unloaded freight and mail in metric tonnes

		Total	%Chg
1	HONG KONG, HK (HKG)	394 000	1.0
2	MEMPHIS TN, US (MEM)	364 525	(1.2)
3	SHANGHAI, CN (PVG)	289 862	1.6
4	LOUISVILLE KY, US (SDF)	258 946	4.2
5	DUBAI, AE (DXB)	218 408	5.2
6	INCHEON, KR (ICN)	217 942	(0.3)
7	ANCHORAGE AK, US (ANC)	213 940	(2.6)
8	MIAMI FL, US (MIA)	183 626	(0.3)
9	BEIJING, CN (PEK)	177 897	4.0
10	TOKYO, JP (NRT)	173 941	(3.7)
11	FRANKFURT, DE (FRA)	171 606	(1.0)
12	LOS ANGELES CA, US (LAX)	167 669	1.9
13	TAIPEI, TW (TPE)	167 502	(10.0)
14	SINGAPORE, SG (SIN)	167 300	3.2
15	PARIS, FR (CDG)	165 434	0.7
16	CHICAGO IL, US (ORD)	147 662	0.4
17	GUANGZHOU, CN (CAN)	141 113	5.4
18	AMSTERDAM, NL (AMS)	139 074	0.9
19	LONDON, GB (LHR)	139 019	1.8
20	DOHA, QA (DOH)	132 054	

## MODERN TRADE WITH ASIA

- The United States imported a total of \$9,021,971,000,000 and exported \$4,093,432,000,000 from the various countries composing the Asian zone (United States Census Bureau, 2017)
- Sheppard(2016) stated that the rapid economic growth of Asian economies are following the examples of Europe and the United States along the market-oriented trajectory of globalizing capitalism

# MODERN TRADE WITH ASIA

- However, the economic growth of Asian nations are lessened by lack of proper infrastructure, cross-border cooperation and transit, policy barriers, internal connectivity, delays caused by criminal activities, and the emergence of “green” supply chain (Shepherd & Hamanaka, 2015)
- By 2050, Asia could double its share of the global GDP to 52% (Oehler-Sincai, 2014)
- Sheppard (2016) argued that Asia's trade emergence is based on making global connections that take advantage of the modern supply chain, but through the use of the global supply chain, Asia is creating and causing changing effects to the global teleology of geopolitics and geo-economics

# MODERN TRADE WITH ASIA

- Information technology(IT) and transportation technology (TT) serve as the anchors that permit the competent and productive flow of goods from manufacturer (Upstream) to the final consumers (downstream) (Childress, 2016)
- For organizations to succeed in today's global business environment, the integration of IT and TT become an essential part of any organization's comprehensive strategic business plan (Zhang, Gunasekaran, Wang, 2015).
- Integration requires the collaboration and process integration between buyers, sellers, and manufacturers that stresses the flow of materials, exchange of information, and an accurate management of financial obligations (Shepherd, &Hamanaka, 2015)

# MODERN TRADE WITH ASIA

- Firms need to create an alignment between the supply chain strategy and the IT and TT responsible for the management of the supply chain (Ke, Windle, Han, & Britto, 2015)
- Through the integration of IT & TT the supply chain the flow should become sustainable and eliminate uncertainties (Busse, Meinlschmidt, & Foerstl, 2017)
- However, Asian integration of IT and TT encounters difficulties and challenges forcing delays or loss of opportunities to connect people to markets, and buyers to sellers (Shepherd & Hamanaka, 2015)

# MODERN TRADE WITH ASIA

- Asian countries suffer from a number of shortcomings in the supply chain that occur because of hurdles and gaps created by the differences between the more developed and the less developed Asian economies causing obstacles for an efficient supply chain integration of the region (Banomyong, 2012)
- Ranjit (2015) observed that integration performance depends on the political environment, infrastructure provisions, regulations and development of services, and facilitation of global trade.

# MODERN TRADE WITH ASIA

- Banomyong (2012) indicated that the common characteristics affecting Asian supply chain are:
  - 1) Lack of modal integration capacity in terms of infrastructure
  - 2) The improvement of intra- and inter-agency coordination
  - 3) Low levels of logistics service quality
  - 4) Lack of managers with adequate knowledge and skills of supply chain integration
  - 5) Assess trade-offs between cost against service quality
  - 6) The inadequate ability to track and trace consignments



# EFFECTS OF INCREASE TRADE

- King (2017) indicated that the Civil Aviation Government of India recommended in 2016 that an electronic platform permitting the digitization of key stakeholder interaction; the platform would increase the processing of air shipments, cut cost, grant transparency and consistency across the supply chain
- Asian government ministries or state agencies that govern the supply chain infrastructure view the supply chain as a complex apparatus and because of the complexity tend to lack in creating coordinate policy making regulations that ease the integration of the systems administering the supply chain (Banomyong, 2012)

# EFFECTS OF INCREASE TRADE

- Makhoulf(2016) noted that government need to enact policies that permit the importation of modern technology that assist in the integration of services and infrastructures
- The movement of goods from Asia to final destination experience longer distances leading to additional handling processes, longer demurrage, and more complex administrative procedures making supply chain more vulnerable (von der Gracht & Darkow, 2013)

# EFFECTS OF INCREASE TRADE

- Reid (2012) observed that China's cheap-labor pool no longer supports the cheaply manufactured goods and is transitioning to Southeast Asian countries of Vietnam, Indonesia, and Cambodia
- Trade in Southeast Asia encounters high tariffs, non-tariff barriers, high costs, underdeveloped institutions, and inadequate technology and infrastructure (Otsuki et al., 2013)
- Warr and Menon (2016) indicated that Cambodia's poor domestic infrastructure, lack of security for foreign investors, costly government regulations, trade restrictions, and corruption, discourage the promotion of manufacturers into Cambodia

# EFFECTS OF INCREASE TRADE

- Geib and Pfaff (2015) argued that trade flow could experience disruption because of the raising tensions over the South China and East China sea; China and another six major Southeast Asian nations claim rights to the area
- The threat of terrorist attacks on the global supply chain network could create detrimental effects on global economies (von der Gracht & Darkow, 2013)
- The risks of spreading a pandemic through the global supply chain are demonstrating greater possibilities, causing the global supply chain to enter a total standstill (von der Gracht & Drakow, 2013)

# EFFECTS OF INCREASE TRADE

- Oehler-Sincai (2014) observed that a weakness affecting Asian countries are the shortages of human capital (skilled workers), institutions and infrastructures, “good” governance in several Asian countries, and the lack of common solidarity fund
- Supply chain collaboration, green logistics/supply chain, and supply chain management strategies are becoming major issues in Asia (Wu, Goh, Yuan, & Huang, 2017)

# EFFECTS OF INCREASE TRADE

- Raising labor cost, increase in value of real estate, and cost increment of commodities could force consumers to pay more goods manufactured in the Asian region (Reid, 2012)
- “Factory Asia” growth faces the threats of changing global economic landscape, consumer taste, and rising production costs (Oehler-Sincai, 2014).

# POSSIBLE SOLUTIONS

- Ke et al., (2015) argued that a possible solution to maintain and sustain a supply chain that displays a competitive advantage SC managers need to develop and implement strategies that align the supply chain needs with the adequate transportation mode
- Ranjit (2015) stated that for an efficient supply chain to operate requires the participation of the political environment of the country that legislates the infrastructure provisions, regulations and development of services that facilitate trade, and

# POSSIBLE SOLUTIONS

- The Asian supply chain sector needs the promotion and the development of professionals to ensure the reliability of the supply chain, the training needs to enhance the knowledge and skill sets that permit the upgrading of the system supporting the global supply chain (Banomyong, 2012)
- Wu et al.(2017) observed that a lack of clarity, regarding logistics and supply chain management research completed focusing on the Asian region. More collaboration between scholars and practitioners is needed.
- Governments need to implement regulations that encourage the building of infrastructure, permit the entry of technology at a reasonable price, and reduce bureaucracy that delays or slows down the import/export procedures (Ranjit, 2015)



# POSSIBLE SOLUTIONS

- Find a resolution to the maritime and territorial disputes encompassing several Asian nations ( Geib & Pfaff, 2015)
- Finding the proper mix of sea and air transportation that aligns with the needs of the manufacturers and consumers (Ke et al., 2015)
- Asian supply chain managers need to understand, develop, and implement strategies that encourage the interaction between human interaction, information technology, and available infrastructure (Gattorna, 2015)

# CONCLUSION

- The antiquate methods of approaching the global supply chains based on the available infrastructures and operational modes no longer serves the needed interaction between consumers behavior, information technology, and transportation modes.
- The border and maritime disputes that currently occur in the Asian regions are causing unnecessary delays to the economic growth of the Asian nations
- Changes are required to the strategic alignment that guides the flow over time. What works today, may not work tomorrow

# CONCLUSION

- Asian supply chain need to incorporate green processes, and reduce or limit the uncertainties surrounding Asian supply chain
- Establish methods and procedures to manage, control , and secure the supply chain from possible terrorist threat and the risk of transporting pandemic type diseases from origin to final destination
- As Asian countries increase their dependence on export-led strategies, the countries attain and sustain competitive advantage that should deliver economic stability and growth

# CONCLUSION

- Asian governments and users of seaports, airports and transportation hubs need to collaborate and coordinate the development and design of cost-efficient infrastructures that support enhanced technology that should improve the supply chain management that permits for the effortless, accurate, and continuous flow of goods and services to the global markets

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