



**UNIVERSITI KUALA LUMPUR
BUSINESS SCHOOL**

**FINAL EXAMINATION
JULY 2025 SEMESTER**

COURSE CODE : ECB30903
COURSE NAME : DIGITAL TRANSFORMATION MANAGEMENT
PROGRAMME NAME : BACHELOR OF MANAGEMENT AND
(FOR MPU: PROGRAMME LEVEL) ENTREPRENEURSHIP
DATE : 17 SEPTEMBER 2025
TIME : 9:00 AM – 12:00 PM
DURATION : 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please **CAREFULLY** read the instructions given in the question paper.
2. This question paper has information printed on both sides of the paper.
3. This question paper consists of **TWO (2)** sections; Section A, and Section B.
4. Answer **ALL** questions from **Section A** and **Section B** choose **ANY THREE (3)** from **Section B**.
5. All questions must be answered in **English** (any other language is not allowed).
6. This question paper must not be removed from the examination hall.

THERE ARE TWELVE (12) PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 40 marks)

Answer ALL questions.

Please use the answer booklet provided.

Question 1**SmartMart Supermarket**

SmartMart introduced self-checkout kiosks and mobile payment apps to streamline shopping. They also use big data analytics to track customer purchases and improve product placement.

Critically discuss **FIVE (5)** ways big data analytics is being used to improve sales forecasting in Smart Mart Supermarket.

(10 marks)

Question 2

Critically discuss blockchain technology and evaluate **THREE (3)** advantages and **THREE (3)** challenges of using blockchain in the banking sector for cross-border payments. Support your answer with real-world corporate cases where banks have aligned blockchain to their business operations.

(10 marks)

Question 3

Analyze how streaming platforms like Netflix or Spotify use big data to personalize user experiences. What are the possible **FOUR (4)** challenges of this approach?

(10 marks)

Question 4**Using IT to Transform Healthcare Services**

SmartMed Clinic, a regional healthcare provider, faced challenges with long patient waiting times, inefficient appointment scheduling, and fragmented medical records. To overcome these issues, SmartMed invested in Information Technology (IT) solutions:

Electronic Health Records (EHR): Doctors and nurses can instantly access patient histories, lab results, and prescriptions.

AI-powered Appointment Scheduling: Patients book slots online, while the system predicts peak hours to optimize staffing.

Telemedicine Platforms: Patients consult doctors remotely, reducing physical visits.

Data Analytics: The clinic analyzes patient data to identify health trends and improve preventive care programs.

The adoption of these IT solutions improved efficiency, reduced errors, and enhanced patient satisfaction. However, the clinic still faces cybersecurity risks, training needs for staff, and high IT maintenance costs.

- (a) How can SmartMed Clinic apply data analytics to improve preventive healthcare services?
- (5 marks)

- (b) Analyze the impact of telemedicine adoption on SmartMed's business processes and patient care.
- (5 marks)

SECTION B (Total: 60 marks)

Answer THREE (3) questions only.

Please use the answer booklet provided.

Question 1

Adopting Cloud Computing Among Enterprises in Malaysia: Here's Why

By Xiao Hui

Digital transformation for businesses is imperative to sustain global developments, business in Malaysia is in the transformation phase to a holistic digital environment. New age developments like cloud computing have scores of benefits for organizations, in terms of infrastructure cost, scalability, and reliability.

In the conventional information systems network, irrespective of the size of the business, organizations require a wide range of IT infrastructures like servers, network systems, application security solutions, and another set of tools for managing the in-house systems environment.

Whereas in the cloud computing solutions, the service providers help the clients in choosing the right kind of cloud service offerings. The main advantage of choosing the cloud computing model is about easing many complexities integral to the conventional Information systems network.

Cloud service providers in Malaysia are offering great value propositions for businesses eyeing the digital transformation to cloud computing. Cloud computing in Malaysia is in its nascent stages, and when the digital transformation of businesses adapts cloud computing solutions, it can lead to a paradigm shift in industry 4.0 Malaysia and digital transformation in Malaysia. Cloud computing technology can be summarized as a systematic approach wherein enterprises use third-party data centers, servers, or application networks to host their respective information systems. A key advantage of such engagement is reduced workload on the enterprises to manage IT infrastructure, and related challenges.

In parlance to coworking spaces wherein a huge workplace infrastructure is shared between multiple resources, wherein few sets of facilities are private access, and few resources are common sharing among the users, cloud computing exhibits the same phenomenon. In the digital transformation of Malaysia, if every small business Malaysia must set up in-house digital and information systems infrastructure, it is non-pragmatic for near future achievement. Whereas, when massive data centers and cloud service providers in Malaysia are offering plug-ins and ready-to-deploy infrastructure, it helps the small businesses host their applications in a more secure environment with economic and flexible pricing approach.

- (a) How can Malaysian SMEs apply cloud computing to reduce costs and improve efficiency in their digital transformation journey?

(6 marks)

- (b) Analyze how cloud computing compares to conventional IT infrastructure in terms of challenges and benefits for Malaysian businesses.

(7 marks)

- (c) Analyze the role of cloud computing in accelerating Malaysia's Industry 4.0 and digital transformation goals.

(7 marks)

Question 2

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How Cloud Computing Is Taking Internet Companies in Malaysia to New Heights

By Avanti Kumar

Malaysia's Domestic Trade and Consumer Affairs Minister Datuk Seri Alexander Nanta Linggi recently announced that e-wallet usage had increased by 131% in 2020 over the previous year. Citing data from the recently released PayNet 2022 report, Malaysians using cash payments dipped 11% to 78% from 89% before COVID-19 emerged. This surge in cashless payments is in line with the e-commerce boom in Malaysia and within the region.

He also noted that the country's Malaysian Digital Economy Blueprint (MyDIGITAL) included encouraging the use of e-commerce by 875,000 micro, small, and medium enterprises, creating 500,000 business opportunities, and contributing 22.6% to the country's Gross Domestic Product (GDP) by 2025. *"According to the Department of Statistics Malaysia, e-commerce transaction income rose 30% year-on-year in the first quarter of 2021 to RM254.6 billion,"* he noted.

Interestingly, RHB Investment Bank Bhd noted that infrastructure investments will strengthen the e-commerce segment's growth, and Malaysia ranks third behind Singapore and Vietnam as the logistics hub of choice in Southeast Asia.

"A few notable multinational corporations (MNCs) have chosen Malaysia to be their regional distribution centres, including IKEA, Lazada Group, Nestle SA, and BMW AG. Logistic facilities with smart systems, such as automated storage and retrieval systems," RHB Investment's analyst Loong Kok Wen said recently. In Malaysia, startups are competing with multinationals in different arenas in the booming e-commerce space. Alibaba Cloud's uptime and monitoring strategies via CloudMonitor help businesses stay on top of changes. Such innovations have helped nurture many local success stories:

Alibaba Cloud's empowerment of one enterprising Malaysian named Evelyn Toh, who wanted to demonstrate Malaysia's unique wonders, attractions, and destinations, garnered third place (shared) in the Alibaba Cloud Developer Initiative 2021.

Meanwhile, another local company, consumer electronics retailer Senheng's digitalisation programme involved upgrading its retail outfits. Established in 1989, the company's digital drive has helped achieve an operating revenue of RM1.3 billion in 2020 and is expected to list on the Main Board of Bursa Securities in early 2022.

One of the first to implement the Terminus B2B2C Solution provided by Alibaba Cloud, the company used this to help ramp up business for local SMEs by allowing them to tap into Senheng's three million-strong PlusOne member database with the B2B2C S-Rewards Centre.

- (a) How can Malaysian SMEs apply the opportunities created by the MyDIGITAL initiative and Alibaba Cloud's solutions to strengthen their competitiveness in the e-commerce space?

(6 marks)

- (b) Analyze the factors contributing to Malaysia's growth as a regional e-commerce and logistics hub compared to Singapore and Vietnam.

(7 marks)

- (c) Critically analyze how digitalisation efforts by companies like Senheng demonstrate the role of cloud-based solutions in transforming traditional retail models in Malaysia.

(7 marks)

Question 3**A Systematic Literature Review : Challenges of Cloud Computing Adoption for Small Medium Business in Malaysia****Muhammad SyahreenZulkifli¹, Hafiza Abas²**

The Internet serves as the primary platform for cloud computing utilized by any organization. The growing number of SMEs are moving their data, applications, and infrastructure to the cloud to realize financial and technological benefits. However, adopting and implementing a proper cloud service is challenging and needs the active participation from the business management and IT departments. Even though awareness of critical success factors (CSFs) for cloud implementation projects substantially promotes avoiding project failures, this topic has received limited research, particularly with an emphasis on SMEs[11].

Malaysian enterprises, particularly SMEs, have struggled to completely embrace the latest technology revolution. The alarming statement is made in light of the fact that just a few businesses in the country are capable of adopting Industry 4.0's pillars, a situation compounded by a percentage of business owners who remain hesitant to embrace technology such as cloud computing[12]. To close this substantial gap, Malaysia's government is pushing SMEs to use cloud computing services by offering facilities and a variety of programs through the Multimedia Super Corridor (MSC) and Shared Cloud Enterprise Services(SCES). The primary goals are to stimulate the adoption of cloud computing by SMEs and to increase the efficiency of business models[13].

In summary, SMEs are still developing a mandate for cloud services adoption; thus, understanding the challenges and security framework will help SMEs adopt cloud services[14]. Additionally, as cloud computing use continues to grow, the criticality of a comprehensive governance and security architecture has never been greater[15].

- (a) How can Malaysian SMEs apply government initiatives like MSC and SCES to accelerate cloud computing adoption?

(6 marks)

- (b) Analyze the main challenges SMEs face in adopting cloud computing and how these challenges can be mitigated.

(8 marks)

- (c) Critically analyze why a governance and security architecture is vital for SMEs in adopting cloud computing.

(6 marks)

Question 4**Impact of Cooperative Innovation on the Technological Innovation Performance of High-Tech Firms: A Dual Moderating Effect Model of Big Data Capabilities and Policy Support**

Knowledge has become an important resource to enhance the competitive advantage of firms in the new economy. Knowledge-based theory is an extension of resource-based theory, and its core idea is to clarify if the existing organizational knowledge management models from the perspective of knowledge management are more effective in managing knowledge compared with other organizational knowledge management models.¹ In addition, the theory argues that knowledge does not exist independently but that the organization is the carrier of knowledge,² and, thus, the knowledge stored and used by the firm as well as the new knowledge created are important indispensable resources for the firm.³

The significance of knowledge-based theory in this study is that knowledge is a necessary prerequisite for all activities of the firm. To maintain a sustainable technological competitive advantage in dynamic competition, firms need to continuously acquire technological knowledge from outside by strengthening their cooperation with other organizations.

It has become difficult for individual organizations to meet the needs of industrial technology innovation development by relying solely on their limited internal resources and capabilities.⁴ Firms are becoming aware of the importance of cooperative innovation (CI) with external agents, such as government departments, to systematically acquire external knowledge and capabilities⁵ while effectively integrating internal and external innovation resources,⁶ reducing uncertainty in technological innovation,⁷ and forming and maintaining a technological comparative advantage in the face of intense competition. Compared with ordinary firms, the technological innovation behavior of high-tech firms is characterized by high innovation requirements and a high degree of risk, and also has higher requirements for resources such as capital, talents, and equipment. Therefore, high-tech firms rely more on CI to obtain various resource elements needed to carry out technological innovation compared with ordinary firms.

- (a) How can high-tech firms apply knowledge-based theory (KBT) to strengthen their competitive advantage in a rapidly changing market?

(5 marks)

- (b) Analyze why cooperative innovation (CI) is particularly crucial for high-tech firms compared to ordinary firms.

(5 marks)

- (c) Apply the principles of knowledge-based theory to suggest how firms can reduce uncertainty in technological innovation.

(5 marks)

- (d) Critically analyze the role of external cooperation in building a sustainable technological comparative advantage.

(5 marks)

END OF EXAMINATION PAPER