MIS782 – Value of Information - Trimester 1 2024
Assessment Task 3 –Applying Emerging Technology for Competitive Advantage – Individual

REPORT DUE DATE AND TIME:	**Week 12, 29 May 2023 Wednesday, by 8.00 PM (AEST)**
PERCENTAGE OF FINAL GRADE:	**30%**
WORD COUNT:	**1500 words**

Description

Purpose

In an increasingly dynamic and turbulent market environment, organizations need to sense and seize opportunities with disruptive emerging technologies to sustain their competitiveness. You take the role of an IS consultant in which you should provide recommendations about how an organization can sense and seize the opportunities and threats of an emerging technology to gain further competitive advantage. Your recommendation should be embedded in a 'business use case brief', which will outline the details of one suggestion of a use case for the emerging technology investment for business purposes. For this assessment task, the emerging technology is *digital twins*. The organization is Maersk (www.maersk.com/), a logistics and supply chain business[1].

Specific Requirements

Background

Organisations evolve to respond to market inertia, changing customer needs, regulatory changes, crisis and above all, advances in disruptive technologies. Emerging technologies appear to have rocked the very foundation of many a domain of work.

Both the Resource-Based View (RBV) and Dynamic Capabilities theory (DCT) constitute an approach on how firms can get competitive advantage in dynamic environments, where changes take place in a continuous way. Firms that have deployed dynamic capabilities often are more successful as it enables instant response and flexible innovation based on strong capabilities for sensing (e.g., detection), seizing (e.g., adaptation, absorption) and transforming/configuring (e.g., integration, innovation).

Report structure

This report should be no more than 1500 words (excluding the references and appendices).

Below you can find a detailed description of the required sections for this report:

- **Proposed title:** Give your business case brief a title.

[1] If you would like to use your work organisation for this assignment, you may like to discuss with the tutor/unit chair through email. Please note that by choosing your own work organisation, be mindful of not sharing sensitive corporate knowledge.

- **Proposed business use case brief with the emerging technology (~400 words)**: In this section, describe the business opportunity/problem that the proposed use case brief will address with the emerging technology and identify the potential outcomes of the investment that will return business value for the organization (e.g., improved product or service, improve customer service, improve communication, streamlining internal processes, sales and marketing, data collection and analysis, create or strengthen relationships with suppliers, customers, or partners etc.). The proposed use case should have a clearly defined purpose and must map to the goals and strategy of the organization (use the contextual questions as a guide – what, why and how). Build your argument based on the organization's resources and capabilities from the Resource-Based View (RBV) theory to identify potential areas where emerging technology can be applied for competitive advantage. Support your arguments with reference whenever possible.
- **Proposed solution for the use case (~700 words): I**dentify a solution/way of implementing the new emerging technology for the use case you are proposing.
    - Conduct research on the available information sources for the proposed use case including the types of the data that will be used and the algorithms and models that will be employed. This could include data from internal and external sources, expert opinions, and market research. Consider factors such as the reliability, relevance, representativeness, and the dimensions of the information sources.
    - How should the organization set up the relevant analytics capabilities resources to support evidence-based and optimal decisions enabled by the proposed use case?
    - Carry out a critical assessment for the impact of the use case on the decision-making process or performance of the organisation. Consider factors such as benefits and limitations, information asymmetry, risks including ethical implications.
- **The role of Dynamic Capabilities (~400 words)**: To implement the emerging technology, the organization would require developing several capabilities for sensing, seizing, and transforming for the proposed business use case. In this section, identify the dynamic capabilities that are needed in relation to materializing the strategies for the business use case and consider how these capabilities would impact on the organization's competitiveness and its sustainability.
- **References**: References and citations showing the source of all the information in the report need to be provided (APA referencing style). The references used must demonstrate thorough research using quality references such as journal articles, book sections, conference papers, and industry reports with good evidence to support your arguments in the sections above. Details referencing can be found at: https://www.deakin.edu.au/students/studying/study-support/referencing (ensure to scroll down!)
- **Appendices:** In this section, you should place figures or tables that illustrate or summarize your key points from the recommendations section.

- **Key article** that introduces you to Generative AI for this assessment:

  Dwivedi et al. (2023). "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges, and implications of generative conversational AI for research, practice and policy", *International Journal of Information Management*, 71, https://doi.org/10.1016/j.ijinfomgt.2023.102642
- **Further resources for research:** MIS782 reading list has further useful readings
- MIS782 unit help guide with tips on how to search for related references on Maersk's digital business
- Template for business use case brief:

What to include in your Business use case brief

Very high-level view of what the use case will be. Format - very brief, succinct, kept to bare minimum, only details that are necessary to decide whether this is a worthwhile investment/project for the organisation, assisting decision making. Keep the problem separated from the solution, focusing on

the business process, no technical/infrastructure/architecture details are required - “what’s in it for the business community?”. It is similar to user stories in agile development or project charter in project management.

- Define the Business area that the use case targets
- Purpose of the business use case
- Focus on the value to the business user
    - What business need does it fulfill?
    - Who are the stakeholders?
    - What benefits results for its stakeholders and what metrics will you use to measure business success?
- Align solutions with the business need (ask the contextual questions – what, why and how)
    - From RBV perspective, how it will achieve competitive advantage based on core resources and capabilities

Watch the video – Introduction to Business Use Cases for Lean and Agile Environments - YouTube

Learning Outcomes

This task allows you to demonstrate your achievement towards the Unit Learning Outcomes (ULOs) which have been aligned to the Deakin Graduate Learning Outcomes (GLOs). Deakin GLOs describe the knowledge and capabilities graduates acquire and can demonstrate on completion of their course. This assessment task is an important tool in determining your achievement of the ULOs. If you do not demonstrate achievement of the ULOs you will not be successful in this unit. You are advised to familiarise yourself with these ULOs and GLOs as they will inform you on what you are expected to demonstrate for successful completion of this unit.

The learning outcomes that are aligned to this assessment task are:

Unit Learning Outcome (ULO)	**Graduate Learning Outcome (GLO)**
ULO3: Appraise, critically analyse, and communicate the business value potential of emerging information technologies in organizations.	**GLO1:** Discipline-specific knowledge and capabilities **GLO4:** Critical thinking

Submission

You must submit your assignment in the Assignment Dropbox in the unit CloudDeakin site on or before the due date. When uploading your assignment, name your document using the following syntax: **<your surname_your first name_[unitcode].doc (or ‘.docx’)**. For example, ‘Jones_Barry_125456789_ABC125.doc’. Only one submission per group is required.

Submitting a hard copy of this assignment is not required. You must keep a backup copy of every assignment you submit until the marked assignment has been returned to you. In the unlikely event that one of your assignments is misplaced you will need to submit your backup copy.

Any work you submit may be checked by electronic or other means for the purposes of detecting collusion and/or plagiarism and for authenticating work.

When you submit an assignment through your CloudDeakin unit site, you will receive an email to your Deakin email address confirming that it has been submitted. You should check that you can see your assignment in the Submissions view of the Assignment Dropbox folder after upload and check for, and keep, the email receipt for the submission.

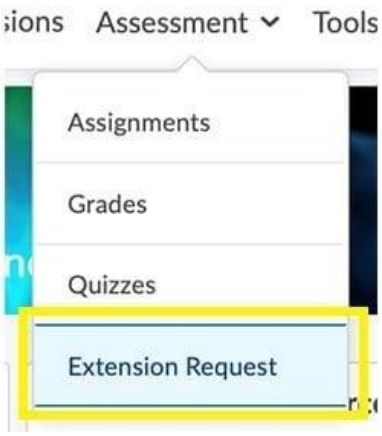
Marking and feedback

The marking rubric indicates the assessment criteria for this task. It is available in the CloudDeakin unit site in the Assessment folder, under Assessment Resources. Criteria act as a boundary around the task and help specify what assessors are looking for in your submission. The criteria are drawn from the ULOs and align with the GLOs. You should familiarise yourself with the assessment criteria before completing and submitting this task.

Students who submit their work by the due date will receive their marks and feedback on CloudDeakin 15 working days after the submission date.

Extensions

This is an end of term assessment task and the deadline is strict. Extensions can only be granted for exceptional and/or unavoidable circumstances outside of your control. Requests for extensions must be made by 12 noon on the submission date using the online Extension Request form under the Assessment tab on the unit CloudDeakin site. All requests for extensions should be supported by appropriate evidence (e.g., a medical certificate in the case of ill health).



Applications for extensions after 12 noon on the submission date require University level special consideration and these applications must be must be submitted via StudentConnect in your DeakinSync site.

Late submission penalties

If you submit an assessment task after the due date without an approved extension or special consideration, 5% will be deducted from the available marks for each day after the due date up to seven days*. Work

submitted more than seven days after the due date will not be marked and will receive 0% for the task. The Unit Chair may refuse to accept a late submission where it is unreasonable or impracticable to assess the task after the due date. *'Day' means calendar day for electronic submissions and working day for paper submissions.

An example of how the calculation of the late penalty based on an assignment being due on a Thursday at 8:00pm is as follows:

- 1 day late: submitted after Thursday 11:59pm and before Friday 11:59pm– 5% penalty.
- 2 days late: submitted after Friday 11:59pm and before Saturday 11:59pm – 10% penalty.
- 5 days late: submitted after Saturday 11:59pm and before Sunday 11:59pm – 15% penalty.
- 4 days late: submitted after Sunday 11:59pm and before Monday 11:59pm – 20% penalty.
- 5 days late: submitted after Monday 11:59pm and before Tuesday 11:59pm – 25% penalty.
- 6 days late: submitted after Tuesday 11:59pm and before Wednesday 11:59pm – 50% penalty.
- 7 days late: submitted after Wednesday 11:59pm and before Thursday 11:59pm – 55% penalty.

The Dropbox closes the Thursday after 11:59pm AEST/AEDT time.

Support

The Division of Student Life provides a range of **Study Support** resources and services, available throughout the academic year, including **Writing Mentor** and **Maths Mentor** online drop ins and the SmartThinking 24 hour writing feedback service at **this link**. If you would prefer some more in depth and tailored support, **make an appointment online with a Language and Learning Adviser**.

Referencing and Academic Integrity

Deakin takes academic integrity very seriously. It is important that you (and if a group task, your group) complete your own work in every assessment task Any material used in this assignment that is not your original work must be acknowledged as such and appropriately referenced. You can find information about referencing (and avoiding breaching academic integrity) and other study support resources at the following website: http://www.deakin.edu.au/students/study-support

Your rights and responsibilities as a student

As a student you have both rights and responsibilities. Please refer to the document ***Your rights and responsibilities as a student*** in the Unit Guide & Information section in the Content area in the CloudDeakin unit site.

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ASSESSMENT TASK 2 RUBRIC

Performance Levels/Criteria	N (0-29)	N (30-49)	P (50-59)	C (60-69)	D (70-79)	HD (80-100)
Proposed use case with the emerging technology, ULO3, GLO1 & GLO4, (10 marks)	The report has not been presented in a manner that meets the academic standards and requirements.	Report demonstrates little/no knowledge of the use case for a business opportunity or problem effectively illustrating value returns, expected outcomes and alignment with business and RBV analysis. Clearly there is a limited knowledge of the organisation.	Adequate knowledge of the use case for a business opportunity or problem effectively illustrating value returns, expected outcomes and alignment with business and RBV analysis, but is somewhat unclear or not justified in many places.	Good overview of the use case, but lacking depth in places of knowledge of business opportunity or problem effectively illustrating value returns, expected outcomes and alignment with business and RBV analysis, but needs not consistently well justified.	Mostly advanced (very specific, detailed, expert) overview of the use case. Mostly advanced use of knowledge of business opportunity or problem effectively illustrating value returns, expected outcomes and alignment with business and RBV analysis.	Outstanding (very specific, detailed, expert) overview of the use case. Outstanding use of knowledge of business opportunity or problem effectively illustrating value returns, expected outcomes and alignment with business and RBV analysis.

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ASSESSMENT TASK 2 RUBRIC

Performance Levels/Criteria	N (0-29)	N (30-49)	P (50-59)	C (60-69)	D (70-79)	HD (80-100)
Proposed solution for the use case, ULO3, GLO1 & GLO4, (15 marks)	The report has not been presented in a manner that meets the academic standards and requirements.	Very little evidence of strategic thinking. Presents an analysis, interpretation of proposed solution, information sources, and No limitations, information asymmetry, risks including ethical implications. There is very little value in the business case.	Adequate evidence of applied strategic thinking, but too generic in application. Presentation and interpretation of proposed solution including information sources, analytics capability needed, benefits and limitations including information asymmetry, risks including ethical implications. But the report is not grounded in evidence.	Good evidence of applied strategic thinking. Presents a coherent analysis, interpretation of proposed solution including information sources, analytics capability needed, benefits and limitations including information asymmetry, risks including ethical implications. However, the report is not consistent throughout for one or more these areas.	Mostly demonstrates advanced clarity of applied strategic thinking. Presents a coherent analysis, interpretation, and prediction of proposed solution, including information sources, analytics capability needed, benefits and limitations including information asymmetry, risks including ethical implications. Proposed solution and critical analysis are firmly based in evidence.	Outstanding clarity of applied strategic thinking. Presents a clear and coherent analysis, interpretation of proposed solution including information sources, analytics capability needed, benefits and limitations including information asymmetry, risks including ethical implications. Recommended solution and critical analysis are creative, and firmly based in evidence.

Performance Levels/Criteria	N (0-29)	N (30-49)	P (50-59)	C (60-69)	D (70-79)	HD (80-100)
The role of Dynamic Capabilities, ULO3, GLO1 & GLO4, (5 marks)	The report has not been presented in a manner that meets the academic standards and requirements. No referencing.	Report demonstrates little/no knowledge of the DCT capabilities illustrating organizational competitiveness and sustainability. Clearly there is a limited knowledge of the organisation and DCT.	Adequate argument for the DCT capabilities illustrating organizational competitiveness and sustainability., but mostly lacks clarity, evidence and/or logical flow in many places.	Good argument for of the DCT capabilities illustrating organizational competitiveness and sustainability but lacks clarity and evidence in a few places in the report, and/or sometimes does not flow in a logical manner.	Mostly expert (clear, concise, convincing, logical flow) argument used for the DCT capabilities illustrating organizational competitiveness and sustainability.	Expert (clear, concise, convincing, logical flow) argument used for the DCT capabilities illustrating organizational competitiveness and sustainability.