



BERJAYA BUSINESS SCHOOL

FINAL EXAMINATION

Student ID (in Figures) :

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Student ID (in Words) :

Course Code & Name : MGT5153 Logistics and Transportation Management

Trimester & Year : Sept- December 2019

Lecturer/Examiner : Dr. Lai Ving Kam, Associate Professor

Duration : 3 Hours

INSTRUCTIONS TO CANDIDATES

- This question paper consists of 2 parts:
 PART A (40 marks) : Case study questions. Answer all THREE (3) Case Study questions.
 PART B (60 marks) : Answer only FOUR (4) essay questions out of NINE (9) questions given.
 Answers are to be written in the Answer Booklet provided.
- Candidates are not allowed to bring any unauthorized materials except writing equipment into the Examination Hall. Electronic dictionaries are strictly prohibited.
- This question paper must be submitted along with all used and/or unused rough papers and/or graph paper (if any). Candidates are NOT allowed to take any examination materials out of the examination hall.
- Only ballpoint pens are allowed to be used in answering the questions, with the exception of multiple choice questions, where 2B pencils are to be used..

WARNING: The University Examination Board (UEB) of BERJAYA University College regards cheating as a most serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from BERJAYA University College.

Total Number of pages = 10 (Including the cover page)

PART A : Case Study Questions (40 Marks)
INSTRUCTION(S) : Answer ALL questions on the answer sheet provided.

Case study for Part A of MGT5153 (Logistics and Transportation Management)

Malaysia Physical Connectivity Dilemma

Author: Dr Lai Ving Kam Associate Professor – Logistics and Supply Chain Management,
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Malaysian physical supply chain taking on the logistics and transportation components of adaptive supply chain has lethargically advanced abide fallen behind Vietnam and Thailand in 2019. The advent of digitized supply chain and installation of 5G network in 2019 could offer the opportunities to resuscitate and catch up which compel many companies to capitalize on this emerging trend although ineptly. The major concentration in emerging areas are super connectivity with the rest of the world capitalize the China's belt and read initiative. Digital supply chain possibly will incentivise cold chain logistics; rejuvenate effective last mile delivery services; and global digital logistics hub initiatives. These are promising due to the higher profit margins and rising demand driven supply and demand growth of the logistics and transportation industry sectors. These will enable the logistics and transportation sectors to handle greater global volumes of freight, to speed up and shorten the lead time to deliver goods and service across the region and global supply chains, and to lower the cost of these deliveries. However several improvements need to be made.

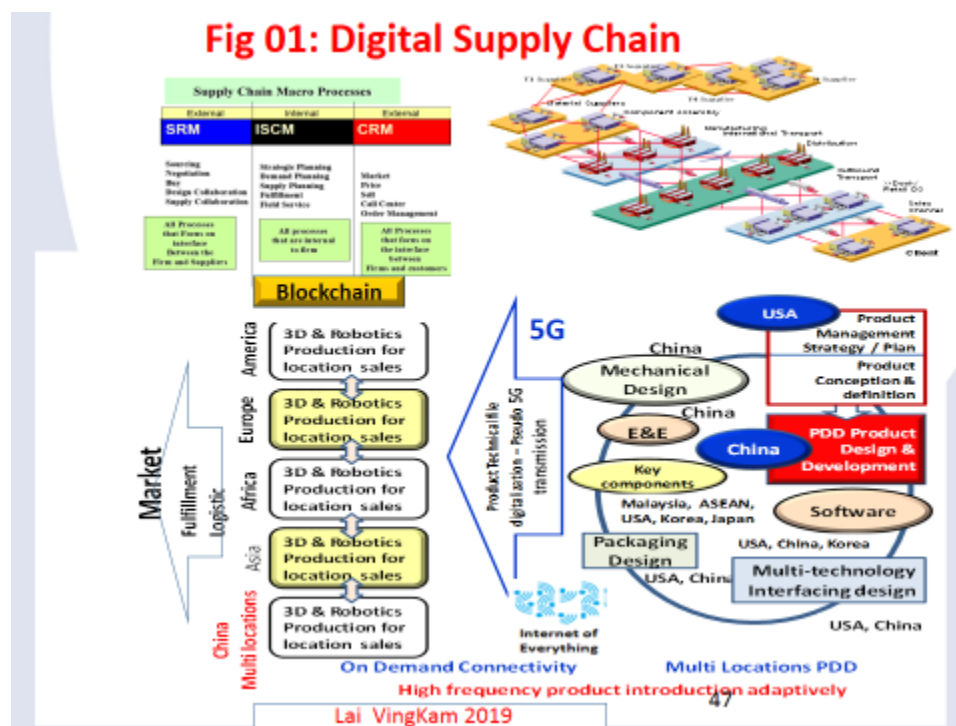


Fig 01 illustrates the greater complexity of digital supply chain management challenging the cost effective delivery of the adaptive logistics and transportation. Abiding Malaysian logistics

and transportation infrastructure is improving, the gaps with Thailand and Vietnam are vividly opening, consequently the need for continuous and speedier investment into infrastructure, such as ports upgrades and expansions, connectivity networks, and advanced information technology (IT) system. Efficient transport links are desirable, connecting the seaports and the cities through road and speed rail links. According to the World Bank Logistics Performance Index (LPI), in 2016, Malaysia had the highest LPI score after Singapore in the ASEAN region. However, Thailand and Vietnam have overtaken Malaysia according to the LPI scores of 2018. The LPI rank of Malaysia among the 160 countries in the world declined to the 41st position in 2018 from 32nd position in 2016.

The unpopular trade wars have heightened the global market volatility; and the effects of belt one road initiative continue to put extreme pressure in commoditizing the products and technologies thus their lifecycles are rapidly shortening. Service sector is the existing prime mover of Malaysia GDP. It is more than double the size of manufacturing contribution in 2018 but insufficient to bailout the weakening Malaysia economy. Market survey analyses suggest strong grow in service logistics and supply chain management which embrace hospitality, retail, tourism and other services while Malaysia has lost its attractiveness in manufacturing sector. Nonetheless both product and service industries are converging into combination products, thus sharing similar logistics and transportation management practices and theoretical principles. The ill preparation to support the human talent pipeline to advance the logistics and transportation management competencies coerce companies to change where and how they play—by creating their own networks or by partnering with companies within and beyond industry borders.

The emerging global trends are:

- Geopolitical realignment
- A new resource slump cycle
- 5G & Digitization Revolution 2.0
- Rise of the machines /automations
- Evolving artificial intelligence
- Cyber security / Blockchain

Transportation and logistics management can make or break a business. In most cases, the two go hand in hand, since logistics management includes managing transportation and its costs. However, for most companies, when you put the two together, it becomes a long chain of diverse tasks and duties that, when put together efficiently, get raw materials from point A origin to the customer destination point B. For most companies, the key to transportation and logistics optimization is finding the right balance between cost efficiency and responsiveness. Perhaps one of the most successful companies at doing this is Amazon, which has dozens of distribution centres across the United States and spends billions in developing state-of-the-art fulfilment centres to get its products to customers quickly while managing to make a profit. Looking at the economic performances, the entire logistics and transportation management in Malaysia is not been fully deployed to support the building of competitive advantage of

respective firms and industries; and comparative advantage of the country. China's initiatives: One Belt One Road (OBOR); China manufacturing 2025; Germany Industry 4.0; Make in India; USA manufacturing re-shoring, Global Industry 4.0, coming of 5G telecommunication technology and many other prominent initiatives will result in four challenges:

1. Rapid shortening of products and technologies lifecycle provide platform to focus on adaptive responsive logistics and supply chain management.
2. Centrality of global connectivity in rapid market demand
3. Changing logistics and supply chain management working principles and processes.
4. The growing importance of service sector as primary GDP contributor

However, Malaysia's geographical advantage has positioned Malaysia strategically to regional resources and supply chains in the ASEAN Region. Strong trade openness policy and trade infrastructure such as transportation, communication and financial services have facilitate and widen market reach in the region. Malaysia ranked at 25th position in the WEF Global Competitiveness Ranking for Quality Transport Infrastructure (roads, railroads, seaports and air) for the 2014-2015 period. Allows Malaysia to offer a cost competitive location for investors intending to set up offshore operations for services and manufacturing activities including in the areas of resource-based industries, high-technology industries, knowledge-based and advanced technology industries for regional and international markets. Malaysia holds a steady third place behind India and the People's Republic of China (PRC) in the 2016 AT Kearney's Global Services Location Index and has maintained its position since its inception in 2004. The index which tracks the off-shoring landscape in 55 countries across three major categories: financial attractiveness, people skills and availability, and business environment.

Logistics and transportation industry forms the backbone to the supply chain and is recognised as key to stimulate trade, facilitate business efficiency and spur economic growth. It is also vital to the connectivity to the rest of the world and nation's competitiveness. Given its strategic location, steady economic growth, good regional linkages, and strong transport infrastructure:

Malaysia has the right endowments to position itself as a regional logistics gateway. In cognisance of its potential, the Economic Planning Unit (EPU) developed the Logistics and Trade Facilitation Master plan to provide the strategic direction for the development of the logistics and transportation industry to further improve its productivity and competitiveness. In developing the Master plan, extensive stakeholder consultations were carried out with industry players, public sector agencies, non-governmental organisations and academicians.

Developed by Dr Lai Ving Kam Berjaya University College Oct 2019

PART A : CASE STUDY QUESTIONS (40 MARKS)
INSTRUCTION(S) : Answer ALL THREE (3) case study questions. Answers are to be written in the Answer Booklet provided.

Case Questions

Question 1

The advent of digitized supply chain and installation of 5G network in 2019 could offer the opportunities to resuscitate the Malaysian physical supply chain management. Describe in **SIX (6)** vital points the existing status of transportation management in Malaysian in relation to super connectivity with China and other ASEAN countries.

(12 Marks)

Question 2

The trade wars between USA and China and spreading to European Union have heightened the global market volatility; and the effect of one belt one road initiative continue to put extreme pressure on Malaysia to improve the super connectivity initiative. Illustrate in **SIX (6)** points on the criticality of logistics management in the fast changing and shortening product lifecycle in smart phone market under demand driven scenario in Malaysia.

(12 Marks)

Question 3

In new Malaysia the changing political scenarios demand new breed of transportation management, assess the situation and outline **FIVE (5)** critical actions on what an effective change transportation will do to significant turnaround the existing lethargic market situation.

(16 Marks)

END OF PART

PART B : ESSAY QUESTIONS (60 MARKS)
INSTRUCTION(S) : Answer only FOUR (4) essay questions out of NINE (9) questions given.
Answers are to be written in the Answer Booklet provided.

Question 1

Strategic adaptive responsive logistics and transportation management is fundamental to meeting profitability critical to success as source of competitive advantage in Malaysia.

- a. With the current volatile market beleaguered by shortening product and technology lifecycle, the role of transportation in an adaptive responsive global supply chain is significantly pivotal. Reconstruct **FIVE (5)** pertinent roles of transportation in meeting super connectivity delivery.

(8 Marks)

- b. The industry and global market have moved toward demand driver mode far beyond the capabilities of the Malaysian enterprises, create a new line of rational by manipulating **FIVE (5)** enhanced dynamics affecting transportation decisions in the rapid cascading lifecycle product industry.

(7 Marks)

(Total 15 Marks)

Question 2

Logistics Management necessitates the efficient management of the flow of materials inbound-through and outbound of an organization.

- a. Identify the **TWO (2)** primary product flow in logistics management

(3 Marks)

- b. Appraise **FIVE (5)** critical controllable elements in a Logistics System that result in adaptive responsive supply chain management.

(6Marks)

- c. Identify the **FIVE (5)** essential logistical activities in an adaptive responsive supply chain.

(6 Marks)

(Total 15 Marks)

Question 3

Increased complexity in physical supply chain challenge require sophisticate effective and efficient control of large, geographically dispersed supply chains in reduction of supply chain errors

- a. Organize **THREE (3)** critical objectives of physical supply chain management in super connected volatile and competitive market.

(3 Marks)

- b. Assess **FIVE (5)** practical issues in transportation scheduling in fast moving consumer products.

(6 Marks)

- c. Describe the **FIVE (5)** Transport Cost Characteristics

(6 Marks)

(Total 15 Marks)

Question 4

Logistics management is a supply chain management component that is used to meet customer demands through the planning, control and implementation of the effective movement and storage of related information, goods and services from origin to destination.

- a. Describe the **FOUR (4)** subdivision of Logistics Management in supply chain.

(5 Marks)

- b. Critique **FOUR (4)** increasing significance of Logistics.

(5 Marks)

- c. In managing logistics and transportation under uncertainty evaluate **FOUR (4)** probabilistic transportation system and planning.

(5 Marks)

(Total 15 Marks)

Question 5

Transportation Science focuses primarily on fundamental theories, coupled with observational and experimental studies of transportation and logistics phenomena and processes, mathematical models, advanced methodologies and novel applications in transportation and logistics systems analysis, planning and design.

- a. Illustrate the **FOUR (4)** role of physical distribution network design
(5 Marks)
- b. Cross-docking is a practice in logistics of unloading materials from an incoming semi-trailer truck or railroad car and loading these materials directly into outbound trucks, trailers, or rail cars, with little or no storage in between. Assess **FOUR (4)** issues in Cross-Docking In Malaysia
(5 Marks)
- c. Illustrated **FOUR (4)** issues with Cross-Docking
(5 marks)
(Total 15 Marks)

Question 6

Logistics and Transportation management is an integral part of delivering goods from suppliers to customers. Everything and everyone involved in the delivery of products or materials is encompassed by supply chain management. Logistics management supports sustained and efficient freight transport is fundamental for economic development.

- a. Identify and illustrates **FOUR (4)** logistics and transportation network design decisions.
(5 Marks)
- b. Describe the **FOUR (4)** factors influencing Network Design Decisions.
(5 Marks)
- c. Agile logistics and supply chains are designed to respond rapidly to unpredictable change. Assess **FIVE (5)** principles:-
(5 Marks)
(Total 15 Marks)

Question 7

Transportation risk management serves as a system to anticipate potential disruptions for one purpose, that is to help transportation companies develop dynamic processes and systems that quickly, effectively and reliably respond to changing logistics and transportation issues.

Appraise **FIVE (5)** supply chain risks to be considered during transportation network Design
(15 Marks)

Question 8

Efficient layout design is the foundation of an efficient supply chain, one that can service your customers in a timely fashion.

- a. In addition to the conventional logistic operations objectives which will be influenced by the layout design , illustrates **FIVE (5)** importance of logistics layout
(5 Marks)

- a. Appraise **FOUR (4)** types of layout should a logistics operation choose?
(5 Marks)

- b. Location is the place where a firm decides to site its operations. Location decisions can have a big impact on costs and revenues. A business needs to decide on the best location taking into account factors such as: Customers - is the location convenient for customers?
Appraise the **FIVE (5)** factors affecting Location
(5 Marks)
(Total 15 Marks)

Question 9

International trade is the exchange of capital, goods, and services across international borders or territories. In most countries, such trade represents a significant share of gross domestic product (GDP).

- a. Describe **FOUR (4)** main areas where Aid for Trade is needed.

(8 Marks)

- b. Assess **FIVE (5)** issues a global firm must address in designing international logistics channels?

(7 Marks)

(Total 15 Marks)

End of Examination paper