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# **Sustainability and Circular Economy as Strategic Advantages for Finnish Companies Entering Singapore**

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## **Thesis abstract**

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This thesis explores how Finnish companies can effectively enter the Singaporean market by leveraging sustainability as a competitive advantage. With global business increasingly focused on environmental responsibility, Singapore offers a dynamic market that emphasizes sustainability through government initiatives and consumer demand. This study examines the opportunities for Finnish companies to meet local sustainability expectations by focusing on circular economy principles, consumer preferences, and strategic partnerships.

The study employs a mixed-method approach, analyzing opportunities and challenges using both quantitative surveys and qualitative interviews. The findings reveal that while Singaporean consumers are increasingly drawn to sustainable products and services, price sensitivity remains a critical element. To be successful, Finnish companies must strike a balance between sustainability and cost. Partnerships and product customization are also essential for meeting local regulations and consumer expectations.

Drawing on these findings, practical recommendations are offered for Finnish companies, addressing both the challenges and opportunities presented by Singapore's sustainability-focused market. It concludes that aligning business practices with local sustainability goals not only enhances brand reputation but also strengthens market competitiveness. Applying circular economy principles and forming strategic partnerships can help Finnish companies build a sustainable presence in Singapore.

<sup>1</sup> Keywords: Sustainability, Market Entry, Circular Economy, Finnish Companies, Singapore

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## Opinnäytetyön tiivistelmä

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Tämä opinnäytetyö tutkii, kuinka suomalaiset yritykset voivat tehokkaasti etabloitua Singaporen markkinoille hyödyntämällä kilpailuetuna ekologista kestävyttä. Globaalin liiketoiminnan painottaessa yhä enemmän ympäristövastuuta Singapore tarjoaa dynaamiset markkinat, joilla korostuu ekologinen kestävyys valtion kehittämisalotteiden ja kuluttajakysynnän kautta. Tämä tutkimus tarkastelee suomalaisten yritysten mahdollisuuksia täyttää paikalliset kestävyysodotukset keskittymällä kiertotalouden periaatteisiin, kuluttajien mieltymyksiin ja strategiaan kumppanuuksiin.

Tutkimuksessa analysoidaan mahdollisuuksia ja haasteita käyttäen sekä kvantitatiivisia kyselyitä että kvalitatiivisia haastatteluja. Tulokset osoittavat, että vaikka singaporelainen kuluttajakunta suosii yhä enemmän ympäristöystävällisiä tuotteita, hintatietoisuus on edelleen kriittinen tekijä. Onnistuakseen suomalaisyritysten on löydettävä tasapaino kestävyuden ja kustannustehokkuuden välillä. Kumppanuudet ja tuotteiden räätälöinti ovat myös keskeisiä paikallisten säädösten ja kuluttajien odotusten täyttämiseksi.

Näiden löydösten pohjalta tarjotaan suomalaisyrityksille käytännön suosituksia liittyen Singaporen kestävyyspainotteisten markkinoiden haasteisiin ja mahdollisuuksiin. Tutkimuksessa päädytään siihen, että liiketoiminnan käytäntöjen mukauttaminen paikallisiin kestävyystavoitteisiin ei ainoastaan paranna brändin mainetta vaan myös vahvistaa kilpailukykyä. Kiertotalouden periaatteiden soveltaminen ja strategisten kumppanuuksien solmiminen voivat auttaa suomalaisia yrityksiä luomaan kestävästä läsnäolon Singaporen nopeasti kehittyvillä markkinoilla.

<sup>1</sup> Asiasanat: kestävyys, markkinoille etabloituminen, kiertotalous, suomalaiset yritykset, Singapore

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**Terms and Abbreviations**

<b>CE</b>	Circular Economy
<b>OLI</b>	Ownership-Location-Internationalization
<b>EUSFTA</b>	EU-Singapore Free Trade Agreement
<b>PaaS</b>	Product-as-a-Service
<b>FDI</b>	Foreign Direct Investment
<b>LBM</b>	Linear Business Model
<b>CBM</b>	Circular Business Model
<b>CSR</b>	Corporate Social Responsibility
<b>PEST</b>	Political, Economic, Social, Technological
<b>NEA</b>	National Environmental Agency
<b>NGO</b>	Non-Governmental Organization
<b>SGX</b>	Singapore Exchange
<b>ESG</b>	Environmental, Social, Governance
<b>BCA</b>	Building Construction Authority
<b>MAS</b>	Monetary Authority of Singapore

# 1 INTRODUCTION

## 1.1 Background and Context

The direction of this study is influenced by the author's personal connection to both countries, growing up in Singapore and living in Finland for close to a decade. This experience provides a deep understanding of the distant market dynamics and business practices of the two countries.

Sustainability is set to change the global business world as an increasing number of businesses understand that they need to adopt sustainable practices. The circular economy concept refers to a way in which we can reduce waste and retain the value of products, materials or resources for as long as possible to build effective self-sustaining systems that benefit environment factor while growing the economic system. In contrast, the linear economy that follows a 'take-make-dispose' model is unsustainable because of scarce resources and increased environmental challenges.

Singapore is a globally recognized financial center recognized for its efficiency and innovation. Initiatives such as the Singapore Green Plan 2030 and the Zero Waste Master Plan aim to promote sustainable growth through enhancing clean energy, recycling and waste minimization. This makes Singapore an attractive option for foreign companies that prioritize sustainable practices.

Finnish companies, renowned for their innovative and environmentally conscious practices, are well-positioned to enter markets like Singapore, where sustainability is a key focus. Finland's expertise in sustainable technology aligns closely with Singapore's sustainability goals, creating mutual benefits. By entering Singapore, Finnish companies can leverage their sustainability expertise to meet local demand and contribute to Singapore's green initiatives.

This thesis looks at how Finnish businesses might enter and thrive in the Singaporean market by using sustainable business methods. This study provides insights into how Finnish companies can navigate local regulations, meet customer preferences, and establish

strategic partnerships that promote long-term success using a mixed-methods approach that blends qualitative interviews and quantitative surveys. The thesis also addresses the challenges that companies may encounter, such as pricing sensitivity and customizing products to meet regional demands, while providing actionable recommendations for Finnish companies looking to achieve sustainable growth in the region.

This research is not only timely but also essential, as it addresses the intersection of global sustainability trends and local market dynamics, providing a comprehensive guide for Finnish companies to successfully navigate the complexities of the Singaporean market. By understanding and implementing circular economy principles, Finnish companies can enhance their competitive edge, contribute to Singapore's sustainability goals, and foster a more sustainable future for both countries.

## **1.2 Research Objectives**

To examine the implications of sustainable business practices in Singapore for Finnish companies seeking to expand into the market, this study outlines the following research objectives:

1. To assess Singapore's sustainability landscape.
2. To understand Singaporean consumers' preferences for sustainable products and services and how Finnish companies can meet these demands.
3. To investigate how the circular economy model can be effectively applied by Finnish companies in Singapore.
4. To identify and analyze sustainability-driven opportunities and appropriate market entry strategies within the Singaporean market for Finnish companies.
5. To provide practical recommendations for Finnish companies on navigating the Singaporean market with a sustainability focus.

### **1.3 Rationale**

The rationale of this research is brought about by the increasing focus on sustainable development worldwide and Singapore is among the front runners in advocating for sustainability. Long term success for Finnish companies entering the Singaporean market depends on their capability to understand and align with the local sustainability dynamics.

### **1.4 Research Questions**

- What are the key sustainability initiatives in Singapore and how do they impact business operations and consumer behaviour?
- How can Finnish companies adapt their products and services to meet Singaporean consumer preferences?
- What challenges and opportunities do Finnish companies face when integrating sustainability and circular economy practices in Singapore?
- What market entry strategies are most effective for Finnish companies looking to operate in Singapore?

## 1.5 Structure of the Thesis

**Introduction:** The relevance of the Singaporean market for Finnish companies is discussed in this section, which also introduces the concept of sustainability in international business and provides background information for the study. A brief introduction of the internationalization process and the reason for internationalization is also provided.

**Target Market:** Brief market research about Singapore and the current trade relationship between Finland and Singapore will be presented.

**Theoretical Framework:** The theoretical framework is formed by drawing on the following key concepts: market entry modes, sustainability as a competitive advantage and the circular economy. The integration of these concepts will provide a solid theoretical foundation for analyzing the opportunities and challenges faced by Finnish companies in adopting sustainable business practices in Singapore.

**Methodology:** This section provides an explanation of the mixed-method approach, combining qualitative interviews and quantitative surveys and details the data collection and analysis methods.

**Results:** Findings from the interviews and survey are interpreted in this chapter.

**Recommendations:** Actionable strategies and suggestions for Finnish companies to capitalize on opportunities in the Singaporean market will be provided.

**Conclusion:** The main findings and insights presented in this thesis will be summarized.

**References:** A detailed list of all sources cited in this thesis will be provided in accordance with the APA seven referencing style.

## 1.6 Internationalization in Business

According to Hollensen (2011, p. 6), internationalization is the process by which companies expand their operations beyond domestic borders to tap into foreign markets. This is a strategic move that many companies pursue to increase their reach, revenue, and competitive advantage.

Johanson and Vahlne's (1977) Uppsala model describes internationalization as a gradual process. It suggests firms first enter new markets with lower-risk strategies like exporting and gradually increase their commitment as they gain more knowledge about the market. Figure 1 below depicts the Uppsala Model of Internationalization.

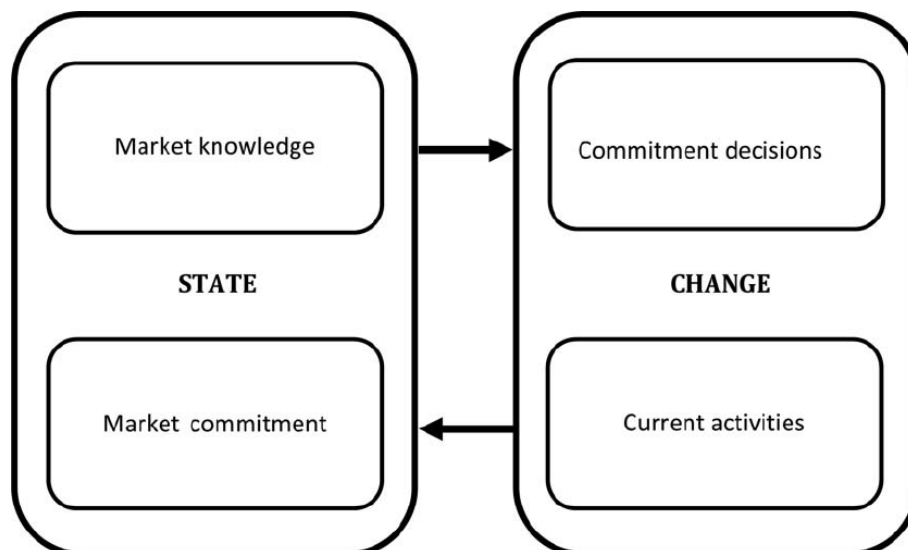


Figure 1. Uppsala Model of Internationalization (Johanson & Vahlne, 1977).

### Reasons to Enter an International Market

There are many reasons why companies choose to go global. In his book, Czinkota (2013, p. 8) categorized the reasons into two categories. The two reasons are:

1. Proactive motivations
2. Reactive motivations

Proactive motivation involves developing a new strategy plan to capitalize on market opportunities or gain a competitive edge. This type of company may choose to expand internationally as a strategic move.

Reactive motivation refers to companies that can readily adjust to the changes and the strain generated by the environment as a whole. These companies go global because it is what is needed to be done, which is the exact opposite of proactive.

Table 1 displays the varied motivations that lead the two groups to internationalize.

Table 1. Why Companies Go International

<b>Proactive Stimuli</b>	<b>Reactive Stimuli</b>
Profit	Competitive Pressures
Unique product	Overproduction
Technological advantage	Declining domestic sales
Economies of scale	Saturated domestic markets

Finnish companies, known for their sustainable innovations, have a unique opportunity to tap into Singapore's forward-looking business environment. The Uppsala Model of internationalization, which emphasizes gradual market entry and learning through experience, is particularly relevant. Finnish companies often begin with smaller investments or partnerships before scaling up, a method suited to navigating the regulatory and cultural landscape in Singapore.

## 2 SINGAPORE AS A TARGET MARKET

Singapore is a small island city-state nestled at the southern tip of the Malay Peninsula. Since gaining independence in 1965, Singapore has emerged as one of the richest nations in the world, despite its relatively small size. With almost 6 million people living there as of 2023, Singapore's population consists of Chinese (74.3%), Malay (13.4%), Indian (9%), and other (3.2%) ethnic groups (The World Fact Book, 2023).

Table 2. Information about Singapore

Official Name	Republic of Singapore
Currency	Singapore Dollars
Official Languages	English, Mandarin, Malay, Tamil
Total area	735.6 sq. km
GDP (PPP) Total	\$794.179 billion (2024 estimate)
GDP (PPP) per capita	\$133.737 (2024 estimate)
Rate of inflation	4.82%

Singapore is a member of the following international trade organizations, the World Trade Organization (WTO), Asia-Pacific Economic Cooperation (APEC), and the Association of Southeast Asian Nations (ASEAN) (TMF Group, 2024).

The country's economy relies on overseas trade and transportation services. The port of Singapore is ranked second in terms of size in the world. Singapore's Changi Airport is often ranked as the greatest in the world. Furthermore, banking and financial services are also

crucial areas that contribute to the country's economy. Singapore has the highest trade and investment of any Asian nation, making it the most business-friendly place in the world. According to EIU's business environment rankings in 2023, Singapore has the world's best business environment for 15 consecutive years (Economist Intelligence, 2023).

## **2.1 Finland-Singapore Trade Relation**

Diplomatic ties were established between Finland and Singapore on February 7, 1973 (Ministry of Foreign Affairs Singapore, 2023). Over the past few decades, trade relations between Singapore and Finland have been growing progressively, characterized by complementary strengths and mutual economic goals.

According to an article by Finland Abroad (2019), Singapore is Finland's and the European Union's largest trading partner in Southeast Asia. Since both nations are renowned for their innovative economies and dedication to sustainable development, they are ideal partners in a number of industries, most notably in technology, renewable energy, and environmentally friendly corporate practices.

On November 21, 2019, the EU-Singapore Free Trade Agreement (EUSFTA) came into effect. More Finnish companies may choose to internationalize in Singapore and utilize it as a gateway to other Southeast Asian nations as a result of this free-trade agreement between the European Union and Singapore. Almost all customs tariffs would be eliminated because of the free trade agreement, which would also improve bureaucracy (European Commission, n.d.-a). The agreement intends to advance the food, pharmaceutical, and technology sectors.

Based on OEC World's (n.d.-a) data, Singapore exported \$333 million worth of goods to Finland in 2022. Refined petroleum (\$148 million), integrated circuits (\$93.6 million), and therapeutic appliances (\$9.41 million) were Singapore's top exports to Finland. Singapore's exports to Finland rose at an annualized rate of 2.56% during the previous 27 years, from \$168 million in 1995 to \$333 million in 2022.



### 3 MARKET ENTRY MODES

Once a company decides to enter a new market, choosing the right market entry mode becomes a crucial decision. This decision depends on factors like the company's resources, risk tolerance, and long-term strategic goals. According to Kotler's (2009) model, there are five market entry modes into foreign markets ranging from low-commitment options to high-commitment options.

The figure below depicts the five modes of entry, with increasing levels of commitment, risk, control and profit potential from bottom to top.

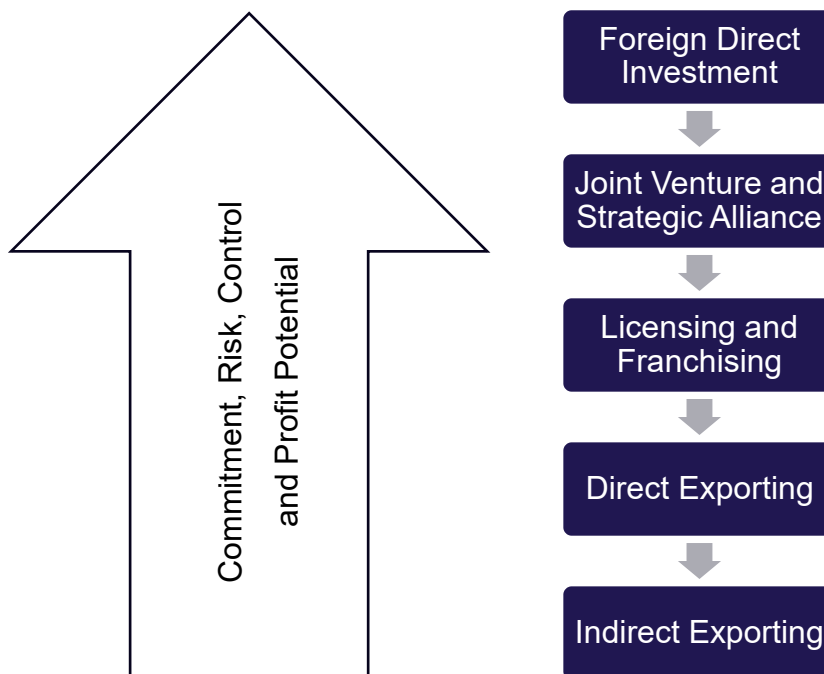


Figure 4. Modes of Entry into Foreign Markets.

In the following section, each mode of entry will be discussed in brief. After which, a table summary of the advantages and disadvantages of each mode of entry will be presented.

### 3.1 Exporting

This is the most common and low-risk mode of internationalization where companies can export their goods directly or through intermediaries. This enables companies to sell their products abroad without establishing a local presence.

### 3.2 Licensing and franchising

Licensing is when a company (the licensor) grants another company (the licensee) the right to produce and sell its products in the foreign market. In return, the licensor receives a royalty fee. Franchising is similar to licensing but usually involves a more comprehensive package. This includes branding, marketing, and operational support. The franchisor provides the franchisee with the right to operate under its brand in exchange for a fee.

In international business, franchising may include three parties: the franchisor, a master franchisee, and a franchisee. The franchisor manages and directs operations in a direct system. Whereas in indirect franchising system a master franchisee, sometimes known as a sub franchisor, builds and serves its own subsystem inside a region that is successful if the master franchisee is committed and have the ability. The advantages of this method include access to local resources and expertise. However, the loss of control is regarded as a drawback. The differences between direct and indirect franchising models are presented in the figure below.

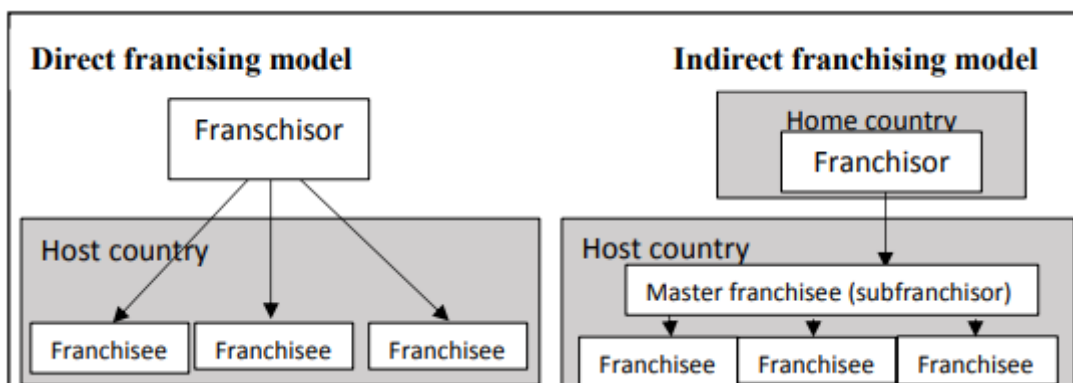


Figure 5. Direct and Indirect Franchising Models (Hollensen, 2011, p. 362).

### 3.3 Joint venture and strategic alliance

Joint venture involves partnering with a local firm to help navigate the country's regulations and better understand consumer preferences. This mode allows both parties to contribute resources and share risks. In a strategic alliance, two companies may cooperate for a specific purpose without creating a new legal entity. This could be beneficial for research and development or sharing the distribution networks.

### 3.4 Foreign Direct investment

Foreign direct investment involves establishing a direct presence into the foreign market by setting up operations. For instance, through a subsidiary, acquiring an existing company or establishing a production facility. This mode offers greater control and flexibility but requires more resources.

Table 3. Advantages and Disadvantages of the Entry Modes

<b>Market Entry Mode</b>	<b>Advantages</b>	<b>Disadvantages</b>
<b>Exporting</b>	Low cost and risk Easy market entry or exit	Limited control over marketing and distribution Trade Barriers
<b>Licensing and Franchising</b>	Low investment and risk Local market knowledge	Less control over brand and quality Risk of future competitions
<b>Joint Ventures and Strategic Alliances</b>	Shared risk and investment Shared expertise	Incompatibility of Partners Shared control
<b>Foreign Direct Investment</b>	Full control over operations Proximity to customers	High capital investment and risk Complex local regulations

There is no “right” way on choosing the market entry mode. The choice depends on these two factors, internal factors and external factors. Internal factors refer to a company’s internal environment, whereas external factors refer to its outside environment.

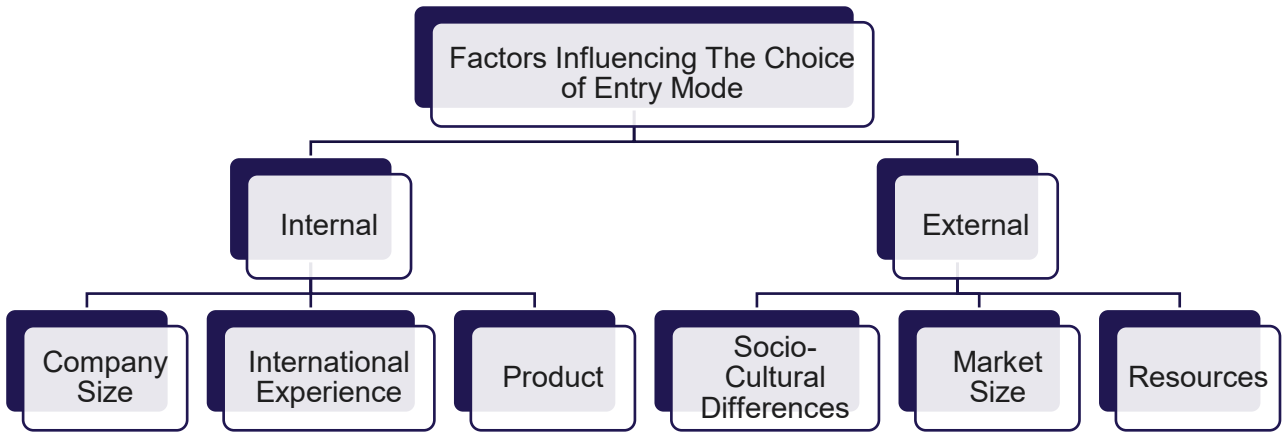


Figure 6. Factors Influencing the Choice of Entry Mode.

According to Root’s (1994) approach, it is advised to choose the entry mode that maximizes profit while staying within the limitations imposed by risk, nonprofit objectives and the availability of company resources.

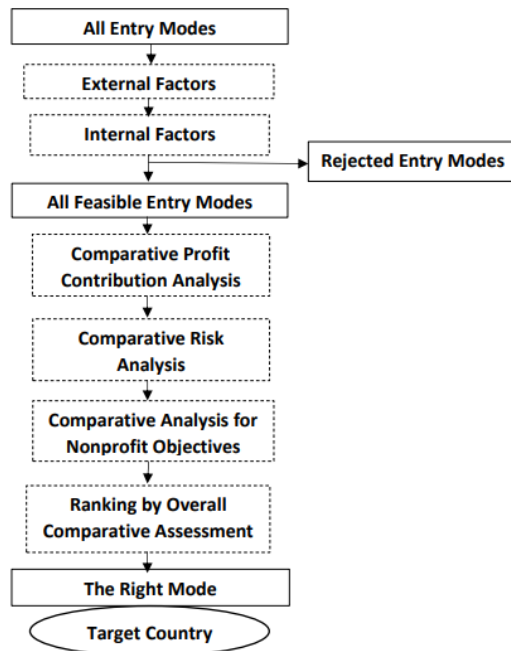


Figure 7. The Right Entry Mode (Root, 1994, p. 187).

Therefore, companies must carefully evaluate these factors and select the market entry mode that best aligns with their goals and the specific opportunities and challenges of entering their target market.

One good way is to refer to the “OLI paradigm” during the decision-making process. OLI stands for Ownership, Location, and Internalization Advantage. This paradigm states that a company cannot effectively participate in FDI unless it possesses all three benefits.

Should one or more of these benefits be absent, the company may choose to use an alternative entry-mode approach. Below, each of the three benefits will be covered in more detail:

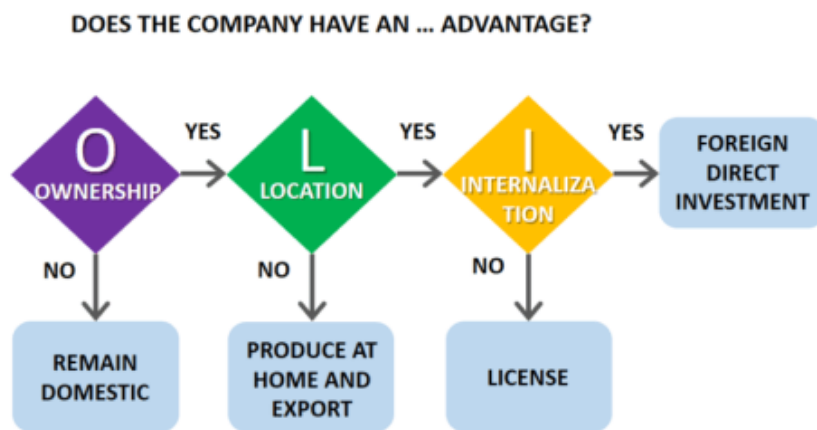


Figure 8. OLI Paradigm (Business to you, 2016).

## **4 SUSTAINABILITY IN BUSINESS**

With the 1987 release of the Brundtland Report by the United Nations World Commission on Environment and Development, sustainability became more widely discussed (Portney, 2015, p. 2). According to the report, sustainable development can be defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (Portney, 2015, p. 3). Businesses are realizing more and more that they must implement sustainable practices in order to maintain long-term profitability and resilience in the face of global issues including climate change, resource depletion, social injustice, and ethical concerns.

### **4.1 Sustainability as a Competitive Advantage**

As sustainability becomes a more crucial factor for gaining a competitive edge, focusing on sustainability can help companies stand out, reduce cost and strengthen long-term resilience. Michael Porter introduced the Porter’s Generic Strategies in his book.

### **4.2 Porter’s Theory of Competitive Advantage**

According to Porter (2008, p. 12), these are ways companies can develop an “edge” that sets them apart from competitors. The generic strategies are “cost leadership”, “differentiation” and “focus”. The focus strategy is then subdivided into two parts “cost focus” and “differentiation focus”. The Porter’s Generic Strategies is shown in the figure below.

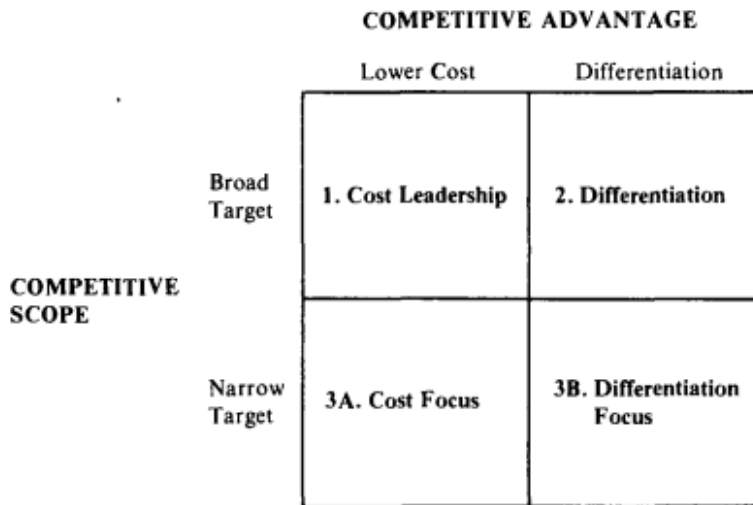


Figure 9. Porter's Generic Strategies (Porter, 2008, p. 12).

Michael Porter's theory of competitive advantage provides a framework for understanding how sustainability can be leveraged for differentiation. Porter (2008) argues that companies can achieve competitive advantage by either offering lower prices than their competitors through cost leadership or by providing unique products or services that are valued by customers through differentiation.

Sustainability fits into the differentiation strategy, where companies can stand out by offering environmentally friendly products, services, or practices that meet the growing consumer demand for socially responsible choices. Porter's theory highlights how differentiation also contributes to cost leadership. Sustainable business practices such as reducing waste and utilizing renewable resources, can lead to long-term cost savings. By embracing sustainability, companies can not only differentiate themselves but also improve their cost efficiency, leading to a more robust competitive advantage.

For companies to further strengthen their competitive position and ensure that they remain agile in a rapidly evolving market, it is recommended to combine these strategies with innovative approaches like the circular economy. In the next section, the circular economy concept will be explained in detail.

### 4.3 The Circular Economy Concept

Our existing economic system may be described as a "linear economy," with raw materials extracted from nature, turned into products, and ultimately discarded as trash. Currently, only 7.2% of spent materials are recycled back into our economies after usage (United Nations Development Programme, 2023). This places a considerable strain on the ecosystem and contributes to the climate, biodiversity, and pollution problems.

The term "Circular Economy" was coined by Pearce and Turner in 1990 in their book *Economics of Nature and the Environment* (Szczygiel, 2021). According to Korhonen et al. (2018), a circular economy is based on social production-consumption systems that optimize the flow of materials and energy between nature and civilization. Although it is a relatively new, the circular economy concept has become increasingly popular as companies and governments seek long-term solutions to address environmental issues and resource constraints. It is a shift from the "take-make-dispose" linear economy model and is based on three fundamental ideas of designing out waste and pollution, preserving materials and products, and restoring natural systems (Ellen MacArthur Foundation, n.d.).

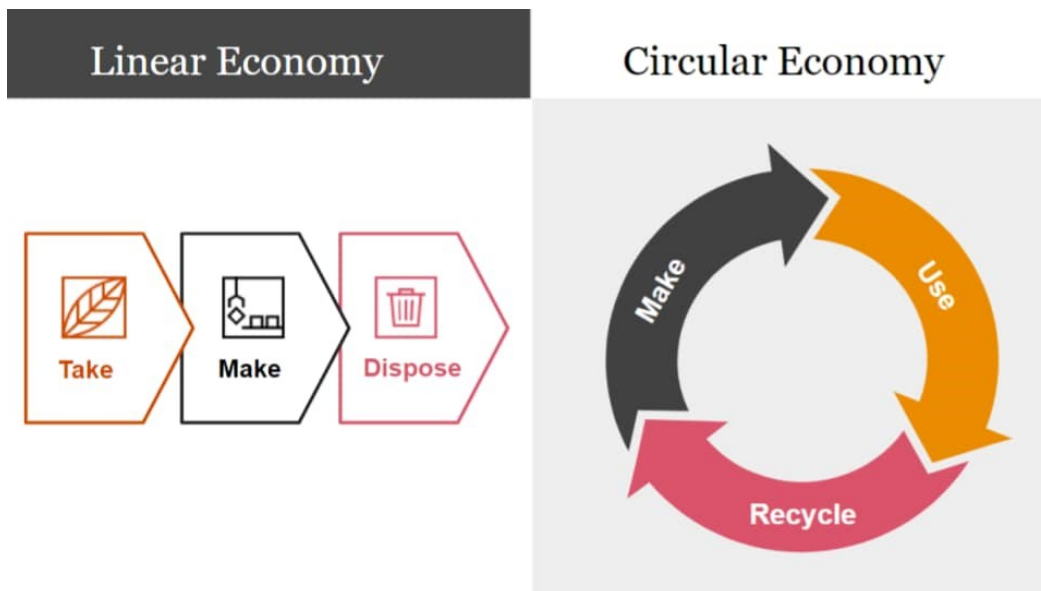


Figure 10. Shift from Linear Economy to Circular Economy (PWC, n.d.-a).

## R-Strategies

In this section, the R-Strategies in circular economy will be explained. According to Malooly and Tian (2023), these strategies serve as a guide on how circular design and manufacturing processes can prevent waste from entering the environment and keep resources in use.

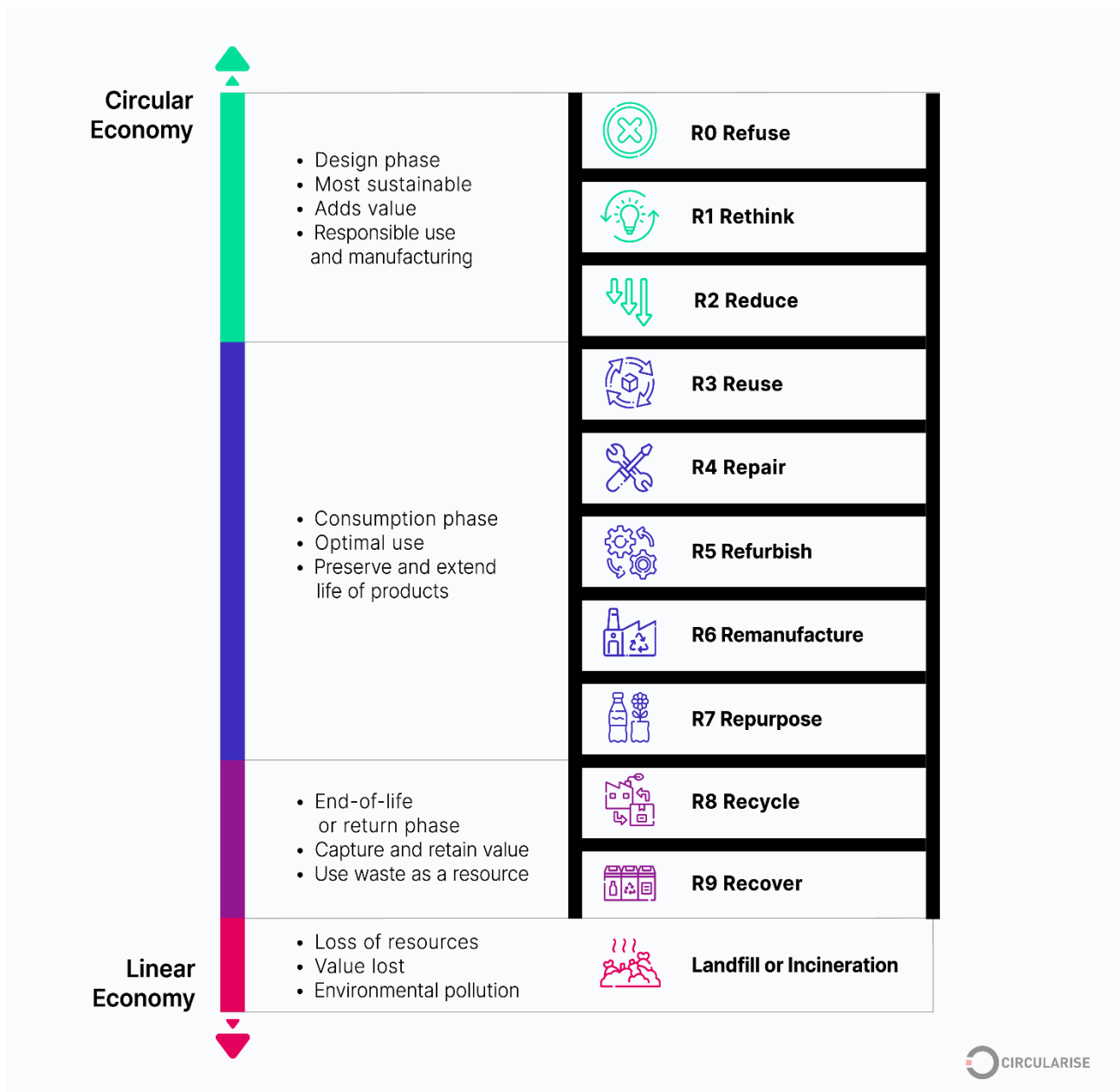


Figure 11. R-Strategies (Malooly & Tian, 2023).

Braungart et al. (2008) distinguish between “cradle-to-grave” and “cradle-to-cradle” flows of materials when comparing linear and cyclical approaches to product and system development. The 10 strategies can be grouped into three groups based on the length of the waste loop they represent. The shorter the loop, the more viable the technique. The waste loop becomes tighter as they move up the ladder. This means that the technique uses fewer materials and is thus more circular. Smaller numbers signify the start of the value chain, whereas bigger ones denote the finish.

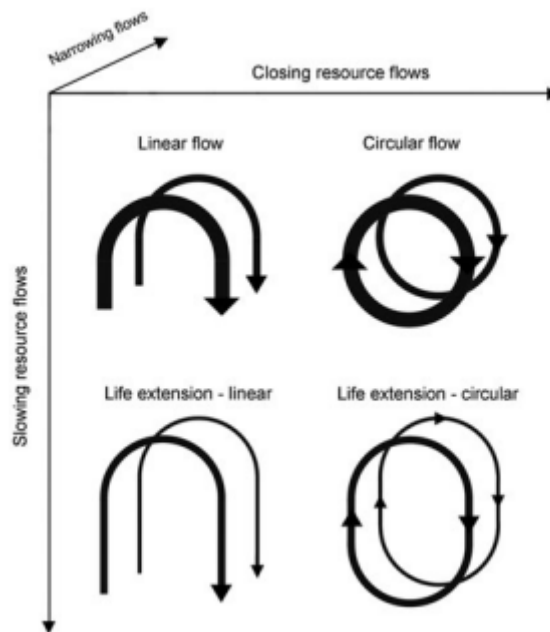


Figure 12. Categorization of Linear and Circular Approaches (Bocken et al., 2016).

The terms narrowing, slowing and closing resource loops are introduced in this section. In order to differentiate CBM from LBM, the work of McDonough and Braungart (2002) is expanded in the figure below by classifying the strategies based on the ways in which the resources move through a system.

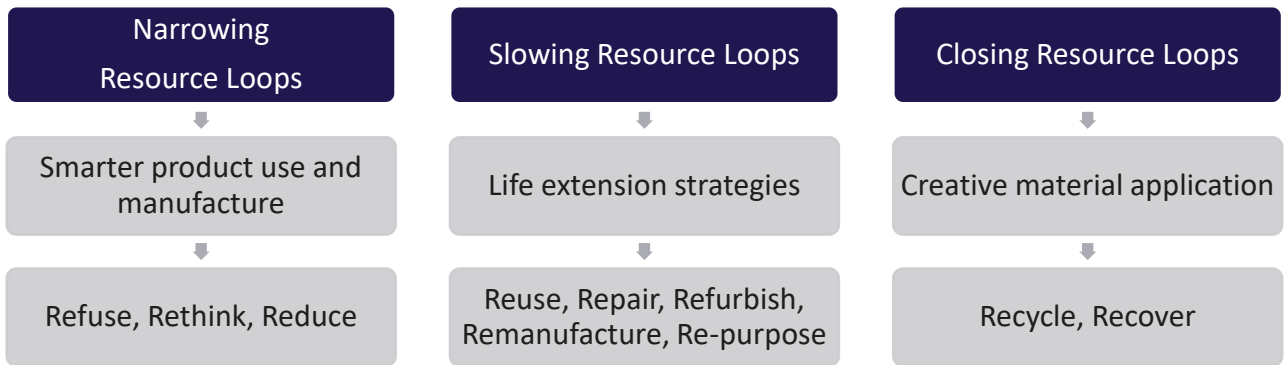


Figure 13. Classification of the strategies under three categories.

For better understanding, each R-strategy is presented in the table below with an application example of a “Smartphone”, an item we use in our daily life.

Table 4. R- Strategy Representation Using Example of a Smartphone

R0 Refuse	There is no need to upgrade the smartphone frequently. The device can be used until it no longer meets the needs or is obsolete.
R1 Rethink	Choose a smartphone model that is known for its durability. Try opting for brands that offer long-term software support.
R2 Reduce	To extend the device’s life and minimize strain, reduce the number of apps that drain and consume the phone’s resources.
R3 Reuse	Reuse an old smartphone as a dedicated GPS device, music player or a secondary screen.
R4 Repair	Repair the phone instead of replacing the entire device.
R5 Refurbish	An old smartphone can be refurbished by updating its software and replacing worn-out components.
R6 Remanufacture	An old smartphone can be sent to a facility where it can be disassembled, and the parts can be used to remanufacture new devices.

R7 Repurpose	Turn the smartphone into a portable storage device.
R8 Recycle	Recycle old smartphones through electronic recycling programs to recover valuable materials.
R9 Recover	Ensure that in the recycling process, materials like metals, glass and plastics are recovered for reuse in new products.

Mast et al. (2022) emphasized that R-strategies are not universal methods to problem solving. Companies must still adopt a strategy that aligns with the goals and work out a customized business idea from this approach to generate creative circular business models.

### **Circular Business Model**

As mentioned in the previous section, CE is an alternative economic model to the linear economy. Business models shape the way a business operates and play a significant role in driving innovation (Magretta, 2022). The transition from LBM to CE requires a change of present business models and practices. Hopkinson et al. (2018) observes that adopting circular business models may increase revenue, resource productivity, and a competitive edge for businesses. Adapting a CBM requires companies to confront difficult concerns, including fast technical developments and market instability.

According to company research by Accenture (2015), the circular economy includes five business models: Circular supply chain, Sharing Platform, Product as a service, Product life-extension, and Resource recovery.

Product or service production involves seven stages: sourcing, manufacturing, logistics, marketing and sales, product usage, end-of-life disposal, and reverse logistics. The figure below depicts how the circular economy's five business models are used at each level of product realization.

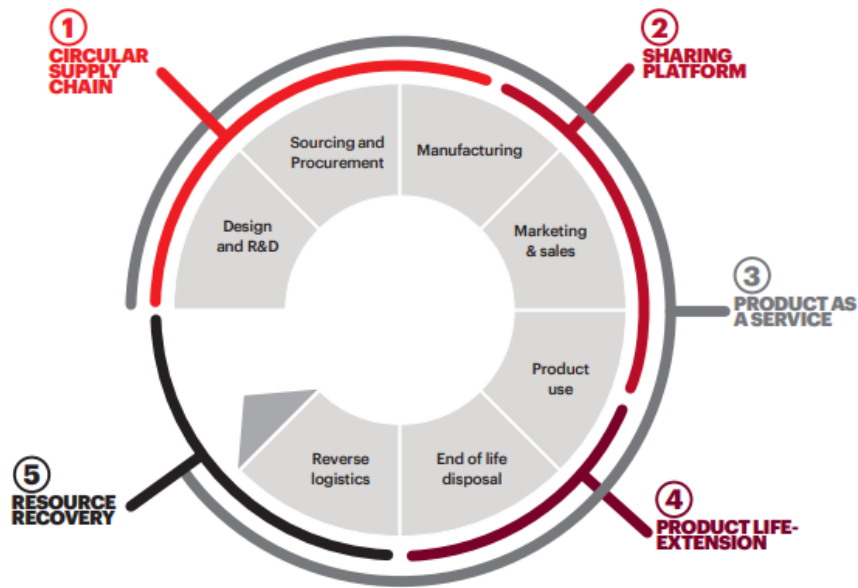


Figure 14. The Circular Economy Business Models (Accenture, 2015).

This section explores various business model concepts for a circular economy. The table below presents examples of business models suitable for the circular economy. Each model is defined and accompanied by an existing company or business practice as an example. The table highlights the core circular economy principles and demonstrates how these companies apply them to promote sustainability.

Table 5. Examples of Business Models in Circular Economy.

<b>Model</b>	<b>Definition</b>	<b>Example</b>
Circular Supply Chain	Utilizes renewable, recycled, or biodegradable materials in the production process to reduce environmental impact.	<b>Ecover</b> uses biodegradable and renewable ingredients for its cleaning products to minimize environmental footprint.
Sharing Platforms	Enables the shared use of products, thereby maximizing resource efficiency by reducing demand for new goods.	<b>Airbnb</b> facilitates shared usage of homes, reducing the need for constructing new accommodations.
Product as a Service (PaaS)	Companies retain ownership of their products and provide services such as leasing, maintenance, or repairs. Customers pay for the service rather than owning the product.	<b>Philips Lighting</b> offers "pay-per-lux" where customers pay for light usage instead of buying lighting fixtures.
Product Life Extension	Prolongs the life of products through repair, maintenance, or upgrading, reducing the need for new products.	<b>iFixit</b> provides tools and manuals for repairing electronics, allowing consumers to extend product lifespans.
Resource Recovery	Captures and repurposes materials or energy that would otherwise be wasted in production processes.	<b>Veolia</b> focuses on waste management and converting waste into resources like energy, water, and raw materials.

## Circular Economy in Business Development

The need to address resource scarcity, environmental degradation, and economic sustainability has led to a substantial global uptake of the circular economy. In this section, the global trends and adoption of CE principles will be discussed and key initiatives and policies that are shaping this movement will be highlighted.

The European Union has led this movement by implementing the Circular Economy Action Plan (CEAP) in March 2020, which aims to promote sustainable growth and reduce

environmental impact. Key initiatives under this plan include promoting eco-design, encouraging the use of secondary raw materials, and revising laws on waste management (European Commission, n.d.-b).

Leading the way in incorporating CE into its national development plan is China. The groundwork for a sustainable industrial system was established by the 2009 Circular Economy Promotion Law. This regulation promotes the adoption of environmentally friendly corporate practices, such as eco-industrial parks, cleaner manufacturing methods, and resource recycling. According to Chen (2023), China unveiled a new development plan for the country's circular economy on July 7, 2021. It is a part of the 14th Five-Year Plan, which covers the period of 2021–2025. Chen (2023) states that the plan encompasses several initiatives, such as promoting recycling, remanufacturing, renewable resources, and green product design.

## **Benefits**

Circular Economy offers numerous benefits for international businesses, making it a compelling strategy for sustainable business development. The benefits of adopting circular economy principles can be summarized in the three following categories. Economic advantages, environmental benefits, and social impacts.

### **Economic advantages**

**Cost savings:** Business can drastically reduce operating costs by recycling and reusing resources.

**Revenue Generation:** New business models such as product-as-a-service (PAAS) and remanufacturing can create additional revenue streams.

**Market Differentiation:** Companies adopting CE principles will be able to differentiate themselves in the market, making them more appealing to environmentally conscious consumers and investors.

## **Environmental Benefits**

**Resource Efficiency:** By minimizing negative impacts on the environment and preserving natural resources, CE practices encourage resource efficiency.

**Waste Reduction:** By designing out waste and promoting recycling, businesses can help to lower landfill usage and pollution levels in the environment.

**Lower Carbon Footprint:** Companies are better able to achieve sustainability goals and comply with environmental regulations when they implement CE initiatives, which often lead to reduced greenhouse gas emissions.

## **Social Impact**

**Job Creation:** The transition to a circular economy may open up new opportunities in areas such as recycling, manufacturing, and sustainable design.

**Community Engagement:** Companies may improve their CSR profiles by interacting with their local communities through sustainability initiatives.

By implementing CE principles, businesses can build more robust supply chains, reduce dependency on raw materials, and expand into new markets through the development of innovative products and services.

## **Challenges**

Implementing the circular economy model also presents several challenges that businesses need to pay attention to and address in order to succeed. Here are some of the key hurdles:

### **High Costs**

Moving from traditional practices to a circular economy often requires significant initial investment. Companies need to redesign their products and processes, which can be expensive. For smaller businesses, this cost may be hard to manage. In addition, new

infrastructure like recycling plants or systems to take back used products can add further financial strain.

### **Complex Supply Chains**

Circular models rely on reusing and recycling materials, which can make supply chains more complicated. Businesses need to track materials throughout their lifecycle, from production to reuse or recycling, which requires more coordination and new processes.

### **Lack of Consumer Awareness**

Many consumers are not familiar with circular economy concepts or may not see the benefit of buying sustainable products. Without strong demand, companies may hesitate to fully adopt these practices. Changing long-held consumer habits, such as frequently buying new products, can also be a challenge.

### **Gaps in Policy**

Some countries lack clear regulations or incentives to encourage the shift to a circular economy. Without government support, it can be harder for companies to make this transition. Additionally, the absence of global standards can create inconsistencies across regions.

### **Design and Technical Challenges**

Creating products for a circular economy requires designing them to last longer, be repaired, or easily recycled. Not all companies have the expertise to make this change. Additionally, not all materials can be reused or recycled in a sustainable way.

## 5 METHODOLOGY

### 5.1 Research Approach

To explore how Finnish companies can successfully enter and operate in the Singaporean market while adhering to sustainability and circular economy principles, this research employs a mixed method approach which consists of a combination of both primary and secondary data to explore the sustainability landscape in Singapore and understand how it intersects with Finnish business practices. The research design is structured around three core methods: (1) an analysis of Singapore's sustainability landscape and initiatives, (2) qualitative interviews with representatives from Singaporean companies, and (3) a quantitative survey distributed to both Finnish and Singaporean consumers.

### 5.2 Data Collection Methods

**PEST Analysis:** The PEST analysis will serve as a tool to assess the impact of external factors on Finnish companies looking to expand into Singapore. Additionally, an exploration of Singapore's sustainability landscape, focusing on key initiatives and regulations aimed at promoting circular economy practices, as well as the country's commitment to sustainable development will be integrated with this analysis. This provides a background understanding of Singapore's sustainability approach to better interpret findings from the interviews and survey.

**Interviews:** Semi-structured interviews will be conducted with representatives from Finnish companies with a presence in Singapore from various sectors, particularly those with a focus on sustainability practices. The interviews will be guided by a set of predefined questions while allowing for flexibility to probe deeper into specific topics that arise during the conversation.

**Survey:** A structured survey will be distributed and the target respondents for this survey are consumers from Singapore and Finland. This approach makes it possible to compare the attitudes and preferences between the two groups and get a broad view of how cultural and regional differences may affect the acceptance of sustainable business practices. The

survey aimed to explore consumer preferences and the potential market for sustainable products and services in Singapore, with comparative insights drawn from the Finnish market.

The goal of the survey is to gather general perceptions, attitudes and behaviors among Singaporean and Finnish consumers and is designed in a way that it covers different aspects of consumer behaviour and perception towards sustainability. It involves questions like general knowledge on sustainability, perceived importance of sustainability while making purchasing decisions, and specific preferences on sustainability of products and services. Furthermore, the survey also aims to find out more about potential barriers, such as concerns about quality or price including perceived quality or cost of a sustainable product, that may hinder consumers from making purchase.

### **5.3 Data Analysis**

#### **PEST Analysis**

For the PEST analysis, each factor will be analyzed to provide a clearer understanding of the opportunities and risks in Singapore. This method will allow the study to identify external forces that may influence the integration of circular economy principles by Finnish companies entering the market.

#### **Qualitative Data Analysis**

Thematic Analysis will be used to analyze data obtained from the interviews. Dawadi (2020) defines thematic analysis as a qualitative research strategy for organizing and analyzing complicated data sets. There are 6 steps in the process of thematic analysis and will be used to identify recurring themes, patterns and insights. Themes related to sustainability, market entry strategies and the circular economy will be identified.



Figure 15. Thematic Analysis Process (adapted from Villegas, n.d.).

## Quantitative Data Analysis

The data collected from the survey will be analyzed both quantitatively and qualitatively. Descriptive statistics will be used to analyze the close-ended questions from the survey. Descriptive statistics involves calculating measures such as mean, median, mode, frequency distributions and percentages. This method is well-suited to provide simple summaries of the data. For open-ended questions, content analysis will be used to identify common themes and insights.

### 5.4 Ethical Considerations

This research will follow stringent ethical guidelines to preserve the integrity and confidentiality of the data obtained. Participants in the study will be informed about the research's goal, and their consent will be sought prior to data collection. The data will be anonymized to ensure confidentiality.

## 6 PEST ANALYSIS OF SINGAPORE

Kenton (2024) defines PEST analysis as a management technique to evaluate the political, economic, social and technological factors that could impact a business. To provide a comprehensive understanding of the external and internal factors that Finnish companies should consider when entering the Singaporean market, a PEST analysis of Singapore is presented in this section.

### 6.1 Political Factors

Singapore is a republic and follows a parliamentary democracy system whereby the President is the head of state, and the Prime Minister is the head of government. The President is Tharman Shanmugaratnam, and the Prime Minister is Lawrence Wong. Singapore is among Southeast Asia's most stable countries and the 5<sup>th</sup> least corrupted country in the world (Corrupt Practices Investigation Bureau, 2024). This stability is essential for any foreign companies looking to expand into the market. Singapore also belongs to several esteemed organizations such as the IMF, the World Bank, ASEAN, APEC, the UN, the Commonwealth.

### 6.2 Economic Factors

Singapore's strategic location in Southeast Asia positions it as a major logistics and trade hub. As one of the four highly developed Asian economies with highly educated and productive labour forces, Singapore is known as the one of the four Asian Tigers alongside Hong Kong, South Korea, and Taiwan.

Singapore has experienced exponential growth in the recent years. According to Trading Economics (2023), its GDP is projected at \$490 billion in 2025. A flat rate of 17% is applied to corporate tax and individual tax rate is between 0% to 24% (PWC, 2023b). Given the low taxes and other incentives, many analysts view Singapore as a tax haven for foreign investors. In terms of purchasing power, Singapore ranks third globally in terms of living standards. This means that there is purchasing power for premium and sustainable products.

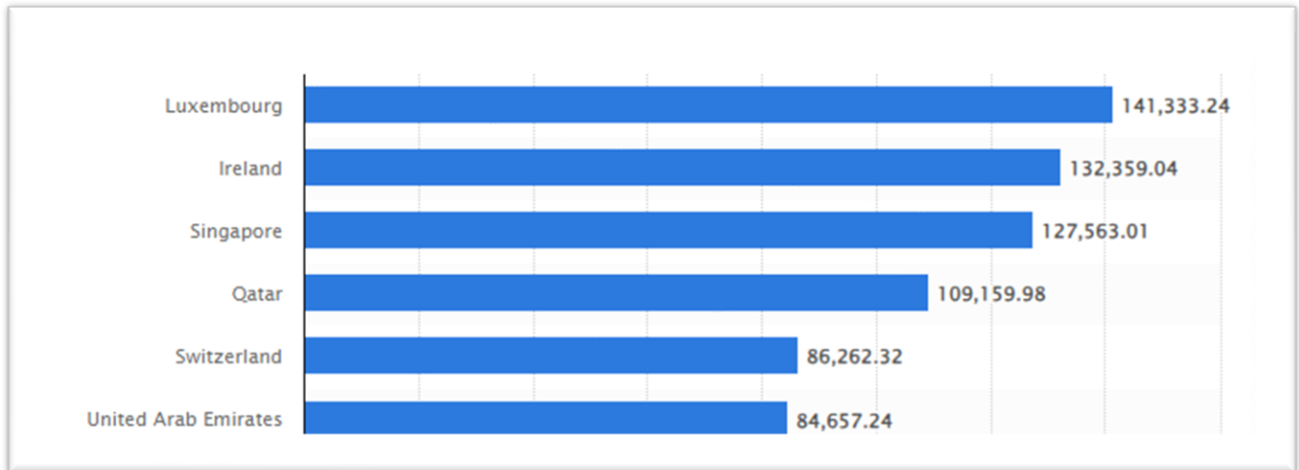


Figure 16. Countries with the largest GDP per capita at purchasing power parity in 2022 (Statista 2022a).

It is important to note that while Singapore is an attractive market, it also has high costs related to labour, rent, and utilities. Finnish companies will need to factor these costs into their market entry strategies.

### 6.3 Social Factors

Koh (2024) states that there is growing awareness among Singaporean consumers about sustainability and 4 out of 5 consumers are concerned about the environment. This is evident that there are opportunities for Finnish companies in Singapore offering eco-friendly products and services. However, cultural differences play a significant role in shaping business practices and consumer behaviour. Finnish companies need to adapt to the local culture when expanding into Singapore. In the figure below, a comparison using Hofstede's culture dimensions is presented.

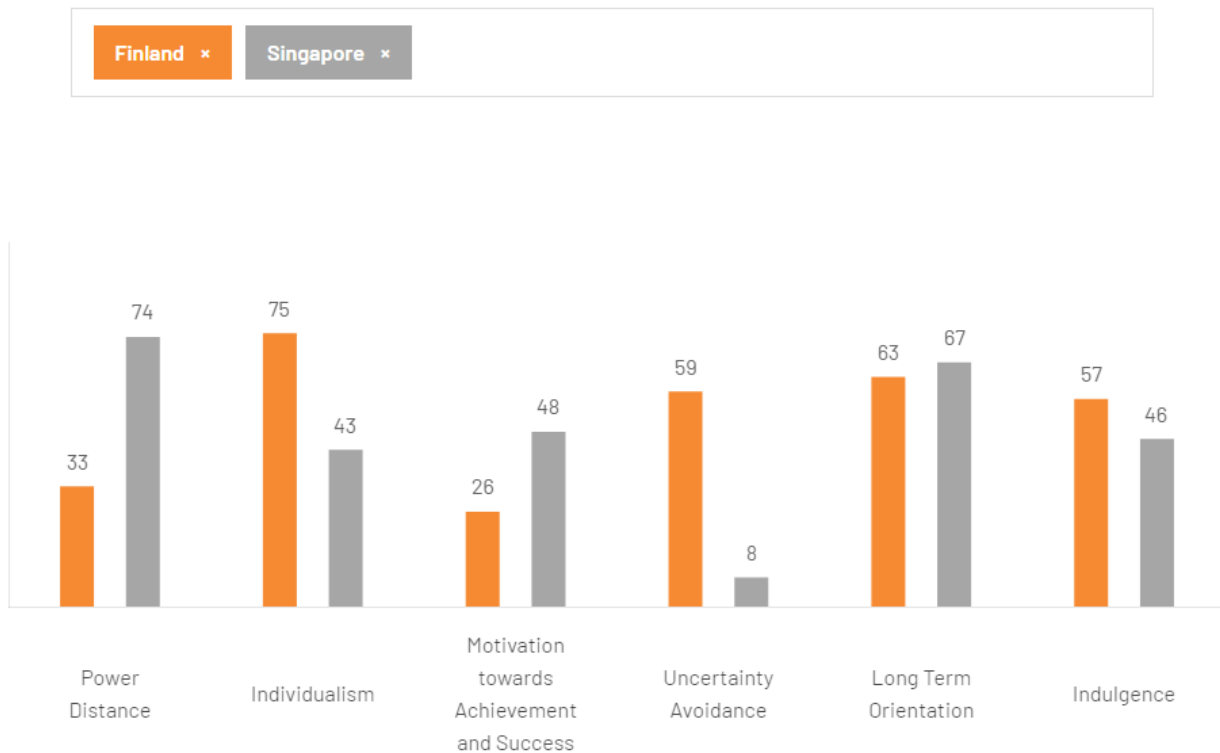


Figure 17. Hofstede Comparison (The Culture Factor Group, 2024).

Singapore scores significantly higher on Power Distance (PDI), meaning hierarchical structures are less rigid compared to Finland's egalitarian society. This implies that Finnish companies, accustomed to non-hierarchical and nearly flat organizational models, will need to adjust to the formally hierarchical business environment in Singapore. In a corporate setting, this requires more formal decision-making and respect for authority.

Additionally, the gap in Individualism (IDV) between the two countries is substantial. Finland prioritizes individual choice and autonomy, while Singapore focuses on collectivism and group cohesion. Consequently, Finnish companies will need to emphasize building relationships and collaborating with local firms while developing marketing strategies that resonate with Singapore's community-centered lifestyle.

With regards to Masculinity (MAS), Singapore has a competitive and achievement-driven society, quite different from Finland's focus on a balanced work-leisure lifestyle. Finnish companies need to emphasize how their sustainability efforts contribute to success, particularly in Singapore's highly competitive business environment.

Singapore's low uncertainty avoidance (UAI) can benefit Finnish companies as the Singaporean market may be more open to testing new concepts. Finnish companies should clearly communicate the benefits and practicality of adopting circular economy model and how these new models are low-risk and comply with current regulations.

Finally, both countries share a Long-term Orientation (LTO), presenting a major opportunity. Finnish companies can align their sustainability initiatives with Singapore's long-term planning and government policies, promoting the future benefits of adopting sustainable and circular economy practices.

#### 6.4 Technological Factors

As one of the world's most technologically advanced countries, Singapore is known for its cutting-edge technological infrastructure, which supports business innovation. According to EDB Singapore (2023), 80 of the top 100 technology companies in the world have a presence in Singapore. The Singaporean government provides significant support for research, development, and technological innovation, especially in areas related to sustainability and the circular economy. The internet also plays an important role. According to Statista (2024b), Singapore boasts one of the world's fastest Internet speeds.

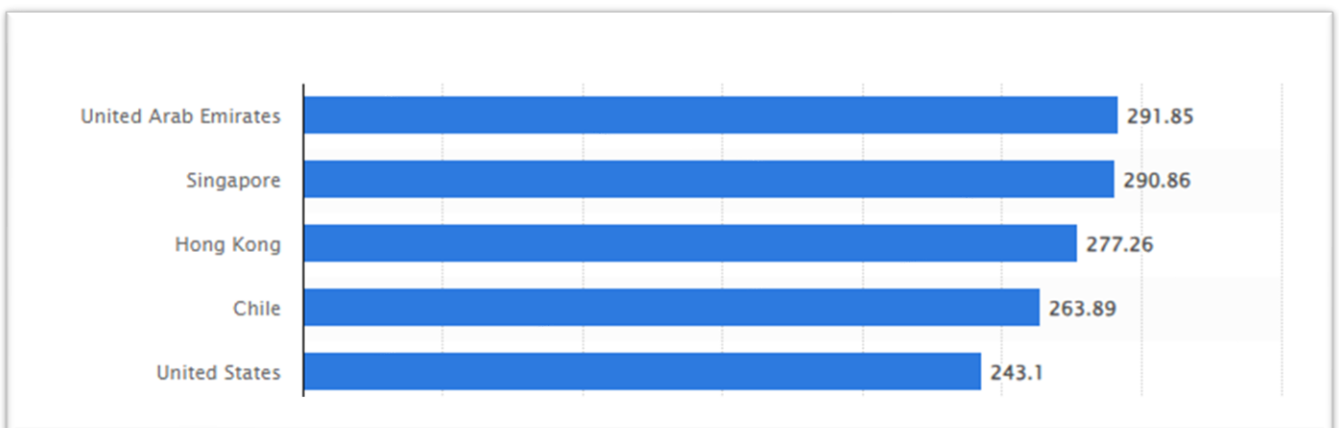


Figure 18. Countries with the fastest average fixed broadband internet speeds worldwide as of July 2024 (Statista, 2024b).

## 7 SUSTAINABILITY LANDSCAPE IN SINGAPORE

Renowned for its rapid urbanization and economic growth, Singapore has made sustainability a central tenet of its national policy. This section examines Singapore's sustainability landscape with an emphasis on government initiatives, business practices, support and grants. Comprehending these variables offers crucial perspectives for Finnish companies considering expansion in Singapore, enabling them to align their strategies with local sustainability norms and standards.

### 7.1 Government Initiatives

The government of Singapore has taken the lead in advancing sustainability through several programs and policies.

#### **Singapore Green Plan 2030**

One of the important frameworks is the Singapore Green Plan 2030, which is divided into these five pillars (Singapore Green Plan, 2024):

- City in Nature
- Sustainable Living
- Energy Reset
- Green Economy
- Resilient Future

It sets high goals for each of these areas. By 2030, this plan seeks to make Singapore a resilient and sustainable city-state, with a particular emphasis on increasing green space, lowering carbon emissions, and encouraging sustainable urban living. The following table summarizes the main goals of each focus area with real-life examples. This breakdown offers a clear and relatable view of how Singapore is working to create a greener and more sustainable society.

Table 6. Singapore Green Plan

Focus Area	Main Goal	Examples
City in Nature	Increase green spaces and integrate nature with urban areas	More parks, nature reserves, tree planting
Sustainable Living	Minimize waste and increase recycling efforts	Reduce single-use plastics
Energy Reset	Reduce pollution by cutting carbon emissions	Use of solar power and energy efficient buildings
Green Economy	Promote green businesses and job creation	Support for green technology and sustainable products
Resilient Future	Ensure enough clean water and local food production	NEWater, more local farms and fisheries

### Zero Waste Masterplan

The Zero Waste Masterplan is another noteworthy initiative that aims to increase the nation's overall recycling rate to 70 percent and reduce waste-to-landfill per capita per day by 30 percent by 2023 (National Environmental Agency, 2021). This ambitious goal is part of a broader strategy to enhance resource efficiency and promote sustainable waste management practices.

Singapore is a country with limited land area. By 2035, Singapore's only landfill-- Semakau Landfill is projected to reach its capacity. According to an article by Oh (2019), to ensure progress towards this long-term objective of waste reduction, interim targets have been established under the Singapore Green Plan 2030, with a milestone to achieve a 20 percent reduction in waste-to-landfill per capita per day by 2026. Oh (2019) adds that these efforts are designed to extend the operational lifespan of Semakau Landfill beyond 2035, thereby mitigating the environmental impact of waste disposal and supporting the city-state's overall sustainability agenda. The implementation of these targets underscores Singapore's commitment to fostering a circular economy and the importance of strategic planning in achieving sustainable development goals.

## Creating a Circular Economy in Singapore with Zero Waste

The figure below shows the circular economy approach to waste and resource management under Singapore's Zero Waste Masterplan.

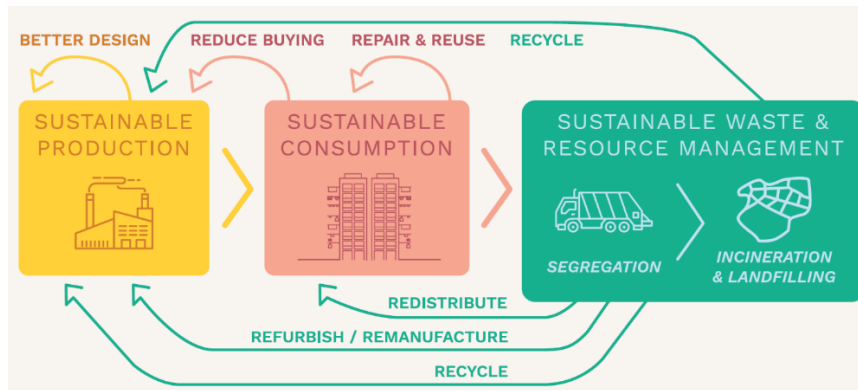


Figure 19. Circular Economy Approach (Centre for Liveable Cities Singapore, 2020).

In Singapore, efforts to address food waste have gained momentum across various sectors. Many shopping malls and food centres now actively separate their food waste and use on-site treatment systems to transform it into valuable resources like liquid nutrients or compost, which are then used for landscaping or non-potable water purposes. This approach is not limited to commercial spaces; similar initiatives are being implemented in residential areas as well. For instance, a pilot project in the public housing estate of Tampines GreenLace has shown promising results, with about one-third of households participating in food waste recycling at least once a week.

Beyond on-site treatment, specific types of food waste, such as spent grains and soya bean waste, are being repurposed as animal feed, contributing to Singapore's ambitious goal of producing 30% of its nutritional needs locally by 2030. For food waste that cannot be recycled or treated, it is sent to Waste-to-Energy plants, where it is converted into energy, further minimizing the environmental impact.



Picture 1. Residents depositing food waste into recycling bin (Centre for Liveable Cities Singapore, 2020).

The Singapore Packaging Agreement, launched in 2007, aims to reduce waste by encouraging the redesign of manufacturing processes and product packaging, alongside supply chain improvements and consumer education efforts. This voluntary partnership between the government and industry is part of a broader range of initiatives led by the National Environment Agency (NEA) to cut down on packaging waste. In addition to this agreement, the NEA collaborates with businesses, grassroots organizations, and NGOs to promote the use of reusable bags for shopping and marketing among Singaporeans. Furthermore, the NEA is piloting the use of Mechanical Biological Treatment systems to convert plastics into solid recovered fuel, further advancing the nation's waste reduction efforts.

To facilitate the recycling of electronic wastes, the RENEW project was launched in 2012 through a partnership between the National Environment Agency (NEA) and companies such as Starhub, DHL and TES-AMM. The initiative has installed more than 450 e-waste bins. tanks in over 400 locations across Singapore as of March 2019. As a result of this effort, NEA is set to implement an expanded producer responsibility framework in 2021, which requires producers to accept responsibility on financial or physical means for end-of-life product management. This framework applies to various types of e-waste and plastic waste, including IT equipment, large electrical and electronic equipment, batteries, lamps, and solar panels.



Picture 2. RENEW e-waste collection in store (Lim, 2020).

In addition to regulatory measures, Singapore has also developed innovative recycling systems to efficiently manage waste streams. A notable pilot project involves digesting food scraps with sludge from wastewater treatment plants. This is a process that has been shown to produce more biogas than sludge treatment alone. This successful approach has led to the construction of a new facility at Tuas Nexus, which will be connected to the Tuas Water Reclamation Plant with an integrated waste management system designed to optimize access. which aims to reduce carbon emissions by more than 200,000 tons per year.

Another example of circular economy practices in Singapore is found at Gardens by the Bay, a popular tourist attraction. The Gardens recycle approximately 70% of their horticultural waste by processing tree branches and plant trimmings in an on-site biomass power plant. The energy generated from this process is used to power the chillers that cool the Gardens' Flower Dome and Cloud Forest conservatories, demonstrating a practical application of circular economy principles in managing waste and conserving energy.

The examples above illustrate Singapore's commitment to establishing a circular economy by adopting sustainable practices in production, waste management, and consumption.

These initiatives reflect a strategic approach to creating a more sustainable and resource-efficient economy, underscoring Singapore's dedication to circular economy principles.

## **7.2 Business Practices**

Businesses in Singapore are gradually incorporating sustainability into their operations. The Singapore Exchange (SGX) requires all listed businesses to report on their environmental, social, and governance (ESG) activities (SGX Group, 2022). This approach aims to increase corporate transparency and responsibility, therefore pushing businesses to adopt more sustainable practices.

Several sectors have made substantial advances toward sustainability. The real estate industry, for example, has adopted green construction standards, with the construction and Construction Authority (BCA) pushing the Green Mark Scheme (BCA, 2023). This initiative encourages developers to design and build structures that satisfy energy efficiency and environmental sustainability standards.

The financial industry is also actively involved in promoting sustainability through green financing programs. Singapore intends to establish itself as a worldwide green finance powerhouse, with the Monetary Authority of Singapore (MAS) announcing the Green Finance Action Plan (MAS, 2024). This strategy promotes green bond issuance, sustainable investment, and green finance capacity building.

### **Packing Initiatives**

Paulo and Peh (2018) states in their article that 2640 plastic bags are being thrown away every 3 seconds in Singapore. Another study revealed that from supermarkets alone, Singaporean consumers take 820 million plastic bags from their grocery shopping even though 60% of them have more than 20 extra plastic bags at their homes (Wycech, 2019). To tackle this issue, The "BYOB" campaign was started in hopes of encouraging consumers to make the sustainable choice of using reusable bags instead of single-use ones.

## Product as a Service

Car-sharing services and co-working spaces are revolutionising how people in Singapore can access cars and office space without having to commit to ownership.

In Singapore, car ownership is costly due to stringent vehicle ownership laws. According to Siah (2024), the certificate of entitlement of car ownership could reach a high of \$150,000 to \$158,000. Car-sharing services have grown in popularity as a practical and affordable substitute for owning a car. Some of the popular car sharing services are Blue Sg, Shariot and Carlite.

Businesses and individuals can pay a monthly fee to access desks, meeting rooms and other facilities instead of signing a traditional office lease. This reduces the need for companies to set up individual offices. The figure below shows the different options of co-working spaces available at Wework Singapore.

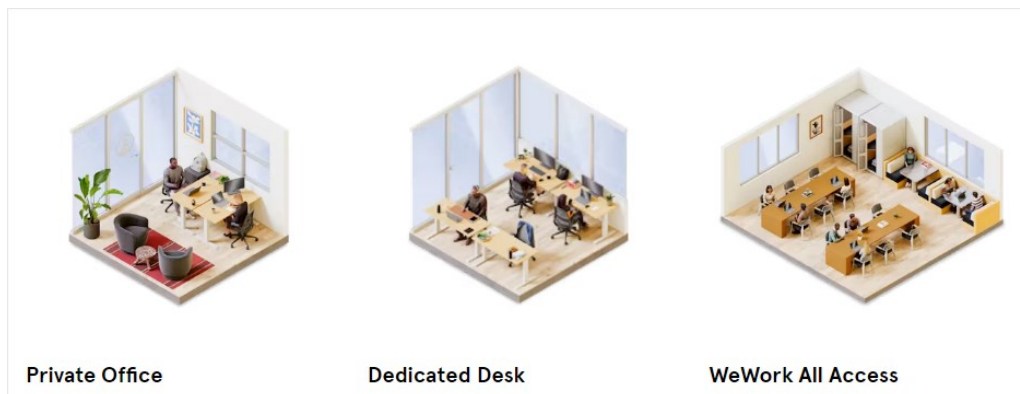


Figure 20. Workspace Options at Wework Singapore (Wework, n.d.).

Both of these services align with Singapore's goal of becoming a greener and smarter city by promoting more efficient and sustainable resource usage.

### 7.3 Incentives and Support Systems

Enterprise Singapore (ESG) is a government organization that promotes company growth. ESG promotes Singapore's expansion as a worldwide trading and startup hub, with the goal of increasing confidence in the country's products and services. Understanding and using ESG's grants and assistance programs might be critical for Finnish companies seeking to grow into Singapore.

#### **Enterprise Development Grant (EDG)**

**Objective:** The EDG aims to help Singapore-based companies grow and transform. It supports projects that help businesses upgrade, innovate, and venture overseas.

#### **Focus Areas:**

1. **Core Capabilities:** Strengthening business foundations in areas such as business strategy, human capital development, and financial management.
2. **Innovation and Productivity:** Encouraging the development of innovative products and processes and improving productivity.
3. **Market Access:** Assisting companies in expanding into overseas markets.

#### **Productivity Solutions Grant (PSG)**

**Objective:** The PSG supports companies keen on adopting IT solutions and equipment to enhance business processes.

**Focus Areas:** Pre-scoped solutions including customer management, data analytics, financial management, inventory tracking, and more.

**Impact for Finnish Companies:** Finnish companies that plan to implement advanced technological solutions in their Singapore operations can benefit from the PSG. The grant can cover up to 80% of the cost of pre-approved solutions, making it easier and more cost-effective to adopt productivity-enhancing technologies.

## **Market Readiness Assistance (MRA) Grant**

**Objective:** The MRA grant supports Singaporean SMEs in taking their business overseas by covering some of the costs associated with market entry.

**Focus Areas:** Overseas market set-up, identification of business partners, and overseas market promotion.

**Impact for Finnish Companies:** While primarily aimed at Singaporean SMEs, Finnish companies can benefit indirectly by forming partnerships with local SMEs who are recipients of this grant. This can facilitate joint ventures and collaborations that support market entry and expansion.

## **Global Innovation Alliance (GIA)**

**Objective:** The GIA is designed to catalyze cross-border collaborations between Singapore and major innovation hubs globally.

**Focus Areas:** Establishing innovation launchpads, facilitating two-way innovation flows, and expanding international networks.

**Impact for Finnish Companies:** Finnish companies can engage with the GIA to access Singapore's innovation ecosystem, connect with local startups and enterprises, and participate in co-innovation projects. This can accelerate their integration into the Singaporean market and enhance their innovation capabilities.

## 8 EMPIRICAL FINDINGS AND ANALYSIS

The interviews were conducted via Microsoft Teams due to the distance between Finland and Singapore, as well as the time difference. The interviews lasted approximately 30 minutes and was conducted in English.

To maintain anonymity, the companies shall be referred to as “Company A, Company B” as the research aims to explore perspectives rather than particular opinions of the specific companies involved. The sustainability strategies and brief description of the companies are still included to provide context for the study.

Table 7. Interviewees of the study

<b>Company</b>	<b>Sustainability strategy</b>
Company A	Waste Reduction
Company B	Resource Efficiency

**Company A** is an urban farming company that grows leafy greens in controlled indoor environments. They emphasize sustainability by reducing water usage, sourcing locally, and minimizing carbon footprints with zero-waste farming techniques.

**Company B** is a sustainable fashion brand based in Singapore. The company’s main focus is on producing eco-friendly clothing made from sustainable materials like organic cotton and Tencel. Their aim is to reduce the environmental impact of fashion production by using sustainable materials and encouraging conscious consumerism.

### 8.1 Insights from Interviews and Analysis

The responses from both companies gave valuable insights into how sustainability is integrated into business operations in Singapore. After reviewing the interviews and noting key points, the notes were coded to identify repeating topics or patterns. The coding identified the following themes:

- Sustainability as a Core Strategy
- Circular Economy Practices
- Opportunities in the Singaporean Market
- Challenges in Implementing Sustainability
- Partnerships

### **Importance of Sustainability**

Sustainability is not just a regulatory requirement or a consumer demand but a core strategic advantage. Both companies demonstrate that companies that embed sustainability into their operations can achieve greater consumer loyalty and trust, particularly in sectors such as agriculture and personal care where environmental concerns are paramount.

### **Market Demand and Consumer Behaviour**

There is a noticeable shift in consumer preferences towards sustainable products in Singapore. It was observed that local consumers are increasingly making choices based on environmental values. There is also a demand for innovative and unique products, which opens more opportunities for Finnish companies.

Consumer behaviour in relation to sustainable products was a topic that was touched on. The interviews revealed mixed perceptions of Singaporean consumer behaviour concerning sustainability. One company observed a growing preference for sustainable products, particularly among younger consumers who are more environmentally conscious. Another company reported increased sales of their sustainable product lines, driven by effective marketing campaigns.

However, one company said that the problem of price sensitivity is still crucial particularly in mid-price segment. Although consumers show a willingness to be more environmentally conscious, they are not willing to spend more for the product. Hence, this observation calls

for greater efforts in ensuring sustainable products are affordable in the market to penetrate the market more effectively.

### **Implementing Circular Economy Principles**

The concept of the circular economy was a key theme in the discussions. Both companies mentioned that adopting circular economy principles is a long-term advantage. The aspects identified were waste reduction and resource efficiency. The companies faced some challenges when implementing these practices. High upfront costs were mentioned by one company, stating that the initial investments are costly but will pay off in the long run. Consumer perception was also mentioned, stating that most people have the perception that sustainable products and services are expensive. When implementing sustainability practices, companies should anticipate challenges like high costs and the need for consumer education.

### **Partnerships**

Both companies have engaged in strategic partnerships to enhance their sustainability efforts. This includes collaborations with other local companies to improve resource efficiency as well as partnering with NGOs and packaging suppliers. These collaborations have enabled the companies to access innovative solutions and improve their sustainability credentials.

### **Future Outlook and Recommendations**

Looking forward, the companies interviewed were hopeful of the future of sustainability and circular economy activities in Singapore. The companies assert that with increasing consumer consciousness and the development of various technologies the element of sustainable management will be more mainstream.

They recommended that foreign companies willing to venture into the Singaporean market should prioritize sustainability integration from the market entry, coupled with the need to look for partnership for a better understanding of the regulatory environment. The challenges indicated were in areas of cost and consumers' behaviour, these can be well managed through integration of strategies such as new inventions and awareness creation. They

stressed on the importance of flexibility and proactivity as well as the necessity to track changes in the legislation and consumers' preferences.

## **8.2 Survey Findings and Analysis**

An online survey questionnaire was carried out during August 2024, concluding in September 2024. The survey was conducted using social networks, university networks, and relevant community forums.

The survey gathered 91 responses from a diverse sample of Singaporean and Finnish consumers. It is necessary to note that the sample size does not fully represent the opinions and behaviours of the entire population but can be considered sufficient to capture a range of perspectives without incurring additional time and resources.

### **Challenges Encountered**

During the data collection process, one significant challenge that surfaced was the hesitation from respondents to click on the survey link. Many people were concerned about online scams, which have become increasingly common. This has led to a natural wariness when it comes to unfamiliar links. Despite clearly stating that the survey was for academic research, some potential participants still expressed doubts about the legitimacy of the link, which ultimately affected their willingness to engage.

Q2 What is your age range?

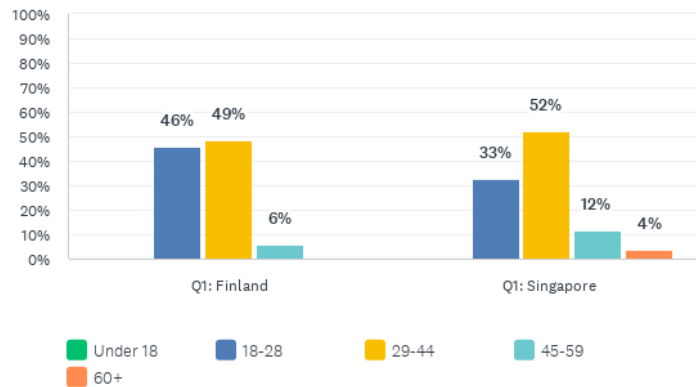


Figure 21. Age Distribution.

The data from the figure above shows the age demographics in both countries. In both cases, a high percentage of respondents fall in the 18-28 and 29-44 age groups. This indicates that the results of the survey represent younger to middle-aged adults.

Q3 How familiar are you with the concept of the circular economy?

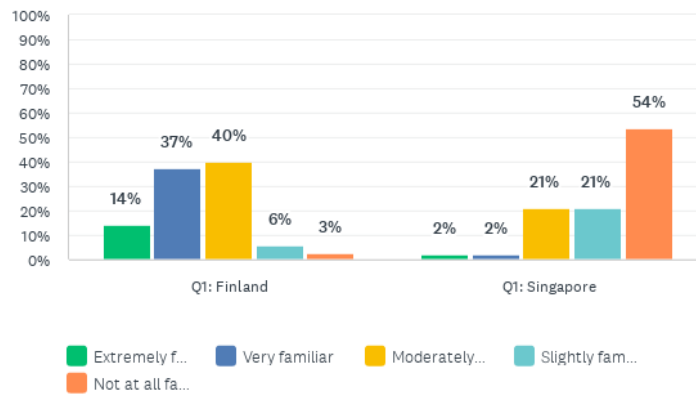


Figure 22. Familiarity with Circular Economy Concepts.

Touching on familiarity with the concept of the circular economy, the survey revealed a clear contrast between respondents from Finland and Singapore. According to the data, 40% of respondents in Finland indicated they were moderately familiar with the concept, and 37% were very familiar. This reflects a relatively high awareness level. However, in Singapore,

54% of respondents indicated being not familiar at all with the concept of circular economy. This came as a surprise, given Singapore’s push towards sustainability. Upon further reflection, it seems that while Singapore is indeed promoting sustainable practices, the specific concept of circular economy has yet to be embedded in the general public. This points to a potential gap in communication or public education on this topic.

#### Q4 How important is sustainability to you when making purchasing decisions?

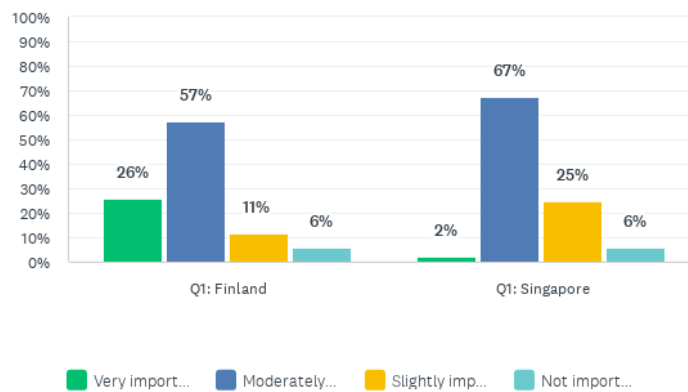


Figure 23. Importance of Sustainability in Consumer Decision-Making.

According to data obtained through the conducted survey, sustainability is a significant factor in consumer decision making for both Singaporean and Finnish consumers. Namely, 57% of respondents in Finland considered sustainability as “Moderately Important” and 26% as “Very Important”. 67% of respondents in Singapore considered sustainability as “Moderately Important” and 25% as “Slightly Important”. The findings are consistent with findings from the interviews which states that there is a shift in consumer preferences in Singapore with regards to sustainable products and services. This outcome may suggest that Singaporean consumers are nonetheless motivated by sustainability concerns and also reflects Singapore’s increasing focus on being a green city.

Q5 Are you willing to pay more for products or services that are sustainable and eco-friendly?

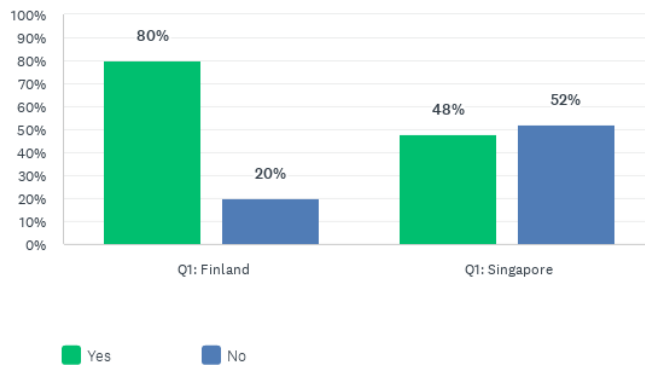


Figure 24. Willingness to Pay More for Sustainable Products.

In terms of willingness to pay more for sustainable products, Finland showed a strong majority, with 80% of respondents saying “Yes”. In Singapore, on the other hand, 52% of respondents expressed willingness to pay more while 48% said “No”. This result confirms the price-sensitive nature of the Singaporean market as mentioned in the company interviews. While sustainability is important to Singaporean consumers, it seems they are cautious about spending extra. This could be due to the rising cost of living in Singapore and products or services with higher price points can act as a deterrent.

Q6 What factors influence your decision to purchase sustainable products? (Select all that apply)

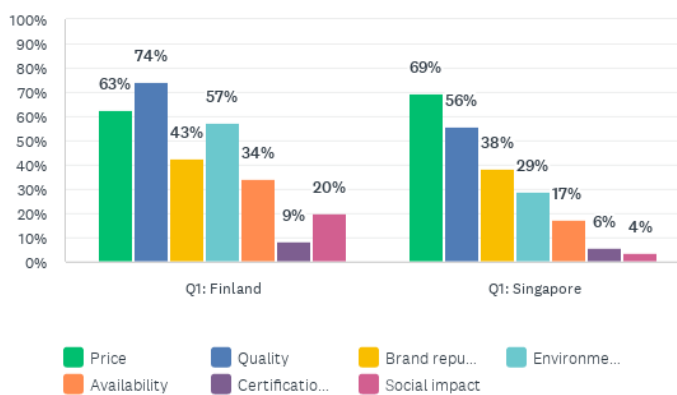


Figure 25. Key Factors Influencing Sustainable Purchases.

In both countries, similar factors influenced the decision to purchase sustainable products, but with different priorities. In Finland, quality was the leading factor (74%), followed by price (63%) and environmental impact (57%). This result aligns with the Finnish mentality of making well-thought-out, high-quality purchases. Finnish consumers seem to balance between being eco-conscious and expecting long-lasting, high-quality products.

In Singapore, the top factors were price (69%), quality (56%), and brand reputation (38%). This shows that while Singaporeans care about quality, the cost and perception of the brand play a significant role. This might also suggest that sustainability in Singapore is often tied to the image of a brand rather than the intrinsic qualities of a product.

This suggests that while Finnish companies entering the Singaporean market should emphasize affordability in their sustainable products, they must also communicate the environmental benefits to align with consumer values.

Q7 In which product/service categories do you prioritize sustainability? (Select all that apply)

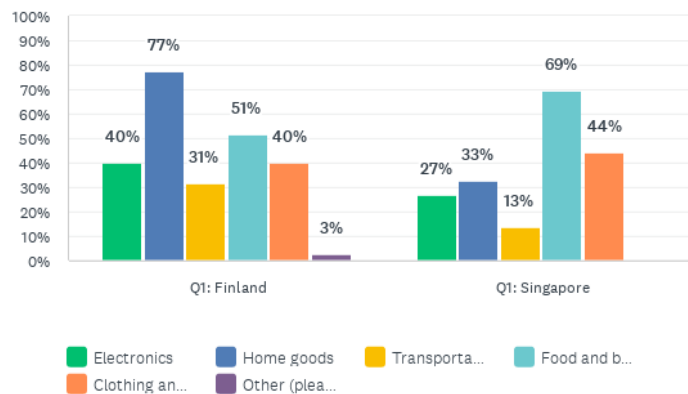


Figure 26. Prioritization of Sustainability by Product Category.

When it comes to which product categories consumers prioritize sustainability, both countries mentioned food and beverages, clothing, and home items as the most important. In Finland, the most popular category was home goods followed by food and beverages and then clothing. This is likely due to the fact that Finns generally focus on owning high-quality and durable household items. In Singapore, consumers indicated that the most popular

category was food and beverage followed by clothing and home goods. This is due to country's culture where food is an important aspect of their lives and their routines in Singapore.

Q8 How do you prefer to receive information about sustainable products/services? (Select all that apply)

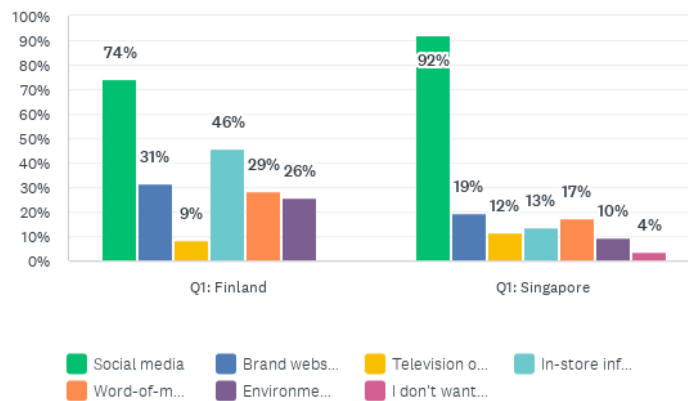


Figure 27. Preferred Channels for Receiving information on Sustainable Products.

Social media was a clear winner in both countries as the preferred channel for receiving information about sustainable products. 74% of Finnish consumers and 92% of Singaporean consumers prefer receiving information on social media, which is not surprising given the global shift towards digital communication. However, Finnish respondents also valued in-store information, with 46% reflecting a potential preference for seeing and experiencing products firsthand before making a purchase. On the other hand, Singaporean respondents relied more heavily on social media, which could be due to the tech-savvy nature of the population and the convenience of receiving information digitally.

Q9 What are the main barriers that prevent you from purchasing sustainable products or services? (Select all that apply)

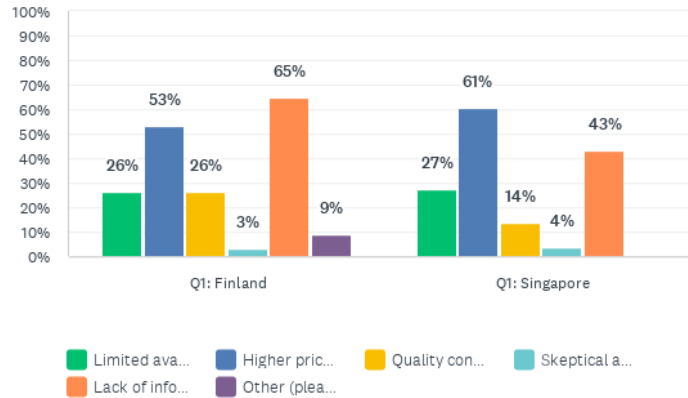


Figure 28. Barriers to Purchasing Sustainable Products.

Both countries reported similar barriers: price, lack of clear information, and availability of products. In Finland, the lack of clear information which was cited by 65% of respondents seemed to be the biggest barrier. While in Singapore, price took the lead, cited by 61% of respondents. This suggests that while Finnish consumers are ready to invest in sustainability, they need more transparent communication from companies about the environmental benefits of their products. In contrast, Singaporean consumers seem to struggle more with the cost, indicating that affordability is a more pressing concern in this market.

## Conclusion

The survey revealed several insights:

**Higher Familiarity in Finland:** Finnish consumers generally have a higher familiarity with the circular economy as compared to Singaporean consumers. This is likely due to the country's long-standing focus on sustainability and environmental education. This gap in awareness presents an opportunity for Finnish companies to play a role in educating the market.

**Consistent Demand for Sustainability:** Despite differences in familiarity and price sensitivity, there is a consistent demand for sustainable products in both markets, highlighting the universal appeal of sustainability in contemporary consumer behaviour.

**Price Sensitivity in Singapore:** Singaporean consumers are more price-sensitive, indicating the need for Finnish companies to balance cost with sustainability in their product offerings.

**Consumer Priorities:** There is a strong preference among Singaporean consumers for sustainability in food and beverages. This trend highlights a critical area of focus for Finnish companies. Aligning with these values is essential for achieving market success.

**Communication preferences:** Social media is the most preferred medium for consumers in Singapore to receive information about sustainable products and services. There is a need for Finnish companies to adapt their communication strategies to align with local consumer habits. It is crucial to utilize social media effectively to reach and engage Singaporean consumers.

## 9 RECOMMENDATIONS

Based on findings from the research, the author has identified several key recommendations for Finnish companies considering expanding into Singapore with a focus on sustainability and circular economy practices. These recommendations are not prescriptive but are offered as considerations for Finnish companies looking to expand their operations into Singapore.

### 9.1 Integrate Sustainability into Corporate Strategy

The research suggests that Finnish companies have the potential to excel in Singapore by implementing circular economy practices. Singapore is placing more emphasis on resource efficiency and waste reduction in response to its scarcity of natural resources. Finnish companies should incorporate circular economy concepts, like creating products with extended lifespans, establishing take-back initiatives, or utilizing recycled materials. For instance, a Finnish electronics company expanding into Singapore might provide a service for recycling products, urging customers to bring back old devices for appropriate disposal or repair. In the same way, a fashion brand, could start a program for recycling clothes, making sure that old garments are either upcycled or recycled, in line with Singapore's efforts to decrease waste. By adopting circular economy principles from the outset, Finnish companies can both comply with local regulations and build brand recognition as leaders in sustainability.

Singapore's regulatory environment strongly supports sustainable business practices. In particular, the government's ambitious Zero Waste Master Plan and Green Plan 2030. Finnish companies should ensure that they fully understand and comply with these local regulations. This means adopting practices such as efficient use of resources, waste reduction, and energy-saving technologies. This contributes to achieving Singapore's sustainability goals. For example, Singapore places great emphasis on reducing packaging waste. Therefore, Finnish companies entering the consumer goods or food sector should focus on introducing sustainable packaging options. This includes understanding local energy regulations and the adoption of renewable energy solutions in operations.

## 9.2 Market Entry Strategies

When considering market entry, Finnish companies need to carefully evaluate their strategies based on product characteristics, available resources, and long-term goals. Various approaches, such as direct exporting, joint ventures, or strategic partnerships, can serve different needs.

Direct Exporting may be a feasible choice for Finnish companies that possess specialized, high-value products without the need for customization in the local market. For example, businesses providing new sustainability solutions such as renewable energy technologies or biodegradable materials might see advantages from this approach. Exporting enables Finnish companies to explore the market with reduced initial expenses and minimal local presence, utilizing distributors or sales agents who have knowledge of the Singaporean market.

Another effective way for Finnish companies to expand sustainably in Singapore is through local partnerships. Singapore encourages collaboration between private companies, government agencies, and research institutions. Finnish companies can benefit by partnering with local businesses to share knowledge, pool resources, and navigate the local business landscape more effectively. For industries like fashion or organic food, forming local partnerships can help navigate the cultural and regulatory landscape of Singapore. A Finnish fashion brand could collaborate with local designers or sustainability advocates to create a line that resonates with Singaporean consumers.

If long-term market presence and full control are priorities, establishing a subsidiary is the way to go. This strategy works well for companies with substantial financial backing, such as Finnish fashion brands offering sustainable clothing. With full control over operations, a local subsidiary allows for deep market integration and better engagement with consumers. However, the costs and risks are higher, as companies need to navigate Singapore's strict environmental regulations and competitive marketplace.

### 9.3 Addressing Price Sensitivity

As the findings show, while Singaporean consumers are increasingly aware of sustainability, they still prioritize factors like price and brand reputation. Therefore, it is recommended that Finnish companies carefully balance sustainability with affordability to appeal to a broader market. This could involve offering more affordable, eco-friendly alternatives or focusing on premium segments where consumers are willing to pay more for sustainable products.

Since price is a significant barrier for many Singaporean consumers when purchasing sustainable products, Finnish companies need to be creative with their pricing strategies. One possible approach is to adopt a "product-as-a-service" model, where consumers pay for the use of a product rather than owning it outright. This not only reduces costs for consumers but also fits within the circular economy framework by emphasizing reuse and resource efficiency.

Different pricing levels can attract a broader range of customers, known as tiered pricing. For example, a Finnish company specializing in organic food could launch a simple selection of products created with ingredients sourced locally at reasonable prices, as well as providing high-end options such as organic chocolates or artisan breads. This method can cater to different market segments, allowing Finnish companies to reach a broader audience without compromising on their sustainability principles.

Singapore provides several incentives for sustainable businesses, such as the Enterprise Development Grant and Green Bond Grant Scheme. Finnish companies should actively seek these grants to lower operational costs. By leveraging these funds, companies can reduce the cost of sustainable goods and remain competitive in Singapore's price-sensitive market.

## 9.4 Cultural Adaptation

Finnish companies should focus on emphasizing the long-lasting advantages of high-quality, eco-friendly products to justify their higher prices, including increased durability, lower environmental impact, and energy or maintenance cost savings. An instance could be a Finnish electronics firm promoting energy-saving devices that have a higher initial price but lead to reduced electricity expenses in the long run. This enduring advantage is attractive to cost-conscious customers who continue to appreciate quality and sustainability.

Moreover, companies should invest in educating consumers about the long-term benefits of sustainable products. Based on data collected from the survey, social media is the preferred channel for Singaporean consumers and can be a powerful tool for this. Companies can use targeted campaigns to highlight how sustainable practices can enhance product quality, durability, and environmental impact, making the higher cost feel justified.

To be successful in Singapore, Finnish companies need to customize their strategies for entering the market, pricing models, and methods of engaging with consumers to align with the specific requirements of this highly regulated and price-sensitive market. By selecting the correct approach, leveraging government incentives, and engaging with local consumers through targeted campaigns, Finnish companies can build a solid market foothold and succeed in Singapore's challenging market environment.

## 10 CONCLUSION

### 10.1 Summary of Findings

This study reveals that sustainability can serve as a strategic differentiator for Finnish companies entering the Singaporean market. Singapore's initiatives, such as the Singapore Green Plan 2030 and Zero Waste Masterplan, actively support sustainability, creating a conducive setting for businesses dedicated to environmental accountability.

Finnish companies who are well-regarded for their inventive sustainable methods, can conform to these objectives to differentiate themselves. The findings show that:

1. When making purchases, Singaporean consumers are becoming more environmentally mindful. They are more inclined to support businesses that align with environmental goals, even when price sensitivity is still a concern. This shows how incorporating sustainability into corporate operations may help companies become more appealing to consumers.
2. Sustainability is a strategy to set companies apart and build trust with Singaporean consumers and not merely a matter of compliance. Companies can reduce costs and attract eco-aware consumers by using circular economy concepts like recycling and resource efficiency.
3. Strategic partnerships, particularly with local suppliers and government agencies, are critical for meeting regulatory requirements and increasing operating efficiency. Finnish companies that work with local businesses can meet Singapore's stringent environmental regulations while also strengthening their local market position.

These findings imply that aligning with Singapore's sustainability goals not only improves brand reputation, but also helps Finnish companies gain a competitive edge in a market where sustainability is increasingly important in both consumer decisions and government regulations.

## 10.2 Contribution to Sustainable Business Development

This research offers practical insights for businesses on how they can embed sustainability into their market entry strategies and foster long-term growth. An important aspect is highlighting the importance of principles of circular economy, like recycling and efficient use of resources. Businesses that implement these methods not only cut expenses but also satisfy consumer and regulatory demands in Singapore.

Furthermore, the research highlights the significance of establishing partnerships within the community. Working together with Singaporean companies or government organizations can assist Finnish businesses in overcoming initial obstacles when entering the market and establishing trust within the local community. For instance, collaborating with suppliers in the area can assist companies in meeting Singapore's rigorous environmental regulations and enhancing their reputation with customers.

## 10.3 Key Lessons

Firstly, for Finnish companies, it is essential to prioritize sustainability from the outset when entering the Singapore market. This goes beyond simply following local regulations but requires innovative approaches that integrate sustainability into consumer engagement strategies. It also highlights the importance of adapting business models to the local culture and market dynamics. The importance of consumer education stood out as well, especially since the survey showed that awareness of sustainability varies, particularly in Singapore. Even though consumers are becoming more interested in sustainable products, it is important to educate them about the lasting benefits of these products and maintain competitive prices.

Secondly, businesses must recognize that higher upfront costs are likely when transitioning to a circular economy. However, these costs can be mitigated by forming strategic partnerships and making use of government incentives, which Singapore offers to companies that invest in sustainability. Partnerships can also help companies overcome operational challenges, such as the lack of local suppliers for sustainable materials.

From a personal perspective, the author learned the value of adaptability, especially when conducting cross-cultural research. As a student from Singapore living in Finland,

understanding how to navigate the different perspectives and market nuances of both countries proved invaluable. The research process reinforced the idea that effective communication is key, not just in gathering data but also in conveying the significance of sustainability to different stakeholders. Additionally, the research highlighted the complexity of balancing theory with real-world business challenges, such as cost, consumer behaviour, and regulatory environments.

#### **10.4 Limitations and Suggestions for Future Research**

Like all research, this study has its limitations. The sample size of the survey was relatively small, which may limit the generalizability of the findings. In addition, the study focused on Finland and Singapore, and the results does not fully reflect the dynamics of other regions. Future research could expand by incorporating more respondents from various regions and industries to provide a more comprehensive analysis.

This research primarily addressed general sustainability practices without delving into sector-specific challenges. Future research could investigate how circular economy principles are implemented within key industries such as technology, fashion, or food production to better understand the unique obstacles and opportunities within each sector. Further investigation into long-term financial impacts of circular economy models on businesses could also offer deeper insights for companies that are hesitant about the initial costs of transitioning to more sustainable practices. Additionally, looking into consumer education and engagement strategies on a larger scale could help businesses better understand how to foster long-term behavioural change towards sustainability. With the rise of AI and IoT technologies, future research could also explore how Finnish companies can incorporate advanced technologies to enhance sustainability. Investigating how technological innovations, such as smart resource management systems, can support sustainable practices would provide deeper insights into the future of sustainable business.

Lastly, future research could investigate the direct impact of Singapore's environmental policies on businesses' sustainability efforts, evaluating how companies adapt to regulatory changes and whether these policies are driving meaningful progress toward circular economy goals.

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## **APPENDICES**

**Appendix 1. Survey Questions**

**Appendix 2. Interview Questions**

## Consumer Attitudes and Preferences Towards Sustainable Products and Services

The aim of this survey is to explore and compare consumer attitudes and preferences regarding the circular economy and sustainable products/services in Singapore and Finland. This research is part of a broader study that seeks to understand how businesses, particularly Finnish companies, can align their strategies with local consumer expectations and sustainability trends as they enter or expand in the Singaporean market.

1. Which country do you currently reside in?

- Finland
- Singapore
- Other (please specify)

2. What is your age range?

- Under 18
- 18-28
- 29-44
- 45-59
- 60+

3. How familiar are you with the concept of the circular economy?

- Extremely familiar
- Very familiar
- Moderately familiar

- Slightly familiar
- Not at all familiar

4. How important is sustainability to you when making purchasing decisions?

- Very important
- Moderately important
- Slightly important
- Not important

5. Are you willing to pay more for products or services that are sustainable and eco-friendly?

- Yes
- No

6. What factors influence your decision to purchase sustainable products? (Select all that apply)

- Price
- Quality
- Brand reputation
- Environmental impact
- Availability
- Certifications

- Social impact

7. In which product/service categories do you prioritize sustainability? (Select all that apply)

- Electronics
- Home goods
- Transportation
- Food and beverages
- Clothing and fashion
- Other (please specify)

8. How do you prefer to receive information about sustainable products/services? (Select all that apply)

- Social media
- Brand websites
- Television or radio ads
- In-store information
- Word-of-mouth recommendations
- Environmental organizations/NGOs
- I don't want to receive information about this

9. What are the main barriers that prevent you from purchasing sustainable products or services? (Select all that apply)

- Limited availability
- Higher prices compared to non-sustainable options
- Quality concerns
- Skeptical about environmental impact
- Lack of information/transparency on sustainability claims
- Other (please specify)

10. What would motivate you to purchase more sustainable products or services? (Select all that apply)

- Lower prices
- Clearer information on sustainability
- Higher quality of sustainable products
- Government incentives or regulations
- Social pressure or community support
- Other (please specify)

11. What specific actions would you like to see implemented in your country to promote sustainability and the circular economy?

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## **Company Overview**

Can you briefly introduce your company and its mission or vision?

## **Sustainability Practices and Strategy**

What specific sustainable practices or initiatives are you currently implementing? Could you describe their impact on your operations?

How important is sustainability in shaping your brand's reputation and consumer trust in Singapore?

What role does sustainability play in shaping your company's identity and competitive edge in Singapore?

## **Circular Economy**

Has your company adopted any circular economy principles (e.g., resource efficiency, waste reduction, product lifecycle extension)? If yes, can you provide examples?

What challenges have you faced when trying to integrate circular economy practices into your business operations?

Do you believe that Singapore's business environment supports the transition towards a circular economy? Why or why not?

## **Opportunities and Market Dynamics**

How does consumer demand for sustainable products and services in Singapore influence your company's strategy?

## **Strategic Partnerships and Adaptation**

Have you engaged in any strategic partnerships to enhance your sustainability efforts? If yes, how have these partnerships benefited your company?

How have you adapted your products, services, or operations to meet local sustainability standards or consumer expectations in Singapore?

### **Market Entry**

What advice would you offer to foreign companies looking to enter the Singaporean market with a sustainability-driven approach?

### **Future Outlook**

How do you see the role of sustainability evolving in the Singaporean business landscape over the next 5–10 years?

In your opinion, what trends in sustainability should companies entering Singapore pay attention to in the near future?