INTERNATIONAL UNIVERSITY OF EAST AFRICA
'Learning to Succeed'

FACULTY OF BUSINESS MANAGEMENT

END OF SEMESTER EXAMINATIONS - DECEMBER 2025

PROGRAMME: MBA
YEAR/SEM: YEAR 2/SEMESTER 1
COURSE CODE: MBA 823
NAME: INNOVATION AND STRATEGY

DATE:
TIME:

INSTRUCTIONS TO CANDIDATES:

SECTION A

Section A is a case study and it is Compulsory (40 marks)

Question 1:

Case Study 1

EcoLight Solar Solutions Powering Rural Congo

In 2018, Jean-Benoît Kalala, a young engineer from Lubumbashi in the Democratic Republic of Congo (DRC), started a company called EcoLight Solar Solutions**.** His idea came after visiting rural villages where most families lived without electricity. People used candles and kerosene lamps, which were expensive and dangerous.

Jean wanted to find an innovative solution to this problem. He designed **a** low-cost solar lamp that could charge mobile phones and give light for up to 10 hours. To make it affordable, he used recycled plastic bottles as lamp covers and imported small solar panels from Kenya.

At first, he faced challenges raising money, but he joined a government innovation program supported by the National Agency for Energy and Technology (ANET)**.** With a small grant, he was able to produce 1,000 lamps and sell them to schools and small shops.

Jean realized that many other people might copy his design, so he decided to protect his idea. He registered a patent for the solar lamp design, a trademark for his brand “EcoLight,” and a copyright for his marketing materials and product manual. These steps helped him build a trusted brand in the market.

EcoLight’s success quickly spread. The company now employs 25 young technicians, including women. It has brought light to more than 20,000 homes in rural Congo, helping children study at night and allowing small businesses to stay open longer.

However, EcoLight still faces challenges. Some communities cannot afford even the cheapest solar lamps, and fake products with the same design have started to appear on the market. Transporting products to remote areas is also expensive due to poor roads. Jean continues to look for ways to sustain innovation, such as building partnerships with microfinance institutions and introducing a “pay-as-

you-go” model for customers.

1. Explain how Jean-Benoît’s innovation at EcoLight Solar Solutions demonstrates the role of innovation in solving both business and societal challenges (10marks).
2. Analyze how intellectual property rights (patents, trademarks, copyrights) helped Jean protect and strengthen his business innovation (10marks).
3. Discuss how entrepreneurial traits and innovation strategy contributed to Jean’s success (10marks).
4. Evaluate the challenges EcoLight faces in sustaining innovation and suggest strategies to overcome them (10marks).

Question 2:

Case Study 2

FibreForm® Reinventing Paperboard Packaging

In recent years, growing environmental concerns, consumer pressure, and regulatory changes have driven the global packaging industry to seek sustainable alternatives to plastic. One breakthrough innovation that has attracted significant attention is FibreForm®, a formable paperboard material developed through a collaboration between EcoPack Solutions, a Scandinavian packaging manufacturer, and GreenEdge Technologies, a UK-based R&D firm.

Traditional paperboard packaging, though recyclable, has long been limited by its lack of moldability, strength, and moisture resistance. Plastic packaging, by contrast, offers superior protection and flexibility in shaping, which has made it dominant in sectors such as ready meals, frozen foods, and dairy. FibreForm® challenges this dominance by providing a renewable, biodegradable, and recyclable alternative capable of deep-drawing and thermo forming qualities that were previously achievable only with plastic.

The innovation behind FibreForm® lies in its high-pressure fiber forming technology, which allows paperboard to be stretched up to ten times more than conventional materials. It also features a proprietary bio-based barrier coating that provides moisture and grease resistance, making it suitable for direct food contact. EcoPack Solutions has described FibreForm® as “one of the most significant

packaging innovations in the history of the paperboard packaging industry," claiming it has the potential to replace up to 60% of single-use plastic trays currently on the market.

Despite its environmental promise, FibreForm® faces several challenges. The technology requires high initial investment costs for specialized machinery and tooling. There is also uncertainty in market demand, as many food manufacturers hesitate to switch from well-established plastic packaging systems. Furthermore, production speed and scalability remain concerns compared with existing plastic packaging lines, and the technology's compatibility with current filling and sealing equipment used by food producers has yet to be fully proven. At present, the cost per unit of FibreForm® packaging is still higher than plastic equivalents due to limited economies of scale.

To manage these risks, EcoPack Solutions has implemented a licensing model, granting selected converters and packaging producers exclusive rights to use FibreForm® in specific regions or product categories. This strategy helps control quality and build a strong brand reputation but has also raised concerns among potential partners regarding exclusivity and market access. Major food brands such as FreshDeli Foods and EcoEats Ltd**.** have expressed interest in the innovation but remain cautious. They fear that adopting the technology could expose them to supply risks if only a small number of licensed converters are permitted to produce FibreForm® packaging. In addition, they worry that competitors might later gain access to the same technology, undermining any temporary competitive advantage.

The commercialization process has also encountered a **"**chicken and egg" problem. Investors are reluctant to provide funding until large-scale purchase orders are secured, yet brand owners are unwilling to commit to those orders until the technology achieves greater production capacity and cost competitiveness. This interdependence between investment and demand has created a significant barrier to widespread adoption, even though the potential environmental and market benefits of FibreForm® remain highly promising.

1. Identify and explain two technical challenges that FibreForm® faces in production(10marks).
2. List two environmental benefits of FibreForm® compared with

plastic packaging (10marks).

3. Explain the “chicken and egg” problem described in the commercialization of FibreForm® (10marks).
4. Discuss why EcoPack Solutions uses an exclusivity-based licensing model for FibreForm®(10marks).

SECTION B

Answer any Three Question

Question 1:

1. Define innovation in your own words. Highlight the main elements and state the benefits of integrating innovation into a business strategy(20marks)**.**

Question 2:

1. Using examples, explain the role of the government in supporting innovation and technology growth. Propose policies or initiatives that a government could adopt to build innovation-driven growth in a late-industrializing country(20marks).

Question 3:

1. Identify and briefly explain the myths about innovation. Highlight the key traits of successful innovators or innovation systems(20marks).

Question 4:

1. Describe the main steps in the innovation process using real life examples and Analyse the key organisational characteristics that facilitate innovation(20marks).

Question 5:

1. How can a company protect its creative ideas using intellectual property rights? Explain how patents, brand names, trademarks and copyrights helps a business protect its identity and products(20marks).

Question 6:

1. Discuss how entrepreneurship sustains innovation within small and medium-sized enterprises (SMEs). (20marks).

Question 7:

1. Evaluate how academia, industry, and government work together to promote innovation, using the Triple Helix Model as a guide (20marks).

Question 8:

1. Using examples from your country or Africa, explain how digital innovation has transformed business and society(20marks).

Question 9:

1. Design a small innovation plan for your community that addresses a local problem and Suggest ways universities, government and industry can work together to promote innovation and entrepreneurship (20marks).

Question 10:

1. Using your knowledge of innovation models, identify one model of your choice and describe its key features. Then, analyze why this model is suitable for companies operating in your country (20marks)

Question 11:

1. Explain how innovations can be managed within organisations. Outline the processes, leadership roles, and resource management strategies required to ensure successful (20marks)

Question 12:

1. Analyse how uncertainties can be managed within the innovation process. Discuss strategies and approaches that organisations can use to anticipate, reduce, or adapt to uncertainty while maintaining innovation momentum (20marks)