THE OPEN UNIVERSITY OF SRI LANKA
MASTER OF BUSINESS ADMINISTRATION IN HUMAN RESOUCE MANAGEMENT PROGRAMME
OSP9336/MSP9336/MCP2255: STRATEGIC MANAGEMENT
FINAL EXAMINATION – 2023
DURATION: THREE (03) HOURS

| Date: 15th October 2023 | Time: 1.30 pm to 4.30 pm |
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Instructions:

i. Answer PART A (Question 1 and Question 2) (Compulsory) and any 3 questions from the PART B.
ii. Answers should be focused and methodical. Use suitable examples where applicable.
iii. State your student registration number in every page of the answer scripts.
iv. This paper has 6 pages. Maximum marks 100.

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PART A (Compulsory questions)

Question 1

(Read the following document and attempt the questions given at the end.)

**The Environmental Impact of IoT**

What is Internet of Things (IoT)?

A sustainable agenda is making its way across all economic sectors, and it has inevitably arrived in technology, too. Moreover, the sustainable approach to technology can play a significant role in reducing overall global emissions. This article explores one of the most trending tech sector products, the Internet of Things (IoT), and how IoT can improve the environment.

IoT is a theoretical framework that supports the notion of internet-based device communication.

Today, IoT is applicable to all industries and is one of the fastest growing IT sectors, hitting USD $300.3 billion in 2021, with the expectation that it will reach USD $650.5 billion by 2026.

The rising business role of IoT only makes its sustainability more important.

**What is IoT and how do IoT devices differ from regular tech devices?**

> *The Internet of things describes devices with sensors, processing ability, software and other technologies that connect and exchange data with other devices and systems over the Internet or other communications networks. The Internet of things encompasses electronics, communication and computer science engineering.* (Wikipedia). These connected devices can interact with each other and with centralized systems, to enable these devices to collect and share data to improve efficiency, safety, and convenience in various aspects in the fields of consumer devices, industrial equipment, logistics, agriculture, healthcare, and with various safety/security monitoring mechanisms etc.

In the current market, it is sometimes difficult to draw a clear line between IoT and regular IT devices. IoT devices are normally small, built-in or separate devices with a set of different functions. Nowadays, IoT products are often capable of larger-scale operations, despite being small.

The unique features of IoT devices have two main implications for the environment.

- First, the small size of IoT devices means that their physical production requires fewer materials.
- The second important factor affecting the environment is the software used in IoT. IoT devices have restrictions in memory, meaning they need special software that can be run in such conditions. The special software options used to create IoT are called embedded systems.

Embedded systems are adapted for smaller than computer memory. With the growth of IoT popularity, there is a demand for a more expanded and complex functioning, too. This means creating embedded systems in the most efficient way so they fit into the small memory but are also able to deliver a variety of tasks.

**The Effect On The Environment And The Sustainability Of IoT**

At the peak of IoT device popularity, they were considered to be eco-friendly, but with the increasing number of IoT devices globally, it is noted that, just like any other device, they increase energy consumption. However, compared to other tech products, IoT can deliver greener results. This is how.

• Because IoT devices are small physical devices, they already require less plastic and other materials, thus producing less e-waste.

• As the industry grows in complexity, IoT can perform more functions. This means using less powerful resources for the same tasks that larger devices would use, thus saving some energy.

• Since IoT devices are small, they also have less memory capacity, meaning that IoT software should be designed in a special way to operate on small resources while being as efficient as possible.

As the industry gets larger and more complex, there are new demands for software to fit IoT devices to allow them to perform various functions. It's common knowledge that the emergence of new products is caused by market demands. In the case of IoT, there is a growing number of embedded systems aimed to deliver better efficiency on smaller memories. From this point of view, the IoT product itself acts as a motivation for software developers to design better and greener solutions, which are powerful and use fewer resources. OpenJDK companies are progressing toward delivering a better Java for embedded systems, designing it with a sense of greater efficiency and less energy consumption.

Expansion of the IoT market also brought new specific tools that were built to smooth operations and communications in IoT and also to reduce energy consumption. Such examples include products allowing the optimization of IoT devices and the cloud (AWS).

The other way IoT helps the environmental agenda lies in so-called green IoT. Green IoT aims to reduce energy consumption through optimization. It is a combination of hardware and software efficiency techniques, using low-power or alternate energy sources. The approach is also reflected in the way green IoT processes the data.

**How sustainable is your IoT?**

Today, IT provides many options to make your business or technological product more sustainable.

IoT devices stand out from other devices due to their unique features. IoT manufacturing requires less material as well as less energy than a large computer. IoT dictates a new course for the software industry to develop more complex systems that can be run on limited resources. Finally, there is a growing number of IoT devices made to monitor, control and save energy and other natural resources.

The above-specified effects and qualities of the IoT classify this niche of devices as sustainable technology, but there should be a reasonable attitude toward IoT possession.

Generally, all IoT devices serve one main goal: data collection. They never stop absorbing information and sending it to data centers for analysis. The whole process takes a lot of energy and is perhaps not always worth it. It would be a good practice to evaluate the real need for IoT use, in terms of what we gain and how much we spend in the race for popular digital instruments.

We live in a world with amplified demand for digital devices, which in many cases is not justified. Unsustainable use of digital services is widespread nowadays and needs to be more realistic.

(Base document by **Alexander Belokrylov,** *CEO of BellSoft, Forbes, Sep 26, 2022)*

Attempt the following questions.

a) Describe the environmental, economic, and societal dimensions of general environment on sustainability of IoT industry. (10 marks)

b) Safeguarding the user privacy and ensuring the responsible use of IoT devices by general public has become a social attention lead organization to concern on their ethical business practices and effective governance. Provide suitable strategies and principles that can be implemented to address the alleged privacy infringements associated with IoT applications. (08 marks)

c) In the context of a world economic recession, how does the market for IoT (Internet of Things) equipment influence and interact with this scenario? Elaborate on the implications for market expansion, product development, and the overall market acceptability of IoT devices. (10 marks)

[Total: 28 Marks]

Question 2

Do you agree with the following statements? With your opinion briefly explain the answers to following statements. (3 marks each)

a) "Mission statements can and, in some cases, should evolve to reflect the changing dynamics and goals of an organization." (03 marks)

b) "Both strategy formulation and implementation are complex and critical processes, but strategy implementation is more challenging task than strategy formulation." (03 marks)

c) "Organizations always prefer outsourcing as an effective option to integration strategies." (03 marks)

d) "In an organization, Strategic Business Units (SBUs) categorized as 'cash cows' within the BCG matrix are the only generators of surplus cash for the organization.". (03 marks)

[Total: 12 Marks]

*(End of Part A)*

**PART B** *(Answer **any three (3)** questions from the following.)*

Question 3

To maintain competitiveness, organizations must prioritize accelerated learning, increased operational efficiency, and the cultivation of a customer-centric culture.

a) Describe the characteristics of a learning organization. (08 marks)

b) Elaborate on the significance of an organization's transformation into a learning organization. In your role as a Human Resources Manager operating in a competitive environment, describe the steps you would take to facilitate the transformation of the organization into a learning-centric entity and sustain a conducive learning environment. (12 marks)

[Total: 20 Marks]

Question 4

Ansoff Matrix, is a strategic planning tool used by organizations to analyze and plan their growth strategies.

a) Describe the Ansoff matrix with suitable illustrations. (08 marks)

b) Using relevant examples from the Sri Lankan business environment, explain the four distinct growth strategies outlined in the Ansoff Matrix. (12 marks)

[Total: 20 Marks]

Question 5

a) Core competencies within an organization require continuous nurturing and maintenance." Comment on this statement substantiating your viewpoint with relevant examples. (10 marks)

b) Competitive advantages held by an organization may be subject to time-bound relevance, with the potential for diminishing or obsolescence. Explain this statement, using the VIRO framework and suitable examples. (10 marks)

[Total: 20 Marks]

Question 6

Explain any two of the following.

a) The salient features of objectives and the importance of having clear objectives for strategy implantation. (10 marks)

b) Industry analysis and Micheal Porter's industry analysis model. (10 marks)

c) Any two diversification strategies that organizations can utilize providing suitable examples for each. (10 marks)

[Total: 20 Marks]

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