



The Sustainable Entrepreneur's Guide

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eISBN 978-629-94545-7-1

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Acknowledgments

This publication is made possible with the support of the Commonwealth of Learning, Canada and Pusat e-Pembelajaran Universiti Malaysia Sabah.

Published by

Pusat e-Pembelajaran,
Aras 5, Blok B, Bangunan Fakulti Komputeran Informatik,
Universiti Malaysia Sabah,
88400 Jalan UMS, Kota Kinabalu Sabah, Malaysia

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This book was produced with Pressbooks (<https://pressbooks.com>) and rendered with Prince.

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Acknowledgements

I would like to extend my deepest gratitude to the Centre of e-Learning, Universiti Malaysia Sabah, and its Director, Prof. Dr. Fong Soon Fook, for their invaluable support in providing the platform and opportunity to publish this book. Their assistance was crucial in bringing this project to life. I also want to thank Ms. Shaidatul Nazirah Fakaruzaman from the e-Learning & ICT Operation Unit for her guidance and help.

Introduction

Sustainability can no longer be an option but a need in an ever fast paced world. Society is increasingly asserting the need for businesses to support ecological conservation, social welfare, and sustainable forms of profit. This eBook is a guide for students, entrepreneurs, and business enthusiasts that want to create innovative and impactful ventures.

These chapters are educational and lay the groundwork for developing a sustainable enterprise. They cover the basics of sustainability concepts and the practical application of a **circular economy**. Case studies, real-world examples, and glossary terms help make the content applicable and inspiring for readers.

Learning Objectives

By the end of this eBook, readers will be able to:

1. **Define** the concept of **sustainable entrepreneurship** and describe its significance in addressing environmental, social, and economic issues.
2. **Explain** the three pillars of sustainability (People, Planet, Profit) and their relevance to business practices.
3. **Identify** examples of **sustainable business models**, supply chains, and **eco-conscious consumer** trends.
4. **Discuss** key strategies for integrating sustainability into business plans and decision-making.

Chapter 1: What is Sustainable Entrepreneurship?

1.1 Defining the Core Concepts

Sustainable entrepreneurship is business-oriented activity that merges traditional entrepreneurship with a strong concern for environmental and social values. According to **Schaltegger and Wagner (2011)**, **sustainable entrepreneurship** is “*entrepreneurship that focuses on preserving nature, life support, and community while pursuing opportunities to create new products, processes, and services for a gain that includes economic and non-economic benefits to individuals, the economy, and society.*”

While traditional entrepreneurship is centred on profit-maximization, **sustainable entrepreneurship** is focused on **creating value in the long-run**, for stakeholders, communities, and for the earth. This approach to sustainability considers every aspect of a business, from product design to management and market entry.

| Aspect | Traditional Entrepreneurship | Sustainable Entrepreneurship |
|----------------------|-----------------------------------|--|
| Primary Goal | Profit maximization | Triple bottom line |
| Time Horizon | Short to medium-term gains | Long-term sustainability |
| Innovation Focus | Market trends and customer demand | Social innovation and environmental solutions |
| Stakeholder Approach | Shareholder-centric | Multi-stakeholder and environmental considerations |
| Resource Use | Linear: Take, make, dispose | Circular: Reduce, reuse, recycle |

Importance of Innovation

- **Sustainable entrepreneurship** takes the lead in **business, service and product innovation**. Entrepreneurs actively seek to solve social and environmental problems, such as **waste reduction** or increasing access to clean energy, and in doing so, they often discover opportunities for market disruption and competitive advantage.

Key Characteristics of Sustainable Entrepreneurs:

- **Vision:** They have foresight into where the environment and society are headed.
- **Purpose-driven:** To blend personal values with business objectives.
- **Social and environmentally responsible:** Act ethically and inclusively.
- **Long-term orientation:** Rather than focus on the quick win, focus on resilience and adaptability.
- **Innovation:** Envision new approaches to reduce the impact of environmental degradation.

1.2 Why It Matters in Today's World

- **Traditional business models** often cause negative outcomes like resource depletion and waste, which is why new approaches are needed to solve global challenges.
- **Sustainable entrepreneurship** offers a solution by focusing on **long-term viability, ethical practices, and positive impact.**
- It is increasingly significant as consumers, shareholders, and workers trust companies with a commitment to social and environmental responsibility more.

For example:

Eco-Friendly Practices

- **Waste Reduction:** A cafe could eliminate single-use plastic cups and provide a customer reusable cup. They might also be composting food waste.
- **Sustainable Sourcing:** A clothing company can use organic cotton or recycled polyester from suppliers that provide fair wages.
- **Energy Efficiency:** A small office space could install LED lighting and use low-energy appliances to reduce the electricity bill.

1.3 Examples of Sustainable Businesses

The Hive: A successful zero-waste business in Malaysia that was one of the first stores to launch the refill concept, promoting a **circular economy** and reducing the necessity for single-use packages. Customers can bring their own containers for bulk shopping of groceries, household goods, and personal products.

Biji-Biji Initiative: Biji-Biji is a social enterprise that is engaged with **upcycling** and ethical production. Their fame comes from making trendy bags and accessories out of waste material such as felt and seatbelts.

IOI Group: Malaysian-based IOI Group is the world leader in **sustainable palm oil production**, a global conglomerate. The company's plantations and manufacturing processes are highly sustainable, and they have a goal to reach net zero emissions by 2040.

1.4 Review Exercises



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<https://openbook.ums.edu.my/sustainablestartup/?p=29#h5p-1>

1.5 Key Terms

- **Sustainable Entrepreneurship:** The combination of traditional business goals with a concern for the environment and society.
- **Sustainable Business Model:** A business strategy that prioritizes creating value for the planet and its people, not just for financial gain
- **Eco-Friendly Practices:** Business actions aimed at reducing environmental harm, such as **waste reduction**, sustainable sourcing, and energy efficiency.
- **Social Impact:** A business's effect on society, including fair labor practices, **community engagement**, and solving social problems.
- **Circular Economy:** An economic system aimed at eliminating waste and the continuous use of resources. This is exemplified by the zero-waste store, The Hive.
- **Upcycling:** The process of transforming discarded materials into new products of higher value or quality, as demonstrated by the Biji-Biji Initiative.
- **Sustainable Palm Oil Production:** An example of a large corporation (IOI Group) adopting environmentally and socially responsible practices within a major industry.

Chapter 2: The Three Pillars of Sustainability (People, Planet, Profit)

2.1 The Social Pillar (People)

The social pillar focuses on justice, equality, and the health of employees, customers and communities. Socially conscious firms create positive brand images, brand loyalty, and trust by actively incorporating **diversity, fairness, inclusion, and overall employee well-being**, going above and beyond standard corporate responsibility.

- **Workplace Diversity & Inclusion:** Fostering a workforce with diverse backgrounds, viewpoints and experiences.
- **Employee Engagement:** Engaged employees are more productive and tend to stay in their jobs.
- **Fair Trade:** Fair wages, safe work conditions and ethically sourcing raw materials are vital in the development of a fair supply chain.

Case Study:

- **Sime Darby Plantation:** Invests in employee welfare, community development and supports thousands of smallholders through the Malaysian Sustainable Palm Oil (MSPO) certification.
- **Petronas:** Provides strong employee engagement programs, scholarships, and community empowerment efforts.

Global Frameworks:

- **ILO (International Labour Organization) Standards:** Establish safe and equitable labour conditions.
- **UN Sustainable Development Goals (SDGs):** Especially SDG 8 (Decent Work) and SDG 10 (Reduced Inequalities).

2.2 The Environmental Pillar (Planet)

The **environmental pillar** of the **triple bottom line** focuses on a business's efforts to minimize harm to the environment. This includes strategies like managing resource use, reducing waste, and protecting biodiversity.

- **Environmental Management Systems:** Standards such as **ISO 14001** help companies effectively control **environmental impacts**.
- **Life Cycle Assessment (LCA):** A measure or an evaluation of a product from its **environmental performance** from raw material extraction to disposal.
- **Carbon Neutrality & Renewable Energy:** Both consumers and corporations are spending money on developing solar, wind, and other renewable energy sources.
- **Biodiversity Conservation:** Ethical businesses help reforest and protect habitat.

Examples of Innovation:

- **Tesla** revolutionized e-vehicles and battery technology in transportation.
- **IKEA** invests in solar energy, sustainable sourcing, and higher energy efficient designs of products

2.3 The Economic Pillar (Profit)

Profitability is related to sustainability. Sustainable enterprise has benefits to a business's bottom line, **reduced operating costs**, greater **market access**, and increased **confidence from investors**.

- **Financial Sustainability Indicators:** Include profitability ratios, cost savings from **waste reduction**, and ROI on green investments.
- **Competitive Advantage:** Eco-conscious brands often attract premium pricing and customer loyalty.
- **Investor Interest:** ESG (Environmental, Social, Governance) metrics are now standard in investor evaluations.

For Example:

- **Nestlé Malaysia:** Through its Project RELeaf, the company is restoring ecosystems in Sabah and Sarawak, reducing carbon footprint, and attracting ESG-conscious investors while growing brand loyalty.
- **SP Setia Berhad:** Focuses on green townships (EcoHill, Eco Glades) and sustainable property development to enhance profitability while meeting ESG goals.

2.4 Review Exercises



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<https://openbook.ums.edu.my/sustainablestartup/?p=34#h5p-2>

2.5 Key Terms

- **Social Equity:** The principle of fairness and justice in a business's treatment of all stakeholders, including employees, customers, and the community.
- **Ethical Labor Practices:** Ensuring fair wages, safe working conditions, and humane treatment of all workers, both within the company and throughout its supply chain.
- **Community Engagement:** A company's role as a "good citizen" that contributes positively to the well-being of its local community.
- **Environmental Impact:** The effect a business's operations have on the natural world.
- **Resource Conservation:** Practices focused on reducing the consumption of natural resources, such as using renewable energy, minimizing waste, and conserving water.
- **Eco-friendly Materials:** Sourcing and using materials that are less harmful to the environment.
- **Financial Sustainability:** The ability of a business to be profitable and remain viable over the long term.
- **Value-based Customers:** Attracting a customer base that supports the business not just for its products, but also for its social and environmental values.
- **Sustainable Business Model:** A strategic framework designed to ensure a company's long-term success by adapting to future challenges and changes.

Chapter 3: Finding Your Sustainable Business Idea

3.1 Identifying Problems that Need Sustainable Solutions

A successful sustainable entrepreneur must first identify an urgent environmental, social, or economic challenge that needs a new solution. Like other entrepreneurs, they should **start with problems, not products**, to build something meaningful and impactful.

- **Global Sustainability Challenges:**
 - Climate change and extreme weather
 - Plastic pollution and ocean waste
 - Food insecurity and an inefficient food supply chain
 - Inequality or lack of educational, or health care opportunities
- **Tools for Opportunity Identification:**
 - **PESTEL Analysis:** Evaluate Political, Economic, Social, Technological, Environmental, and Legal factors to find gaps.
 - **SWOT Analysis:** Identify strengths, weaknesses, opportunities, and threats in the sustainability landscape.
 - **SDG Mapping:** Converge ideas with the UN Sustainable Development Goals to ensure relevance and impact.

Example:

GrubCycle Malaysia: Solved for food waste with an app that provides surplus food to consumers at a discounted price by

following the global “Too Good To Go” concept to Malaysia’s environment.

3.2 Market Research for Eco-Conscious Consumers

Knowing the audience is key to developing a **sustainable business model**. Eco-friendly and ethically produced products are not only becoming a mainstream cultural concern among Millennials and Gen Z, but these younger consumers also reportedly prefer to pay more for them.

- **Consumer Trends:**
 - Growing interest in plant-based diets and cruelty-free products
 - A preference for brands that they know have clear sustainability commitments
 - Growing need for used, restored, upcycled products
- **Market Research Tools:**
 - **Surveys & Focus Groups:** Direct consumer feedback.
 - **Customer Personas:** Develop profiles of **eco-conscious consumers** intricately detailing their pain points, values, and buying behaviours.
 - **Customer Journey Mapping:** A process for mapping sustainable brand engagement to visualize where a company could be doing better.

Example:

- **Zero Waste Earth Store:** A Malaysian zero-waste shop uses customer feedback to shape its products, offering refillable household items and packaging-free groceries to satisfy the country's growing eco-consumer community.
- **Reformasi Eco:** A Malaysian startup recycles furniture and home decor, leveraging its business savvy to tap into the urban

market of customers who want stylish, eco-friendly home solutions.

3.3 Brainstorming Innovative Business Concepts

Once opportunities are identified, the next step is **brainstorming innovative, sustainable solutions**. This method enables entrepreneurs to develop innovation products, services and systems.

- **Innovation Frameworks:**
 - **Design Thinking:** A human-centred approach that emphasizes empathy, ideation, prototyping, and testing.
 - **Blue Ocean Strategy:** Creating uncontested market spaces rather than competing within existing market space.
 - **Circular Economy Principles:** Design businesses for resource reuse, recycling, and regeneration.
- **Brainstorming Techniques:**
 - Mind-mapping the problems and potential solutions of sustainability
 - Applying ideas from one industry to another is known as cross-industry inspiration. For example, a tech company might apply an agricultural concept to improve its operations.
 - Engaging local communities in the process of generating ideas

Innovative Examples:

- **KLEAN Malaysia:** A reverse-vending machine that rewards recycling as an economy of consumer choice.
- **Fashion Revolution Malaysia:** Advocates for sustainable fashion, **upcycling**, and transparency in supply chains.

- **Green Lagoon Technology (GLT):** Focuses on biogas solutions for palm oil mills, converting waste to energy.

| Step | Key Action | Example |
|---------------------------|--|--|
| 1. Problem Identification | Identify a sustainability challenge you're passionate about. | Reducing single-use plastics in restaurants |
| 2. Customer Discovery | Interview potential customers about their pain points. | Restaurant owners seeking affordable eco-packaging |
| 3. Concept Ideation | Brainstorm potential solutions. | Compostable takeout containers |
| 4. Prototype Testing | Create a simple MVP (Minimum Viable Product). | Distribute samples to restaurants for feedback |
| 5. Market Fit Evaluation | Collect feedback and adjust offerings. | Adjust pricing or materials based on demand |

3.4 Review Exercises



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<https://openbook.ums.edu.my/sustainablestartup/?p=40#h5p-3>

3.5 Key Terms

- **Sustainable Solutions:** Innovative approaches to persistent global issues that integrate environmental and social responsibility.
- **Market Gaps:** Opportunities in the market where consumer needs are not being met by existing, traditional business models.
- **Eco-conscious Consumers:** A growing group of customers who prioritize social and environmental values and are willing to support businesses that align with those principles.
- **Consumer Values:** The beliefs and principles that influence a consumer's purchasing decisions, in this context, their preference for ethical and sustainable products.
- **Circular Economy:** A model of production and consumption that aims to keep products and materials in use for as long as possible, reducing waste.
- **Innovative Business Concepts:** Creative and non-traditional business ideas that integrate the three pillars of sustainability (People, Planet, Profit) from the outset.
- **Technology for Sustainability:** Using technological advancements to improve efficiency, reduce **environmental impact**, and enhance sustainable practices.

Chapter 4: Developing a Sustainable Business Plan

4.1 Integrating Sustainability into Your Mission and Vision

Every successful business begins with a strong mission and vision for the future that is clear, compelling, and articulates how one intends to apply his or her skills to contribute to the community and the planet.

- **Mission Statement:** The company's present purpose, values, and focus. For social enterprises, these must clearly encompass social and environmental objectives.
- **Vision Statement:** Describes the long-term, desired future impact. A sustainable vision has an underpinning of change that is enduring both for society and for the planet.

Tips for Writing a Sustainability-Driven Mission & Vision:

1. Use **clear, values-based language**, such as: "We exist to create zero-waste alternatives for everyday living."
2. Align with global and national relevance, the **United Nations Sustainable Development Goals (SDGs)**.
3. Focus on **addressing environmental and social challenges** in Malaysia, such as palm oil sustainability, waste management, and rural economic empowerment.

Malaysian Examples:

- **Sime Darby Plantation:** The company's mission for sustainable palm oil harvesting is achieved primarily through three key commitments: RSPO certification, careful stewardship of biodiversity, and support for smallholder farmers.
- **SP Setia Berhad:** Vision of developing eco-friendly townships (Setia Alam) with green building certifications and **community engagement**.

4.2 Creating a Triple Bottom Line (TBL) Business Model

The **Triple Bottom Line (TBL)** framework seeks to balance **People, Planet, and Profit**. Malaysian companies are now assessed not only by financial performance but also by their environmental and social profits or losses.

| Element | Focus Area | Example Metrics |
|-------------------------------|--|--|
| People (Social) | Employee welfare, diversity, community support | Employee training hours, fair wages, CSR initiatives |
| Planet (Environmental) | Environmental stewardship | Carbon footprint, renewable energy use, waste reduction |
| Profit (Economic) | Financial health and reinvestment | ROI, sustainable investments, market growth |

Using the Business Model Canvas with TBL Layers (Malaysian Context)

| Canvas Block | Sustainability Focus |
|-------------------|--|
| Value Proposition | Solve Malaysian-specific environmental or social problems (e.g., recycling systems, eco-packaging) |
| Customer Segments | Target eco-conscious Malaysian consumers and B2B partners |
| Key Resources | Local renewable energy, certified sustainable raw materials |
| Key Partners | NGOs like WWF Malaysia, government agencies (MGTC) |
| Revenue Streams | Impact-based pricing, carbon credit opportunities |
| Cost Structure | Energy efficiency, zero-waste manufacturing investments |

Malaysian Case Study:

- **Petronas:** Integrated TBL by investing on solar energy projects at Petronas New Energy and promoting ESG disclosures.
- **Nestlé Malaysia:** Focus on responsible sourcing of palm oil, empowerment of farmers, and plastic **waste reduction**.

4.3 Measuring Social and Environmental Impacts

Measurement of sustainability is crucial for Malaysian companies interested in securing ESG investments and obtaining funding or accreditation from the government and overseas.

- **Why Measure Impact in Malaysia?**
 - Comply to ESG disclosure requirements of Bursa Malaysia.
 - Creating a sense of trust amongst stakeholders in Malaysia's developing green economy.
 - Obtain **incentives** from the government, like the Green Investment Tax Allowance (GITA).
- **Key Impact Measurement Tools in Malaysia:**
 - **The Global Reporting Initiative (GRI) Standards** are used by Malaysian multinational companies like Sime Darby and Petronas
 - **Bursa Malaysia FTSE4Good Index:** Measures an ESG performance of the listed companies in Malaysia.
 - **Life Cycle Assessment (LCA):** Employed by firms such as **Top Glove** in tracking sustainability of glove production.
 - **SROI (Social Return on Investment):** Applied in CSR programs such as **Khazanah Nasional's Dana Impak** for rural development.

| Impact Category | Malaysian Example Metrics |
|-----------------|---|
| Social | Percentage of Malaysian suppliers trained on ESG standards; diversity ratio in workforce |
| Environmental | Reduction in water use in palm oil plantations (Sime Darby); percentage renewable energy in operations (Petronas) |
| Economic | Growth in green product sales; local SME support through supply chains |

Malaysian Example:

- **Nestlé Malaysia’s Project RELeaf:** Has a vision to plant three million trees by 2030 in efforts to offset carbon emissions and to promote biodiversity conservation in Sabah and Sarawak.
- **SP Setia’s Eco-Townships:** Use green building standards, incorporate sustainable drainage systems and **community engagement** programs.

4.4 Review Exercises



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<https://openbook.ums.edu.my/sustainablestartup/?p=45#h5p-4>

4.5 Key Terms

- **Mission Statement:** A formal declaration of a company's purpose that goes beyond profit to include specific social and environmental objectives.
- **Vision Statement:** A forward-looking declaration that outlines the positive impact a business aims to have on the world.
- **Sustainability Integration:** The process of embedding sustainable practices into all core functions of a business, from initial product development to final marketing.
- **Triple Bottom Line (TBL):** An accounting framework that expands the traditional focus on financial profit to include two additional dimensions: **people (social performance)** and **planet (environmental performance)**.
- **Social Performance:** A measure of a company's success in terms of its **social impact** on employees, communities, and other stakeholders.
- **Environmental Performance:** A measure of a company's success in reducing its ecological footprint.
- **Performance Measures:** Specific metrics used to track and evaluate a business's progress toward its sustainability goals.
- **Social Impact Quantification:** The process of using data (e.g., employee satisfaction scores, number of fair-wage jobs) to measure a company's positive social contributions.
- **Environmental Impact Quantification:** The process of using metrics (e.g., carbon footprint, **waste reduction**) to measure and report a business's **environmental performance**.

Chapter 5: Sustainable Sourcing and Supply Chains

5.1 Finding Ethical and Eco-Friendly Suppliers

Ethical sourcing implies collaboration with suppliers who focus on **fair labour, working environments, and product quality**. This is important in Malaysia, as the country is home to numerous industries, such as palm oil, electronics, and rubber, that are at the forefront of the global market.

Key Practices for Ethical Sourcing:

- **Supplier Vetting:** ESG (Environmental, Social and Governance) audits to be conducted to ensure Malaysian standard compliance, and international certifications.
- **Certifications to Consider in Malaysia:**
 - **RSPO (Roundtable on Sustainable Palm Oil):** Adopted by Sime Darby Plantation and FGV Holdings.
 - **MSPO (Malaysian Sustainable Palm Oil Certification):** Supports local smallholders.
 - **FSC (Forest Stewardship Council):** For responsibly sourced timber and paper.
 - **ISO 14001:** For environmental management systems.
- **Long-Term Partnerships:** Build trust with local SMEs and social enterprises to create resilient supply chains.

Malaysian Example:

- **Nestlé Malaysia** has partnered with over 1,300 smallholder farmers through its Nescafé Grown Respectfully program. This initiative helps improve farmer incomes and promotes regenerative agriculture practices.
- **Top Glove** has a strict code of conduct for suppliers to guarantee ethical labour practices.

5.2 Minimizing Waste and Maximizing Efficiency

Sustainable supply chains focus on **waste reduction, lean operations, and energy efficiency**. Malaysian firms pursue similar circular design best practices, along with digital solutions in logistics.

Key Strategies:

1. **Lean Manufacturing:** Eliminate unnecessary steps in production (used by Proton and Perodua for automotive efficiency).
2. **Digital Transformation:** Adopt AI and IoT technologies to enhance inventory control and decrease overproduction.
3. **Packaging Optimization:** Companies like **Grab Malaysia** and **Foodpanda** promote reusable or compostable packaging.
4. **Government Support:** The **Malaysia Plastics Sustainability Roadmap 2021-2030** fosters transition to green packaging.

Malaysian Example:

- **Sunway Group:** Employs smart waste management in Sunway City with underground vacuum waste collection systems to eliminate landfill waste.
- **Coca-Cola Malaysia:** Invested in recycling plants and lightweight PET bottles to decrease carbon emissions.

5.3 Circular Economy Principles in Action

A **circular economy** focuses on designing out waste, keeping products in use, and regenerating natural systems. Indeed, Malaysia's own **circular economy** is flourishing with several start-ups and projects to pave the way.

Key Circular Economy Principles:

1. **Design for Longevity:** Products are designed to be lasting and repairable.
2. **Product-as-a-Service Models:** Instead of purchasing products, companies rent or lease them.
3. **Reverse Logistics:** Companies design systems to take returned/used goods into collection for repair or recycling.

Malaysian Examples of Circular Economy in Action:

- **KLEAN Malaysia:** A rewards-based reverse vending machine network where consumers earn points for recycling PET bottles.
- **Biji-Biji Initiative:** **Upcycling** products like furniture, fashion and accessories from waste materials.
- **Penternak Circular Agriculture Startups:** Use food waste from urban areas to produce organic fertilizers.
- **Grab Malaysia:** The use of single-use plastic, a pilot on reusable food containers.
- **Sunway's Smart Sustainable City:** utilizes solar power, rainwater harvesting, and a circular waste model.

Framework Reference:

- The **Ellen MacArthur Foundation Circular Economy System**

Diagram can be localized for Malaysia to include urban recycling centres, community composting, and renewable energy technologies.

Practical Tip for Malaysian Entrepreneurs

| Step | Action | Malaysian Example |
|------------------------|--|---|
| 1. Supplier Screening | Check for certifications like RSPO, MSPO, FSC. | Sime Darby Plantation's MSPO compliance |
| 2. Lean Supply Chain | Digitize logistics to cut costs and emissions. | Proton's automation in supply chain |
| 3. Circular Design | Adopt reusable or refillable packaging. | Grab Malaysia pilot projects |
| 4. Local Collaboration | Partner with NGOs or government for impact. | MESTECC and MGTC green tech funding |

5.4 Review Exercises



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<https://openbook.ums.edu.my/sustainablestartup/?p=51#h5p-5>

5.5 Key Terms

- **Ethical Supply Chain:** A network of suppliers committed to fair labor practices, safe working conditions, and responsible sourcing.
- **Supplier Certifications:** Third-party verifications (like Fair Trade, ISO 14001, and Rainforest Alliance) that demonstrate a supplier's adherence to specific social or environmental standards.
- **Waste Reduction:** A core practice in sustainable supply chains that focuses on cutting down on waste at every stage, from production to delivery.
- **Logistics Optimization:** The process of improving a company's shipping and transport methods to reduce fuel consumption and a business's environmental footprint.
- **Circular Economy:** An economic system that aims to eliminate waste and keep resources in use for as long as possible. It is the opposite of the traditional **linear model** of "take-make-dispose."
- **Product Longevity:** Designing products to be durable and long-lasting, which reduces the need for frequent replacements and minimizes waste.
- **Take-back Program:** A system where a business takes back old or used products from customers for recycling, repair, or reuse.

References

Almici, A. (2022). *Triple Bottom Line* (pp. 621–624). <https://doi.org/10.4337/9781800377486.triple.bottom.line>

Cici, C., & D’Isanto, D. (2017). *Integrating Sustainability into Core Business*. 1, 50–65. <https://doi.org/10.4468/2017.1.05CICI.DISANTO>

Feng, J. B., & Zhang, X. (2024). *Teaching Social Impact Measurement to Enable Socially Savvy Decisions in Business* (pp. 89–107). https://doi.org/10.1007/978-3-031-50168-5_5

Guterman, A. (n.d.). *Community Engagement*. <https://doi.org/10.2139/ssrn.3833135>

Guterman, A. S. (2023). *Sustainability and Human Rights Standards and Instruments Relating to Labor Practices*. *Social Science Research Network*. <https://doi.org/10.2139/ssrn.4551042>

Inghels, D. (2020). *Quantification of the Environmental Impact* (pp. 89–107). Springer, Cham. https://doi.org/10.1007/978-3-030-58422-1_5

Kiyani, M. S. (2023). *Role of technological integration in business sustainability*. 2(1), 73–83. <https://doi.org/10.56596/jrds.v2i1.104>

Long, T. B. (2019). *Sustainable Business Strategies*. 1–11. <https://research.rug.nl/en/publications/sustainable-business-strategies>

Nicolopoulou, K., Karataş-Özkan, M., Janssen, F., & Jermier, J. M. (Eds.). (2017). *Sustainable entrepreneurship and social innovation*. London: Routledge Taylor & Francis Group Earthscan from Routledge.

Patnaik, S., & Patnaik, A. (2024). *Adoption of Eco-Friendly Waste Reduction Practices in the Clothing Retail Sector in Cape Town*. *Textile & Leather Review*, 7, 1360–1376. <https://doi.org/10.31881/tlr.2024.158>

Puig Ventosa, I., & Martínez Sánchez, V. (2023). *Circular economy* (pp. 48–55). Edward Elgar Publishing. <https://doi.org/10.4337/9781802200416.ch09>

Septiani, V., & Murwaningsari, E. (2024). Pengaruh kecukupan modal, efisiensi operasional dan diversifikasi pendapatan terhadap financial sustainability. *Jurnal Akuntansi Dan Audit Tri Bhakti*, 3(1), 129–145. <https://doi.org/10.59806/jaatb.v3i1.331>

Thomas, P., & Kayarkatte, N. (2024). Eco-Conscious Consumption. *Advances in Logistics, Operations, and Management Science Book Series*, 1–26. <https://doi.org/10.4018/979-8-3693-2219-2.ch001>

Weidinger, C. (2014). *Sustainable entrepreneurship business success through sustainability*. Springer.

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Appendix



Zero Waste Shops in Kuala Lumpur & Klang Valley

(Source: Glitz by Beauty Insider, 2024)



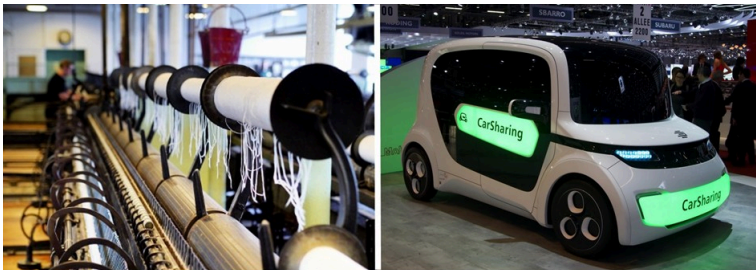
UNIQLO Unveils the 'Doraemon Sustainability Mode'

(Source: Glitz by Beauty Insider, 2024)



100 Plastic Recycling Ideas: Transform Waste into Practical Solutions

(Source: Easy-Peasy.AI, 2025)



Business Models for Sustainable Manufacturing

(Source: Wikimedia Commons, 2024)

Glossary

circular economy

An economic system aimed at eliminating waste and the continuous use of resources, where products and materials are kept in use for as long as possible.

Community Engagement

A company's role as a "good citizen" that contributes positively to the well-being of its local community.

Consumer Values

The beliefs and principles that influence a consumer's purchasing decisions, specifically their preference for ethical and sustainable products.

eco-conscious consumers

A growing group of customers who prioritize social and environmental values and are willing to support businesses that align with those principles.

Eco-friendly Materials

Sourcing and using materials that are less harmful to the environment.

Eco-Friendly Practices

Business actions aimed at reducing environmental harm, such as waste reduction, sustainable sourcing, and energy efficiency.

environmental impact

The effect a business's operations have on the natural world.

Environmental Impact Quantification

The process of using metrics (e.g., carbon footprint, waste reduction) to measure and report a business's environmental performance.

environmental performance

A measure of a company's success in reducing its ecological footprint

Ethical Labor Practices

Ensuring fair wages, safe working conditions, and humane treatment of all workers, both within the company and throughout its supply chain.

Ethical Supply Chain

A network of suppliers committed to fair labor practices, safe working conditions, and responsible sourcing.

Financial Sustainability

The ability of a business to be profitable and remain viable over the long term.

Innovative Business Concepts

Creative and non-traditional business ideas that integrate the three pillars of sustainability (People, Planet, Profit) from the outset.

Logistics Optimization

The process of improving a company's shipping and transport

methods to reduce fuel consumption and a business's environmental footprint.

Market Gaps

Opportunities in the market where consumer needs are not being met by existing, traditional business models.

Mission Statement

A formal declaration of a company's purpose that goes beyond profit to include specific social and environmental objectives.

Performance Measures

Specific metrics used to track and evaluate a business's progress toward its sustainability goals.

Product Longevity

Designing products to be durable and long-lasting, which reduces the need for frequent replacements and minimizes waste.

Resource Conservation

Practices focused on reducing the consumption of natural resources, such as using renewable energy, minimizing waste, and conserving water.

Social Equity

The principle of fairness and justice in a business's treatment of all stakeholders, including employees, customers, and the community.

Social Impact

A business's effect on society, including fair labor practices, community engagement, and solving social problems.

Social Impact Quantification

The process of using data (e.g., employee satisfaction scores, number of fair-wage jobs) to measure a company's positive social contributions.

Social Performance

A measure of a company's success in terms of its social impact on employees, communities, and other stakeholders.

Supplier Certifications

Third-party verifications (like Fair Trade, ISO 14001, and Rainforest Alliance) that demonstrate a supplier's adherence to specific social or environmental standards.

Sustainability Integration

The process of embedding sustainable practices into all core functions of a business, from initial product development to final marketing.

sustainable business model

A strategic framework or business strategy that prioritizes creating value for the planet and its people, not just for financial gain. It is designed to ensure a company's long-term success by adapting to future challenges and changes.

sustainable entrepreneurship

The combination of traditional business goals with a concern for the environment and society.

sustainable palm oil production

An example of a large corporation adopting environmentally and socially responsible practices within a major industry.

Sustainable Solutions

Innovative approaches to persistent global issues that integrate environmental and social responsibility.

Take-back Program

A system where a business takes back old or used products from customers for recycling, repair, or reuse.

Technology for Sustainability

Using technological advancements to improve efficiency, reduce environmental impact, and enhance sustainable practices.

Triple bottom line

An accounting framework that expands the traditional focus on financial profit to include two additional dimensions: people (social performance) and planet (environmental performance).

Upcycling

The process of transforming discarded materials into new products of higher value or quality.

Value-based Customers

Attracting a customer base that supports the business not just for its products, but also for its social and environmental values.

Vision Statement

A forward-looking declaration that outlines the positive impact a business aims to have on the world.

Waste reduction

A core practice in sustainable supply chains that focuses on

cutting down on waste at every stage, from production to delivery.

eISBN

The Sustainable Entrepreneur's Guide

e ISBN 978-629-94545-7-1



(Online)