



Circular Strategies to Improve Consumer Goods Returns

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Abstract

As the importance of sustainability as a business strategy continues to grow, U.S. consumer goods companies must incorporate sustainability goals for critical business processes such as the product return process to minimize profit and waste. A general business problem is that leaders in the U.S. consumer goods industry have faced significant challenges in implementing sustainable solutions to reduce consumer product returns' economic and environmental impact. The circular economy (CE) is an approach to transition from the traditional take-make-waste linear business model to a closed-loop model focused on regenerating natural resources and extending the value of materials and goods. A gap in business practice is that leaders responsible for the product return process for consumer product companies across the U.S. have been slow to adopt circular business models. The purpose of this qualitative inquiry research was to explore the perspectives of thirteen circular economy (CE) experts with at least three years of CE experience to discover innovative strategies for the returns process to improve the adoption of a CE business model. The framework for this study was an adapted CE framework based on the butterfly diagram from the Ellen MacArthur Foundation. The expert data collected through semi-structured interviews was analyzed using thematic analysis. Five themes emerged from the analysis, including supply chain, business model disruption, reverse logistics, design, and CE enablers.

Keywords: Circular economy, Triple Bottom Line, Sustainability, Consumer product returns, Strategic planning, Business model

Introduction

The current linear business model, which focuses on resource extraction and promotes high consumption of goods, is unsustainable for the long term (Baden & Frei, 2022; Rodriguez et al., 2020). With current business models in place, there will be a need for two planets equivalent to the size of the earth to provide resources for consumer consumption and store waste in 2030 (The World Counts, 2022). Business leaders need to focus on sustainable innovation by balancing the concerns about the degradation of the environment and inequalities in society while still enjoying economic prosperity (Weidner et al., 2021). The triple bottom line (TBL) was introduced in 1994 as a way for business leaders to think about capitalism differently and encourage leaders to examine a company's social, environmental, and economic impact based on the growing focus on sustainability (Elkington, 2018). The circular economy (CE) is recognized as an opportunity for prosperity without compromising the planet (Circle Economy, 2021). The CE is a solution that supports redesigning business practices through the extended life of products to achieve sustainable business models (Bocken et al., 2019).

The consumer product returns process is a vital component of the business model for the consumer goods industry that needs to become more sustainable. Consumer product companies in the United States spend \$100 billion annually handling returns (Zhang et al., 2021) and contribute negatively to the environment due to waste created by the process, with an estimated 10% of all returns going to landfills (Ader et al., 2021). Managing product returns is complex and based on customer expectations regarding convenience, low cost, and sustainability. For example, poor practices such as having the consumer pay for returns would decrease expenditures with the same company (Espinosa et al., 2019). Baden and Frei (2022) indicated that customers who can return their products for free increase their spending by up to 450%. However, there are growing customer expectations related to the importance of environmental, social, and governance (ESG); 25% of consumers indicated they would focus on environmental issues related to their shopping habits (Gatzer & Magnin, 2021).

This study focused on exploring how the CE can improve managing returns in U.S. consumer products companies to address the TBL. The results of the study could assist company leaders in transitioning from their current linear business models to a circular business model. This transformation could create value for the company and positively impact the environment.

Problem of Practice

The general business problem is that U.S. consumer goods leaders have faced significant challenges in implementing sustainable solutions to meet their consumers' social, environmental, and financial concerns. For instance, the economic impact of consumer product returns results in an average annual lost revenue of 3.8% annually (Zhang et al., 2021). Zhang et al. (2021) estimated that in the United States in 2020, retail return rates were 5-10% in physical stores and up to 40% for online purchases worth an estimated value of \$428 billion of products returned each year costing companies billions of dollars (Zhang et al., 2021).

The specific business problem is many consumer goods companies are using outdated strategies for the returns process. Leaders of consumer goods companies in the U.S. have been slow to adopt new business models such as the CE (Rodriguez et al., 2020), to address the 6 billion pounds of returned goods waste in the United States annually (Hartmans, 2022; Hautala, 2022). Manufacturers and retailers spend \$100 million annually to handle product returns and \$550 billion on returns deliveries emitting 16 million metric tons of carbon dioxide annually (Hartmans, 2022; Zhang et al., 2021). Because of the slow adaptation to the circular economy, consumer goods companies are not able to obtain components of the TBL, including economic benefits of up to \$2 trillion (by 2030), productivity improvements, and cost savings in manufacturing up to 24%, and the reduction of resource dependence and waste (Karman & Pawlowski, 2022).

Purpose of Study

The purpose of this qualitative inquiry study was to explore sustainable innovative strategies regarding sustainability for the returns process to overcome the high physical and financial costs of consumer goods returns. There are negative impacts on consumer product companies based on the cost of processing returns. In addition to the hundreds of billions of dollars it costs companies to handle product returns, only 5% of products returned are defective (Zhang et al., 2021). However, 10% of all returns end up in landfill sites (Ader et al., 2021), suggesting millions of dollars of usable product is wasted.

To address sustainable innovation and transform current business models to the CE, consumer product leaders need more information on transforming their business models. Changing from the current linear business models to the CE is complex as firms must innovate for profitability while balancing sustainable development (Ardito et al., 2018; Jain et al., 2020). The intent of the study was to create practical strategies for sustainable innovation regarding product returns by exploring the opinions of CE experts. The gap in practice is that leaders responsible for the product return process for consumer product companies across the United States have been slow to adopt circular business models (Rodriguez et al., 2020). Frei et al. (2020) stated that the returns management process had been an overlooked business process even though it affected a company's profitability. They also found limited alignment between the current practice of handling product returns with the CE.

Research Question

This generic qualitative inquiry study explored the knowledge and experience of CE experts. The study was guided by a single research question (R.Q.) designed to close the gaps in practice and address the specific problem to support the adoption of the CE for the returns process.

R.Q.: What are the perspectives of CE experts of consumer goods companies in the United States to discover innovative strategies for the returns process to improve the adoption of a CE business model?

Summary of the Literature

Background

This study was focused on the consumer goods industry. A consumer good, known as a final good or product, is a product ready for consumption by a consumer and can be broken out further into durable goods intended to last longer than three years (Boyce, 2022). Durable products are fast-moving consumer goods purchased more frequently and have a shorter life than durable consumer goods and account for 35% of resource inputs into the economy and 75% of waste globally (Ellen MacArthur Foundation, 2013).

Consumer spending is how personal consumption is measured. Spending in the United States is estimated to be over \$14 billion in 2023 (IBISWorld, 2022a). The estimated retail sales value in 2022 in the U.S. was \$5,788 billion and is expected to grow by an annualized 1.6% over the next five years (IBISWorld, 2022b). In 2002, the percentage of business performed online was 8.98%, but by 2027, the estimated future rate of online purchasing will be 34.99% (IBISWorld, 2021). The growth of spending and online shopping will increase returns, creating more cost and complexity for companies (Zhang et al., 2021).

Circle Economy (2021) labeled the consumer goods industry as consumables and defined it as one of society's seven needs and wants. This industry is diverse, including products across multiple industries, such as clothing, food, electronics, and textiles (Circle Economy, 2021). The report indicated that consumables account for 5.6 billion tons of the 59.1 billion tons of greenhouse gas (GHG) emitted in 2019 (Circle Economy, 2021). Such environmental impact is measured throughout the value chain and includes the phases of take, process, produce, provide and end of use. Each value chain step has a component of waste in addition to the end-of-use phase of a consumable or product use (Circle Economy, 2021). The other critical process in the consumer goods value chain that occurs before the end of life and is central to this study is the returns process which includes the management of the return that needs to ensure a positive customer experience with the intent of value recovery of the product (PAT Research, n.d.).

The product returns process has not had a strategic focus (Ader et al., 2021; Frei et al., 2020). However, the product returns process is worth \$428 billion in the United States (Zhang et al., 2021) and causes significant waste issues (Hartmans, 2022; Hautala, 2022). Consumer online consumption grew by 27%, while brick-and-mortar stores grew by 8% from March 2021 to March 2022 (Alldredge et al., 2022). Consumers care about and are influenced by environmental, social, and governance (ESG) behaviors by the companies they purchase from (Alldredge et al., 2022). The returns process needs to have a strategic focus on sustainability based on the growth of consumption, the focus on ESG, the generation of waste, and lost profitability.

The following sections will help acquaint the reader with sustainability, the CE, the triple bottom line, and trends related to the consumer product industry. Research utilizing scholarly and practitioner literature will illustrate the challenges businesses have had transforming current business models to the CE that demonstrated the need for this study.

Sustainability in Business

Since the industrial revolution, the population of the world has continued to grow, the amount of material flowing through the economy has tripled, and instead of using what is already available, the extraction of natural material continues to occur (Circle Economy, 2022). According to Salguero-Puerta et al. (2019), the linear economic model evolved during the industrial revolution. Product creation started with resource extraction of natural resources and ended with product waste. Since then, several drivers have forced the convergence of environmental concerns with the corporate agenda, including the impacts of globalization in business related to sustainable development (Elkington, 2006). The linear model is unsustainable as the linear economy has caused a waste management issue affecting current and future world populations (Jaeger & Upadhyay, 2020; Salguero-Puerta et al., 2019). Addressing more than just economics in a business model has become necessary.

Companies have taken small steps to incorporate sustainability into their business strategy (Hatami & Segel, 2021). The term sustainability was defined in 1987 as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, n.d., para. 2). Introduced at the 2005 World Summit, sustainable development was a way for society to create strategies related to economics, society, and the protection of the environment. However, this triple bottom line approach has still not been widely adopted (Ardito et al., 2018).

Sustainability, the principle of producing goods and services while conducting minimal environmental damage, is fundamental to business (Hatami & Segel, 2021). Sustainable development is an approach that considers both economic development and ecological concerns. Sustainable innovation, which improves products or processes and focuses on ecological integrity and social equity without compromising profits, is still a new but steadily emerging research topic (Weidner et al., 2021). Ardito et al. (2018) described that companies should design growth strategies based on social inclusion, economic development, and the protection of the environment. There is growing pressure from consumers and governments to reevaluate organizations' business models to determine where they may be insufficient to meet such pressures (Jain et al., 2020). Over 80% of the executives surveyed indicated that they are increasing transparency in sustainability as sustainability plays a role in consumers' decision-making, impacting consumption and profits (Deloitte, 2022). Companies must think innovatively about their value chain to reduce environmental impacts, such as improving waste, reducing energy and water consumption, attracting new consumers, meeting profit goals, and growing market share (Jain et al., 2020).

The Circular Economy

The CE was created to address sustainability. The CE enables sustainability by reducing waste and pollution by using fewer products, using products for longer, regenerating them, and recycling them (Circle Economy, 2022). The CE works on three principles: taking out waste and pollution, extending the life of products and materials, and ensuring natural systems are being restored (Ellen MacArthur Foundation, n.d-a.). According to Prieto et al. (2018), the CE is a globally accepted solution to prevent pollution, protect the environment, and create economic wealth. The CE has seen legal and financial

support in the United Kingdom, China, the European Union, South Korea, and the United States (Prieto et al., 2018).

According to Kalmykova et al. (2018), stock optimization (or the looping structure of the CE for reuse and recycling) has been seen in economic theories discussed by scholars since the 1980s. The spaceman economy was structured as a cyclical system with the reproduction of materials, and the steady-state economy sought to balance growth and environmental integrity. Industrial ecology was the idea of integrating industrial systems with biological systems, and lastly, a concept using a closed resource flow system was known as cradle-to-cradle (Kalmykova et al., 2018). However, it is the CE that has gained the most traction. In China, a law to promote the CE was introduced in 2009, and the European Union introduced a CE package focused on waste reduction in 2015 (Moreau et al., 2017). In addition, practitioners globally, such as the Ellen MacArthur Foundation, started promoting awareness of the CE. The definition from the Ellen MacArthur Foundation became the most widely cited one, adopted by both academia and governments to drive consistent dialogue about the topic.

The CE is based on building resilience by diversity, shifting to renewable energy, thinking in terms of systems instead of just the parts, and thinking in circles to identify opportunities for value creation (Ellen MacArthur Foundation, 2013). The CE framework is also referred to as the butterfly diagram and has become compelling based on the opportunities business may have in a closed-loop or circular model (Howard et al., 2019). The CE framework includes two material cycles, biological and technical, and the material flow for each represents the wings in the butterfly model. The biological flow focuses on nutrients and their return to the biosphere, including composting processes that help regenerate natural capital. The technical cycle involves materials that neither degrade nor provide any nutrients, such as plastics, wood, and metals, so they do not naturally cascade. In the technical cycle, the intent is to prolong the optimal value of that material by maintaining, reusing, redistributing, refurbishing, remanufacturing, and recycling.

The CE model is different from the current linear model. The CE model focuses on the cascading materials and their reuse, treating each resource as valuable, versus the linear model, which is dependent on accessing resources in large quantities (Ellen MacArthur Foundation, 2013). The linear economy has provided great prosperity, as the global gross domestic product (GDP) has grown significantly between 1900 and 2000. Still, the linear economy is material and energy-intensive (Ellen MacArthur Foundation, 2013). Thinking circularly when innovating can provide benefits related to technological innovation, improved materials use, energy efficiency, and different profit opportunities for business and reduce environmental impact.

For a business to design circularly, it needs to understand where waste or leakage occurs in its supply chains (Ellen MacArthur Foundation, 2013). The cost of managing returns impacts profitability (Zhang et al., 2021), and is a source of waste creation for a company (Hartmans, 2022), so addressing the business practices of the consumer goods industry by evaluating the use of the CE as a business model is strategically necessary.

The Importance of the Triple Bottom Line

The term triple bottom line (TBL) was introduced in 1994 when there was a need to integrate the environmental topic with social and economic agendas. The intent was to demonstrate to companies that there were methods to create value in multiple dimensions (Elkington, 2006). The TBL created new questions related to the purpose of the business, the appropriate balance between shareholders and stakeholders, and what balance there should be with the components of the TBL. According to Elkington, three significant waves occurred from the 1960s to 2006, highlighting the need for an environmental agenda. These waves included environmental legislation in regions governed by the Organization for Economic Cooperation and Development (OECD) regions, the impact of acid rain on politics, issues like ozone depletion and rainforest destruction, and the impacts of the Chernobyl disaster. Sustainable development governance was introduced in 2002 by the U.N. World Summit with the advent of globalization in business. However, the challenge with the TBL was that the three components conflicted as they were not all measured in the same way (Elkington, 2018). In addition, there were challenges related to simultaneously enjoying the rewards for all three components (Weidner et al., 2021).

Ardito et al. (2018) indicated that since World Summit discussions in 2005 focused on the three pillars of the TBL, it was far from a dominant business model. The difficulty of aligning stakeholder goals and focusing only on short-term gains has caused challenges in moving to sustainable business models. The need to mitigate trade-offs between the three pillars of the TBL requires a strategic shift in firms, leading to restructuring, new supply chains, and a redefinition of the innovation value chain (Ardito et al., 2018). In addition, because there was a requirement for stakeholders to all agree to make changes, stakeholders' goals may not be aligned, making it hard to gain consensus. The fact that there has not been a standard approach to the implementation and measurement of TBL made it challenging to see Elkington's vision of reconciling economic, social, and environmental aspects (Ardito et al., 2018).

Industry Trends

Consumer spending for personal consumption on goods and services has seen steady growth. Consumer goods include clothing, electronics, sporting goods, kitchenware, hobby and craft supplies, office stationery, perfume, and fragrance (IBISWorld, 2022a). After the coronavirus, there was an expectation for increased spending due to profoundly ingrained spending habits and government financial injections in conjunction with wage growth. In 2002, consumer spending was worth \$9,088.7 billion, and in 2027, consumer spending is expected to be worth \$15,907.1 billion (IBISWorld, 2022a), of which the retail environment is worth \$6,252.9 billion (IBISWorld, 2022b). In 2013, the consumer goods industry globally was estimated to be responsible for 75% of solid waste and drove a significant loss of natural resources based on a rise in consumers (Ellen MacArthur Foundation, 2013). If not addressed, the increased purchasing of manufactured goods would create significant issues related to the depletion of natural resources and waste (Ellen MacArthur Foundation, 2013).

E-commerce became an important channel for retailers during the COVID-19 pandemic in 2020, contributing to the challenge of returns and waste. As shoppers stayed indoors, online sales increased by 50.5% in 2019 (Young, 2022). Online spending as part of retail sales has continued to increase since

2012 as the comfort of spending online and the experience of convenience made online shopping attractive. In 2012, e-commerce sales as a total percentage of retail spending were at 8%, and in 2021, the number doubled to 19.1%, worth \$4.55 trillion in the United States (Young, 2022). De Leeuw et al. (2016) reported that the return percentage of online apparel purchased in the United States was 30% in 2013. In 2020, just over 10% of online purchases were returned, with an estimated cost of returns to businesses equating to \$101 billion (Dopson, 2021). Up to 50% of returned products are sold again, returned to the manufacturers, or sold at significantly discounted prices to other companies. The rest equated to five billion pounds of garbage in landfill sites, and the transport alone created an estimated fifteen million metric tons of carbon dioxide emissions (Calma, 2019).

Challenges to adapting to the CE

Significant research has occurred related to the challenges of the transition from the linear business model to the circular model, including the lack of practical guidance on how to make the transition (Bocken et al., 2019; Gonzalez et al., 2020; Prieto et al. 2018). Bocken et al. (2019) analyzed tools for CE business model innovation. The researchers recognized a need to adapt the business model to become circular based on pressures for sustainability and found several published tools. Bocken et al. (2019) attributed the speed of adoption to the fact that literature supporting the transformation was still surfacing.

Similarly, Gonzalez et al. (2020) indicated that the process of circular business model innovation (CBMI) remained under-explored, resulting in a lack of guidelines for firms as most of the literature was theoretical, and further insight was required. Bocken et al. (2019) found that tools were not in use for a few reasons, including their complexity or, conversely, that they were too generic, for instance, the use of Osterwalder's business model canvas to use as a transformation tool. The CE adoption has been slow because the process is complex. Innovation challenges due to CBMI are iterative, not sequential, and implementing would require the organization to enter uncharted business practices requiring changes to supply chain partnerships and the development of new organizational capabilities (Gonzalez et al., 2020).

Transformation uncertainties are related to going against how the business performs today (Bocken et al., 2019; Gonzalez et al., 2020; Linder & Williander, 2017). The change is complex, as firms must innovate for profitability while balancing sustainable development (Ardito et al., 2018; Jain et al., 2021). Businesses do not have organizational structures that treat sustainability as a material business issue (DeSmet et al., 2021) or ownership or leadership for the process of returns (Ader et al., 2021; Frei et al., 2020). There is a need to implement critical success factors to make better decisions (Julianelli et al., 2020; Sehnem et al., 2019). Linder and Williander (2017) identified an issue with a lack of supporting regulation. According to Lahti et al. (2018), legislation had been introduced in various countries to stimulate an economy to be circular, but such legislation also drove uncertainty. To support more accurate decision-making, improved use of digital technology to gather and analyze informative data is necessary (Ader et al., 2021; Subramoniam et al., 2021). In addition, it is difficult for shareholders to agree to change due to a lack of metrics and short-term gain (Ardito et al., 2018; Sehnem et al., 2019).

Researchers Frei et al. (2020) and de Leeuw et al. (2016) cited significant challenges specific to the returns process and how the process impacted profitability. However, while de Leeuw et al. focused on

understanding the effects of operational practices on the returns process and how to improve profitability, Frei et al. focused more specifically on the barriers to implementing the CE to deal with returns. De Leeuw et al. found several challenges, including simple returns policies and refunds for online retail where a consumer had no opportunity to inspect a product before purchase, were even more costly. De Leeuw et al. analysis focused on consumer behavior factors such as determining consumer justifications for product returns, including defective products, products that were not a fit, and products that consumers regretted purchasing, suggested that the more accessible retailers make it to perform returns to bolster customer satisfaction, the more returns they will experience. Frei et al. (2020) identified in their research that there existed a belief that returns were just a cost of doing business.

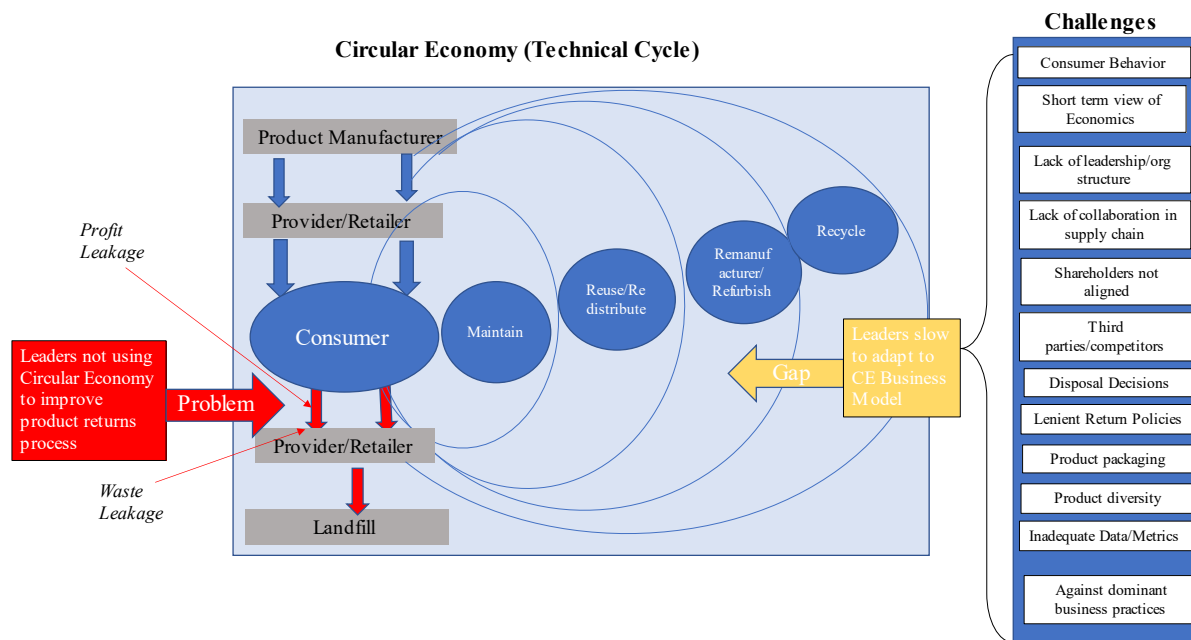
The Adapted CE Framework

The CE framework (butterfly diagram) from the Ellen MacArthur Foundation has been adapted specifically for this study. The framework focuses on the business practice of consumer product returns due to profit and waste leakage and highlights where the problem occurs with the red arrow. The adapted CE framework also includes the challenges related to the gap in practice. The adapted framework will only utilize the CE's technical flow as this study does not look at biological flows. The technical wing focuses on retaining the value of a product for as long as possible. This technical cycle applies to this study as the cycle aims to minimize the products going to landfills, eliminate waste and pollution, and circulate products and materials longer (Ellen MacArthur Foundation, n.d.-b, Definitions).

Figure 1 is an adaptation of the butterfly diagram representing the circular framework. The left side of Figure 1 highlights the study problem that consumer product company leaders have not taken advantage of CE business models to improve the product return process impacting the company's profitability and the environment (Ader et al., 2021). The red arrow points to when the consumer returns something to where they purchased it. The center of the framework includes the spine of the butterfly representing a condensed product lifecycle from what is contained in the original diagram. The portion of the spine utilized for this framework excluded the components of natural materials being extracted from the earth and then processed. The spine now includes the product manufacturer providing the product to the retailer that sells it to the consumer, who can return the product to where it was initially purchased. Zhang et al. (2021) stated that the retail returns rate exceeded 10% in the United States in 2020, valued at \$428 billion of products returned. The circles in the diagram illustrate that the intent is to maintain, reuse, redistribute, remanufacture, and refurbish products in the CE, which are critical concepts in creating the interview questions. The last desire is to recycle as it is a minor value activity, and in a well-designed CE, the focus is on preventing waste (Ellen MacArthur Foundation, n.d.-b).

Figure 1

The Adapted Circular Economy Framework



Note. From *The butterfly diagram: visualising the circular economy*, Ellen MacArthur Foundation, 2021 <https://ellenmacarthurfoundation.org/circular-economy-diagram>. 2019 Copyright@ Ellen MacArthur Foundation. Adapted with permission.

The literature review revealed many challenges that caused the gap in practice, including leaders being slow to adapt to the CE business model and not using the circular economy to improve the product return process. These challenges are outlined on the right side of the framework and include transformation uncertainties related to going against dominant business practices (Bocken et al., 2019; Gonzalez et al., 2020; Linder & Williander, 2017) and change complexity associated with the balance of investment and profits (Ardito et al., 2018; Jain et al., 2020). Businesses do not have organizational structures that treat sustainability as a material business issue (DeSmet et al., 2021) or ownership or leadership of returns management (Ader et al., 2021; Frei et al., 2020). There needs to be improved technology (Ader et al., 2021; Subramoniam et al., 2021), and there are challenges related to shareholders (Ardito et al., 2018; Sehnem et al., 2019). For the returns process specifically, there are challenges due to the impact of packaging (Frei et al., 2020; Sehnem et al., 2019), consumer behavior or expectations (Ader et al., 2021; de Leeuw et al., 2016; Frei et al., 2020) and the diversity of products (Frei et al., 2020). Overcoming these challenges will be critical in advancing a CE business model.

Methodology

Summary of Methodology

A general inquiry qualitative methodology was used to explore CE expert professional opinions. Expert sampling with interview questions were the research instrument. Ten open ended interview questions, listed in the appendix, were designed to explore experts' perspectives on the CE and answer the research question of *what are the perspectives of CE experts of consumer goods companies in the United States to discover innovative strategies for the returns process to improve the adoption of a CE business model?* The study approach included a field test to test the reliability and validity of the interview questions and help ensure the questions yielded the intended results.

Participant Information

Prior to scheduling the interviews, participants were asked to complete the informed consent document and a screening questionnaire using a Google Docs form. The screening form collected qualification information on years of CE experience, industry experience, education level, and location to ensure participants met the CE expert criteria and for descriptive statistical analysis. If a respondent showed interest but did not meet expert participant requirements, they were thanked for their time and excluded from the study.

Consumer goods companies are often multinational so having the global experience of the participants provided broad perspectives. The overall participant experience in the CE averaged 5.46 years, with an average of 3.15 years working in the consumer product goods industry. The participants' locations were in eight countries, including Australia, Belgium, Canada, India, Italy, the Netherlands, and the United Kingdom, with the highest number sourced from the United States. The years of CE experience ranged from the United States with an average of 4.8 years, and the rest of the participants had an average of 6 years. Table 1 includes the participant data, including years of CE experience, interview duration, and overall industry experience.

Table 1
Participation Information

Participant	Years of CE Experience	Interview Duration	Industry Experience
1	5+	54:40	Consulting across multiple industries
2	3+	55:38	Manufacturing, Consumer Product Industry, Information Technology
3	5+	56:33	Financial/Investment, Healthcare/Pharmaceutical, Manufacturing, Electronics, Consumer Product Industry,

			Travel & Hospitality, Mining & Energy, Information Technology, Education
4	3+	59:07	Financial/Investment, Consumer Product Industry, NGO
5	3+	69:55	Manufacturing, Information Technology, NGO
6	3+	59:06	Consulting across multiple industries
7	3+	54:07	Mining & Energy, NGO, Manufacturing, Consumer Product Industry
8	5+	55:48	Financial/Investment, Manufacturing, Electronics, Policies Development
9	3+	52:31	Financial/Investment, Healthcare/Pharmaceutical, Manufacturing, Electronics, Consumer Product Industry, Information Technology
10	20+	54:07	Healthcare/Pharmaceutical, Manufacturing, Consumer Product Industry, Consulting, NGO
11	10+	52:48	Electronics; Information Technology, NGO Consulting
12	5+	68:54	Healthcare/Pharmaceutical, Manufacturing, Consulting, Consumer Products Industry
13	5+	57:29	Consumer Product Industry

Data Collection Process

Data collection for this study occurred through semi-structured interviews, which began on July 18, 2022, ending with the final interview on September 15, 2022. LinkedIn was the source for recruiting. Recruitment occurred using the LinkedIn InMail feature to email directly to LinkedIn members with the necessary CE experience and through LinkedIn groups focused on the circular economy.

In this study, expert sampling was used to target a population of knowledgeable CE participants. In total, 151 individual emails were sent via LinkedIn. There were 13 interviewees who met the expert CE criteria and were willing to participate in the study. The semi-structured interviews occurred through Zoom conferencing and were recorded as per the informed consent that each participant signed. Each interview included introductions, a review of the information provided in the recruitment communication, and the ability to ask clarifying questions. After the completion of the interview, the audio recording was converted to a transcript utilizing the transcription services available on Zoom. Once the transcripts were available, the transcript was downloaded into a .doc format and saved to a password-protected and encrypted hard drive. A transcript review was performed by listening to the interview audio while editing

any issues and deidentifying any personal information related to the participant or organizations mentioned in the document. Participants were sent a copy of their transcript and asked to verify the content's accuracy and reply within five business days with any changes which needed to be made.

Data Analysis

Analysis for this study was based on inductive thematic analysis, which focused on the data collected in the interviews. The process included three cycles with multiple iterations within each cycle. The first cycle included the initialization and construction phases. The second cycle included rectification and finalization, where themes were validated to ensure they answered the study question. The final cycle was the creation of the final report.

Initialization and Construction Phases

The initialization phase included both manual coding as well as the use of automation. The importance of this phase was to become acquainted with the data collected to adequately move to the subsequent phases of the construction process, which was to assemble data into categories.

Initialization

In cycle one, initialization was used to understand the data collected from the 13 interviews from the transcripts and field notes and create initial codes. The initial manual coding began with organizing the field notes collected during the interviews, highlighting the data on printed transcripts, and making any memos on the transcripts manually. Based on this initial data collection, a manual codebook was created in an excel spreadsheet. The codebook provided the first view of all codes created and a way to determine if there were any initial patterns. A review was performed to ensure alignment with the adapted CE framework for critical terms such as maintain, reuse/redistribute, remanufacture/refurbish, and recycle and any synergies with the identified challenges. Several more codes related to design, incentives, supply chain, consumer, and reverse logistics emerged that aligned with the literature review. The initial manual codebook included 42 codes and was the basis of creating the code framework in the Dedoose software for further iterations of analysis.

The subsequent iterations of coding in this cycle were performed in the Dedoose software. The use of automation supported understanding the data in more depth and understanding if there were any dependencies within the codes. The qualitative data analysis software Dedoose enabled assigning descriptors to participant data, including location and years of CE experience, uploading the interview transcripts, creating the code tree from the initial manual codebook, and performing document excerpting. The results of a systemic and in-depth review throughout the entire dataset using Dedoose resulted in 454 excerpts meaning how many highlights were created, 59 codes, and a total of 1202 code applications, which is the total number of times the codes were used across the excerpts.

Construction Phase

The construction phase commenced by organizing the codes in a systematic order. The Dedoose software offered multiple qualitative analysis tools to identify trends in the codes across the participants, the frequency of use of the code across all the excerpts, and the pairing of codes. Reviewing these reports and data helped to understand the codebook's framework further and assisted with categorizing the codes.

The code presence report determined the top codes across all participants, indicating a significant trend of importance. The code that was present across all the participants was the supply chain. While this code did not have the highest code count, it is considered important due to its presence across all participants. Codes that were present across 12 participants were strategy, reuse, government legislation/regulation, consumer behavior, and CE values. Understanding frequencies helped to understand the importance and usage of the codes and assisted with the categorization process.

The code application chart was another analysis tool that demonstrated the codes' importance by understanding how often they applied to an excerpt. The top 10 code usage across all excerpts were CE values, material composition, reuse, consumer behavior, strategy, government legislation/regulation, service models, collaboration, financial incentives, and new partners/markets. Lastly, the code co-occurrence report provided the frequency of code pairings across all the excerpts, demonstrating interdependencies. The highest code pairing of 13 times was service models and asset ownership showing a solid relationship, like strategy and CE values paired ten times, and recycling ecosystem and collections ecosystem paired nine times. Lastly, the top 5 codes paired with other codes were CE Values paired 150 times, material composition paired 127 times, reuse paired 121 times, strategy paired 105 times, and recycling paired 86 times, demonstrating a connection across all codes.

Categories were created after multiple reviews of the data and understanding the perspectives of the CE experts. Understanding frequencies, total code counts, code pairing, and a logical review of the data and the codes, both manually and automated, yielded 11 categories moving towards the final steps of defining the themes to answer the study question.

Rectification and Finalization Phases

After the first cycle of initialization and construction was complete, the second cycle commenced. This phase was used to validate any emerging themes against the literature review and ensure that it did not show researcher bias. This cycle included reviewing the relationships and similarities of the categories. The logical organization of the categories produced the final five themes used to address the study question. Each theme is critical to change. However, in most cases, there are dependencies among the themes. Only one will not completely transform a business to solve the problem of returns but using all five as a framework and thinking as a business ecosystem will enable leaders to progress. Table 2 demonstrates the progress of the 59 final codes to the 11 categories that comprise the final five themes.

Table 2
Codes to Categories to Themes

Codes	Categories	Theme
Cradle-to-cradle design, derive value, design for durability, material composition, product design, product traceability, and transparency	Design	Rethinking the entire product design lifecycle, including strategies related to product returns and the material used in products, is critical to enabling a circular business model.
Collections ecosystem, recycling ecosystem, reverse logistics, waste management	Reverse Logistics	A comprehensive strategic focus on reverse logistics operations is vital to address collections and recycling ecosystems to improve the returns process
New partners/markets, smart contracts, supply chain, supply chain transparency	Supply Chain	Ensuring transparency and innovation with new partners in the supply chain is critical to improvements to the returns process and the adoption of a circular business model
Asset ownership, business model, service models, brand reputation, common definition of CE, competition, the definition of future consumer behavior and consumption, financials, global, patient capital/investment, strategy, business education and awareness, consumer behavior, consumer confidence/relationship, culture, mindset, new skills/roles, transformation	Circular Business Models, Strategy, Transformation, Consumer Relationships	Transforming to circular business models to improve profit and waste leakage of the returns process requires rethinking the entire ethos, with disruption related to revenue streams, investment strategies, and changes to customer behavior and relationships
Enablers, metrics, environmental impacts, financial incentives, volumes of waste, innovation, technology, collaboration, disruption, government legislation/regulation, knowledgeable and supportive leadership, CE values, closed loop, recycling, refurbishment, repair, repurpose, reuse, upcycling	Enablers, Innovation, CE Values	CE business model transformation will require the use of a multitude of enablers, including understanding and utilizing CE values and principles to promote, facilitate, and support the change

Note. The category of challenges is found throughout all the themes.

Results

Theme Narrative

The last cycle of data analysis was to present the story of the data and connect it to the study question of *what are the perspectives of CE experts of consumer goods companies in the United States to discover innovative strategies for the returns process to improve the adoption of a CE business model?* The gravity of the impact of the linear business model, confirmed by the CE experts, was an affirmation of the importance and the criticality of assisting leaders in consumer goods companies to transform into a CE business model using CE expert recommendations and strategies from the five themes. The following sections describe the themes in more detail and provide actionable strategies identified by the experts to support each theme.

Theme 1. Rethinking the entire product design lifecycle

The first theme identified included strategies related to product design and the material used in products which are critical to enabling improvements in the returns process based on the significant code usage for design methods and material composition of products. P5 indicated, “The design stage is critical as today's business focuses on the products they produce and waste management, but it must start with the raw materials and the product design.” Jaeger and Upadhyay (2020) and Sehnem et al. (2019) also highlighted the lack of circular design in products. P3 indicated, “Product companies are not incented today to include the circular impact in their design. The intent of the design was for function, and there was no consideration that the product would return.”

P3 offered, “The sweet spot is in the product's design, research, and development to ensure a positive impact.” P2 also said, “The product's design, including defining the material specification, has been a primary requirement contributing to the CE. Not only is designing products to focus on renewably sourced or compostable types of materials, but it is also designing away from materials detrimental to the environment, such as petroleum-based products.” P1 indicated:

It is imperative to look at the value of raw materials differently and rethink the purpose of that material to be profitable. The material specification is critical in the design, and today, materials are chosen based on what is cheap and what is easy, but specifying materials based on what can be recycled, refurbished, or reused is also a requirement for a CE business model.

P12 offered, “Product design needs to be different. Product designers need to consider the entire lifecycle of a product and look forward and understand what materials will not be available through the supply chain in the future.” Adding the returns process as a part of the design process would address the concern that the returns management process had been an overlooked business process even though it affected a company's profitability (Frei et al., 2020). P8 also suggested “A cradle-to-cradle approach to design, essential elements were the increased use of collaboration and CE education.” The participants offered several suggestions on how to design in addition to including circular materials within the

product. P2 suggested, “Thinking in a modular fashion. If the product is made modular, it can be broken into subsystems.”

Theme 1 aligns with the findings in the literature review related to the challenge of how products are designed. The lack of circular design in products was highlighted by Jaeger and Upadhyay (2020 and Sehnem et al. (2019). However, the strategies identified by the various CE experts provide broader thinking on addressing the design issues. P2 said:

The product's design, including defining the material specification, has been a primary requirement contributing to the CE. Not only is designing products to focus on renewably sourced or compostable types of materials, but it is also designing away from materials detrimental to the environment, such as petroleum-based products.

A summary of the strategies for theme one that participants discussed and dependencies on other themes are included in Table 3.

Table 3
Theme 1 Strategy

Strategies	PSource	Dependent Themes
Design from a cradle-to-cradle perspective, including the returns process	P12, P8, P10	2
Design for durability to ensure extended use of the product or materials	P1	3
Use environmentally friendly materials in the design	P2, P10	3
Design for modularity	P2	2, 3, 4
Design for disassembly	P10	2, 3, 4
Design based on user cycles	P6	2, 3, 4
Include technology within the product to allow for traceability	P2, P7	5

Note. PSource indicates the participant who discussed the strategy.

Theme 2. Viewing reverse logistics strategically

The second theme focused on having a comprehensive strategic focus on reverse logistics operations which is vital to address collections and recycling ecosystems to improve the returns process. P3 indicated that in their experience, “If a company is not encouraged or incented to take a product back,

they will not design a process to take the product back, which is critical to improving the returns process.” The returns process is logistics, and P7 indicated:

If a consumer product company has the logistics to sell and distribute a product, there is a need to have the same level of logistics to bring that product back properly. The design of a returns process needs to consider taking things from multiple locations and centralizing them again in an efficient manner.

The data also showed that a high code co-occurrence with collections ecosystems and recycling systems makes the ability to collect and recycle returns a vital component of a strategy.

The challenge of lenient return policies can be reduced with traceability and clear ownership in a well-organized collections ecosystem. P1 suggested, “There needs to be a strategy related to how to get the product back from the consumer and offered that there are exciting start-ups to consider that are focusing on the packaging component of the returns process.” Javed et al. (2021) suggested using reverse logistics to improve disposition decisions. P1 echoed that suggestion and said, “Consider new start-ups driving transparency in the supply chain using blockchain technology and other digital technologies, which could apply to a reverse supply chain and the returns process.” P7 offered, “Traceability helps to understand the material composition's purpose and how the product should be handled, not disposed of.” P4 posed a question “is it better or worse for a company to invest in their reverse logistics and the extra cost burden more than the negative publicity they get?” and to further that suggestion, P12 suggested changing the landfill is cheaper mindset “What if instead of being a cost center, reverse logistics became a revenue center?” P7 also offered, “Clear ownership was essential to discourage the easy decisions of sending returns to landfill.” Asset ownership will be discussed further in theme 4, but a change in the ownership of a product is essential to change the detrimental decisions made when products are returned.

A summary of the strategies for theme two that various participants discussed and dependencies on other themes are included in Table 4.

Table 4
Theme 2 Strategy Summary

Strategies	PSource	Dependent Themes
Implement easy collections systems with the use of incentives to ensure products are returned	P1	4
Improve disposition decisions for product and material composition with the use of new technologies	P1, P7	5
Leverage new partners to design reverse logistics ecosystems	P1, P9	3, 5
Define asset ownership to enable standards for disposition decisions and ensure products are returned	P7	4

Collaborate internally and externally with the industry to drive government incentives and regulations for standard waste and recycling management	P4, P9, P11	5
Consider reverse logistics as a reverse supply chain and ensure that suppliers are aligned with CE values	P7	3
Ensure the reverse logistics operation is revenue generating, not just a cost of doing business	P12	4

Note. PSource indicates the participant who discussed the strategy.

Theme 3. Ensuring transparency and innovation and new partners in the supply chain

The third theme identified the supply chain as critical to improving the returns process and adopting a circular business model. This theme was identified due to the agreement of all participants in the data analysis that the supply chain must be addressed and that the need for new partnerships is vital for change. To start to plan a transformation to the CE, P1 recommended, “Because every company buys from other companies, the supply chain is the place to start, including widening the vision of whom they will need to engage with for the transformation.” P11 estimated that “75% to 85% of a company's carbon footprint is in the supply chain and that the company is just a piece of that supply chain,” making it a critical item to look at for business model transformation. P4 recommended:

First, a business should look at the supply chain and understand how circular it is. Then understand how it impacts the product, procurement, how circular the material comes back, and whether there is an infrastructure to take that product material back to stay in place.

Identifying new types of partners or collaborating with the grey or secondary markets can help to facilitate the movement of returned products for a low cost and allow for traceability. P3 spoke about grey markets, “A market that offers unwanted or surplus product,” and P6 talked about how furniture manufacturers now own second-hand furniture stores where “When people don’t want their furniture, they can bring it back.” Frei et al. (2020) identified that companies feared reuse competitors selling their products inexpensively, making it essential to ensure that a consumer products company has secondary markets such as online auctions within their supply chain. P2 said, “The supply chain is an ecosystem, and other smaller ecosystems, like a recycling ecosystem, could be important for business model transformation. Limiting the number of actors needed in that ecosystem will improve cost.”

P7 indicated, “Every company in the material supply chain that buys product needs to understand circular economy concepts and interiorize those in the purchasing process.” P9 recommended, “You need to make sure you design it in such a way and collaborate in such a way and create a supply chain in a way that it's 100% reuse.” P1 echoed the need for suppliers' targets but added, “Ensure very high standards regarding social responsibilities on how suppliers manage their waste and maximize the efficiency of their resources and the importance of including these in contracts with suppliers.” Lastly, P5 offered, “Look outside the comfort zone of the current business and look at smaller innovative companies that may even be in the same industry to take on new partnerships with a common goal of becoming more circular.”

P7 suggested, “To start asking our suppliers to ask your providers or clients even what happens with the materials.” Transparency in the supply chain is essential as P6 indicated that you could have “blind spots” in the supply chain, which means that “you can have a business model that’s more circular, but that does not respect human rights.” P5 also offered, “we want to know about the footprint of our suppliers in order to understand our own carbon footprint.”

A summary of the strategies for theme three that were discussed by various participants and the theme’s dependencies on other themes are included in Table 5.

Table 5
Theme 3 Strategy Summary

Strategies	PSource	Dependent Themes
Create a baseline for circularity in the supply chain in the company	P1, P2, P4, P10, P11	4, 5
Ensure that the purchasing process includes CE concepts and validate contract alignment to corporate CE goals	P1, P7, P8	4, 5
Investigate and consider new and different partners, particularly entrepreneurial companies focused on sustainability	P5	2, 5
Drive transparency throughout the supply chain	P5, P7	2, 5
Keep the reselling of products internal to the company to manage competition related to secondary markets	P2, P6	2, 4
Determine future material requirements	P10	1

Note: PSource indicates the participant who discussed the strategy.

Theme 4. Rethinking the ethos of the business model

The fourth theme suggests that transforming to circular business models to improve profit and waste leakage of the returns process requires rethinking the entire ethos, with disruption related to revenue streams, investment strategies, and changes to customer behavior and relationships. This theme emerged based on high usage of the various codes within this theme.

When analyzing various models discussed across all the interviews, a service model code was created and referred to a shift from current transactional to service-based. Baden and Frei (2020) referred to these models as access-based approaches that provide access to products instead of ownership. P5 said, “When you change business models to a circular business model, you usually servitize products; instead of selling the product, you sell the service.” Various service models mentioned in the data were subscription, leasing, rental, sharing, and product-as-service models. Service models differ from a financial perspective as they look at long-term profits rather than quicker profits. P10 said, “It makes sense to ensure that products are returned to get materials back. Companies will make money because

they will need to spend less on materials, and there will be a continuous customer relationship.” If service models are enabled, this will change multiple components, including the ownership of the product and how items such as insurance play a role. P10 indicated, “A business could be secured by controlling the materials needed to make a new product coupled with a design based on cycles, ensuring the product has a higher residual value and can drive a different transactional model.”

Changing asset ownership is essential in a service model. The significant pairing of the codes service models and asset ownership makes it a critical concept in a very different business model from today for consumer goods companies. When using circular models, there is a need for the business to retain the ownership of that product to get it back. Service models make obvious disposition decisions when something comes back, resolving the challenges identified by de Leeuw et al. (2016). P10 said, “In these models, companies do not transfer the economic ownership of the product.” P5 indicated, “This allows the company to repurpose, remake and rethink the product and minimize its waste.” New competencies may be required for service models. P12 shared the importance of insurance regarding products as services and said:

When you are used to just selling products forward, you have a manufacturer warranty, but when things start coming back, insurance becomes a critical competence and a critical understanding that 99% of companies in the exciting business model does not have.

There are different elements of a strategy to be considered. One is changing the business context. P12 recommended “Change the definition of success by just profit” and “Genuinely broaden the definition of value to include social and environmental impacts.” Another element is viewing the strategy from a global perspective. P8 noted that globalization is both a challenge and an opportunity and said, “The world is all connected and should facilitate and contribute to innovative discussions if everyone can relax and think on how to contribute to having a better and more sustainable world.” There are also challenges related to the local context, as P3 offered, “The conditions triggering a successful CE economy in the E.U. may offer no benefit to a community in Africa, South America, or North America. The concept of circularity may offer global benefits but is subject to local conditions.” P3 suggested the following:

There must be a consideration of the impact of actions or programs at the local or manufacturing plant level. If a business is attempting to optimize its operations through new programs or training, local level impacts to the operation must be considered.

Another consideration is to have an unambiguous definition of the CE

P5 suggested “Strategizing what long-term consumption means for the company.” P12 explained, “The definition of success must change to a broader definition than just financial value and include that of social and environmental impact,” which echoed the work of Elkington (2006) but also demonstrates that since its inception in 1994, it has still not been widely adopted.

There is a potential to use CE concepts for new revenue streams. P9 offered that “Shareholders want to know how to make or save money by improving the return process. However, they will also get excited

if they can create new revenue by non-linear means”, including creating a business with products that can be used in multiple cycles instead of just one. As indicated by P9, “If the shareholders are excited about making money nonlinearly, they will support continuous change.” P2 recommended “Ensuring that the reverse logistics organization was transformed from a cost center to a revenue stream.” P9 recommended, “Rethinking repair services to ensure that broken returns can be repaired and keep products in place longer.” However, circular business models are new territory, and as P5 said, “There must be sacrifices for the change to happen.” P6 offered:

Two things grab shareholders' attention when presenting a circular economy. One is cost savings, so if you tell them it will be cheaper, and sometimes with some circular economy strategies, you have a big upfront investment, and then over time, that solution will be cheaper. The second is the social aspect. Not only becoming greener, but you are also educating people and creating new jobs.

Multiple participants mentioned the upfront costs and the need for and change in how investment is viewed, P1 offered, “The amount of money generated is not going to be immediate and up from, but more steady over time, and I think there’s a lot of talk about reframing investors thinking into more patient capital.” P5 said that support from the board was necessary as “The decisions they are taking for the business is a very long investment for the future.” P4 offered:

The first start in circularity is operations internally. Identify where you can save money by circular inputs like renewable energy or reuse of materials which gets your finance department aboard. You start to build out the platform to look at all of your expenses.

New players or organizations may be necessary to drive change. P10 proposed:

When you are a large company and you want to innovate and create a circular economy ecosystem, an ecosystem is dependent on multiple variables, then you need an emerging team. This emerging team of different people developing new technology is placed outside the organization, so they are not limited by standard operating procedures because that kills what is needed, and that is passion, and that is drive. If you outpace them, you can outpace as an organization your market growth, so when it goes out of an incubator stage, you can include them in the company.

Similarly, P12 offered:

In order for one organization to become circular, ultimately, what you need is a troublemaker working from outside, but in the same industry, from a small enough and nimble enough organization, that will disrupt the industry because from inside, you cannot do it fast enough.

Consumer behavior was identified as a challenge to transforming to the CE by de Leeuw et al. (2016) and Frei et al. (2020). However, P10 said, “Consumer behavior would also be a force for change as there will be a point where they will not accept the current approach to consumer goods handling.” P12 provided a similar thought, “Consumer expectations and awareness were changing, and it will be critical for consumer goods companies to consider their actions and behaviors.” P12 indicated, “The best motivation to move to the CE is that the competition is doing it, and customers are asking for it.”

P6 suggested that “The company must understand the market, but an important strategy is to define the consumption requirements for the future and meet those needs.” P5 also suggested, “We need to start changing, starting with every individual and how we look at consumption.” P7 suggested, “Understanding global consumption patterns as developed countries have higher purchasing power than less developed countries.” As business models change, it is essential to understand how consumers will accept the concept. P12 highlighted, “When companies change business models to service models, the ongoing relationships with the customer become extended, so the customer support model also needs to change.” A summary of the strategies for theme four that were discussed by various participants and the theme’s dependencies on other themes are included in Table 6.

Table 6
Theme 4 Strategy Summary

Strategies	PSource	Dependent Themes
Determine what circular means to a business and when determining strategy consider the local context and the impacts of circular activities	P5, P8, P3	1, 2, 3, 5
Evaluate the business from an entire lifecycle process design perspective and determine what circular means to that business.	P4, P12, P3	1, 2, 3, 5
Evaluate a change to service models, including impacts of asset ownership	P10	1, 2, 3, 5
Determine what new competencies or capabilities are essential in a new model, such as insurance	P5	1, 2, 3, 5
Identify new revenue streams that can be created with a change to the business model.	P9, P2	1, 2, 3, 5
To manage shareholder expectations, determine a hybrid revenue model using linear and circular strategies.	P5	1, 2, 3, 5
Define a portion of the business to move to circular such as packaging or operations to start.	P13	1, 2, 3, 5
Invest in a team to focus on circular innovation for the company with limited traditional restrictions.	P10, P12	1, 2, 3, 5
Create returns processes that are easy and compatible with consumer needs and behaviors	P12, P9, P13	1, 2
Use social media and influencers to provide education and awareness on the importance of the CE and how consumers can support the CE	P8, P11	5
Use appropriate incentives for consumers to return products appropriately	P10	5
Provide reporting related to sustainability practices to create consumer confidence	P11	5

Define what consumption looks like in the future	P6, P5, P7	5
Create long-term customer relationship models to align with service-based models	P10	1

Note. PSource indicates the participant who discussed the strategy.

Theme 5. Multiple enablers are necessary to support change

The fifth theme identified is CE business model transformation will require using several enablers, including understanding and utilizing CE values and principles to promote, facilitate, and support the change due to very high code presence in the data analysis for several of the codes within this theme. P4 suggested, “The CE is the most significant enabling environment for moving to a CE business model.” The significant application of the codes CE values, reuse, and recycling throughout the data supported this statement.

Utilizing the CE principles to define what sustainability means to the business is essential, and just as important is defining what consumption means in the future to that specific business. P4 offered “The importance of defining what the CE means to a particular company and helping their H.R. and business units define what it means to them to ensure acceptance.” P7 offered, “To do this requires knowledge of the CE and new capabilities,” P8 stated:

The circular economy model might be something that is simple to understand, it could be easy to comprehend, but they will own a process, and all the connections and all the phases for the product from the material to the end of the lifecycle.

Thinking about closing the loop and how to incorporate critical components such as reuse, repair, refurbishment, and recycling within the business is critical. An example of this comes from P10, who said, “I’m not going to sell you a chair anymore. I’m going to provide you the service of comfortable seating”. Another example is from P2, who mentioned a company that manufactures water pumps to ensure fresh drinking water, however “they don’t claim themselves to be a pump manufacturer, they are a water solutions company.” Lastly, P3 encouraged “The CE to be a well-understood concept through the supply chain and procurement and become second nature throughout the entire business lifecycle.” P12 stated:

In order to change, I ended up working and collaborating with every single function of the company. In a company that produces a product, more time creating enlightenment is in the supply chain, and more specifically in logistics will be important.

P8 offered, “Collaboration with those on the same journey is essential at the beginning of a company's journey to a circular model.” P8 continued, “Start from trusting other partners, other companies, and they should start sharing anything, which is a circular mindset.” P5 indicated that “about half of the innovative small companies out there actually have a solution, but it is just about looking outside your comfort zone and understanding what we need to take on new partnerships.” P1 suggested, “Going circular requires the internal collaboration amongst teams as well as external collaboration even with

competitors who may become really good allies when turning circular because they may be facing the same problem.” P6 discussed the importance of multidisciplinary thinking and said, “Look at industrial symbiosis, and you cannot think in your silo of what your business does, think outside the box of this industry to who also uses this product that we use, or they waste that product we use.”

Government legislation and regulation had a high code application frequency and were present in 12 of the 13 participants. Participants 3, 4, 6, and 9 suggested that most companies will not change unless legally required. P7 also stated the importance of government attention to companies' waste management. P13 also cited drivers for CE change our customers and competition but added that it was also regulation. Based on the experience of P4, they suggested focusing on ensuring that businesses look wisely at what can be done and find the appropriate incentives to mitigate any risk. P2 also recommended identifying incentives, such as financial incentives offered by the government, to move to a circular model.

There is a need for new leadership with the accountability and support of stakeholders that can inspire and enable the redefinition of the business model, including leadership open to external collaboration. P4 indicated that a position, such as a Chief Sustainability Officer, must have business unit responsibility to move forward, and it cannot be part of a communications or public relations group. P1 identified, “Business needs to infuse solid leadership that understands all of the circular economy's dimensions.” P5 was aligned and indicated:

Businesses need something new from a leadership perspective. Leaders need to go beyond the traditional way of working and are knowledgeable about the CE. These leaders are the influencers inside the company who implemented the right policies and procedures to ensure a circular system.

Subramoniam et al. (2021) recommended using digital technology such as (A.I.) and blockchain to improve analytics and decision-making. P2 also offered “I.T. systems must be enabled enough to capture material specifications in their products, and there is an opportunity for companies to focus on this as part of their strategy.” P13 furthered the technology discussion and offered, “There are many opportunities to improve current data infrastructures to capture the material composition of products aligned with the supply chain.” P3 said, “relevant sustainability information is collected and stored, but departments perform work on multitudes of different platforms that are unable to speak with each other,” supporting improved transparency and traceability. P2 offered, “In the IoT economy, because of the connected world, it is possible actually to embed software and tools to improve traceability of products.” Multiple participants recommended that technology was imperative to enable transparency and traceability in the supply chain. P12 recommended product passports and material passports, which store essential information related to the product “To know what is in the products,” which was like Participants 2 and 13 when they addressed using barcodes to capture data. P6 provided insight into a digital watermark technology that can be used on plastics to improve collections and recycling ecosystems.

P6 said, “A company needs to have broader metrics for recycling, removing pollution,” and, like P10, P6 said, “you want to have an economic system that improves the lives of people, removes pollution, improves health what different benefits that the circular economy could offer are.” P12 offered, “This is

where technology such as product passports can help monitor usage and track materials, enabling better decision-making for executives and leaders responsible for returns decisions.” P7 offered:

The concept of neutrality as a measurement. If the business puts one ton of plastic in the market, the business must figure out how to recycle one ton, and there must be measurements for everything a company puts in the market, including packaging.

Another important measurement is quantifying potential liabilities based on not following regulations or not adhering to commitments to consumers related to environmental goals, which is an important metric to use in a business case. P10 offered, “The shareholder does not want to find that the company they invested in finds itself in legal suits, quarrels with customers, so liabilities is a topic to quantify.” A summary of the enabler strategies that the various participants discussed, and the theme dependencies are included in Table 7.

Table 7
Theme 5 Strategy Summary

Strategies	PSource	Dependent Themes
Collaborate with companies that are on a CE journey	P8	3, 4
Collaborate with new and different groups internally and externally	P1, P6, P5, P8, P12	3
Through collaboration, force appropriate legislation	P6	
Investigate financial incentives from the government	P2, P4	4
Infuse solid leadership that understands the CE and are influencers internally and externally	P1, P4, P7, P6	4
Utilize the concepts of maintain/repair, reuse/redistribute, refurbish/repurpose, and recycle in the company and think of solutions instead of products	P2, P10	1, 2, 3, 4
Use digital technologies to improve analytics and decision-making	P2, P6, P12, P13	1, 3, 4
Measure business commitments regarding CE, including the concept of neutrality	P6, P7, P10, P12	4
Drive shared understanding of what the circular economy means to the specific business across the value chain	P4, P7, P6	4
Supporting CE requires new capabilities and can create new roles across the entire value chain	P7	1, 2, 3, 4

Force CE conversations from the highest level of the organization and provide awareness and education throughout to create a CE culture and mindset.

P3, P12

4

Note. PSource indicates the participant who discussed the strategy.

The category of challenges is found throughout all five themes. The participants mirrored several challenges identified in the literature review, such as consumer behavior (de Leeuw et al., 2016; Frei et al., 2020; Javed et al., 2021), product and packaging diversity (Frei et al., 2020; Jaeger & Upadhyay, 2020; Linder & Williander, 2017), linear business model inertia and the desire for a quick return on investment (Jaeger & Upadhyay, 2020; Jain et al., 2020; Linder & Williander, 2017), as well as the lack of supporting legislation (Lahti et al., 2018; Linder and Williander (2017)). In addition, P11 added challenges of cheap products when they said, "We are always in this mindset of making and selling the cheapest thing, and the cheapest thing is not the most sustainable," as well as a challenge related to collaborating globally and "Looking at the complexity of transboundary movements" related to the global movement of materials and products.

Research Question Revisited

The research question was, *what are the perspectives of CE experts of consumer goods companies in the United States to discover innovative strategies for the returns process to improve the adoption of a CE business model?* The answer to that question requires rethinking the current business model. In the interview with P4, when asked what business model components needed to change to improve the returns process by adopting a CE business model, they responded, "Well, everything because it's moving from linear to circular. Change requires thinking and an ethos that changes from top to bottom." P5 said, "If you want to look at circular business models, you have to look at two perspectives, inside and outside. What is coming into the business in terms of supply chain and how you design products. Rethinking the lifecycle of selling the product from ideation to retirement will drive rethinking the quality of raw and secondary materials utilized in the process." Using creative collaboration and introducing new types of partnerships into the supply chain is critical. Reframing investor thinking from quick return on investment to "patient capital" is necessary in business cases that will be more long-term and advocate selling services instead of products or where products are designed to retain their value for longer. Using technology to make the product smarter to trace and monitor the materials is a critical enabler. Having knowledgeable and supportive leadership driving a culture of CE awareness internally and externally is vital and having the financial incentives, and legislation in place to force an entire business ecosystem redesign is essential.

Contribution to the Adapted Framework

This study adapted the original CE framework (butterfly diagram) from the Ellen MacArthur Foundation, which did not specifically consider the consumer products returns process. The adapted model demonstrated a problem with significant profit and waste leakage and a gap in the practice of the slow adoption of the CE, as shown in the adapted CE framework in Figure 1. The principles of the framework were to keep the value of a product for as long as possible and to minimize the products

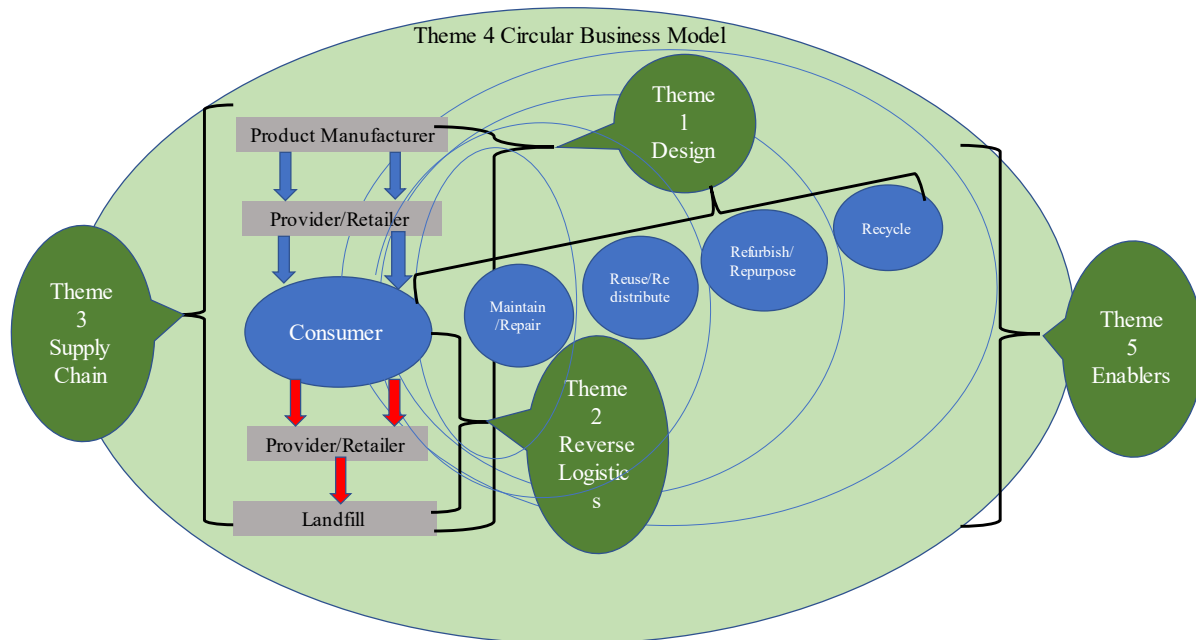
going to landfills, eliminate waste and pollution, and circulate products and materials longer (Ellen MacArthur Foundation, n.d.-b, Definitions). The themes identified in the study align with those principles.

The data analysis results have advanced that framework to the Circular Business Model Transformation Framework (CBMTF). By viewing the framework as a circular business model with essential capabilities that reflect the five themes, the CBMTF is now a workable tool that includes the necessary strategic components to address CE transformation. The CBMTF shown in Figure 2 includes the spine showing the product lifecycle of the product manufacturer providing the product to the retailer that sells it to the consumer, who can return the product to where it was initially purchased. It also includes the closed loop values shown in blue as the study findings confirmed the essential circular concepts of the CE, such as maintain, reuse/redistribute, remanufacture/refurbish, and recycle. However, the framework in Figure 2 now includes the five themes in green. The entire green circle represents theme 4 (circular business model) and theme 3 (supply chain), which primarily focused on the manufacturing spine but included the whole portfolio of suppliers in the model. Theme 1 (design) includes the CE values and the consumer shown in blue, and it is dependent on the supply chain. The framework shows the importance of theme 2 (reverse logistics) and focuses on the return of products from the consumer to reduce waste. Lastly, the framework illustrates the importance of theme 5 with internal and external enablers necessary to support the transformation throughout the entire circular business model. The modifications to this framework provide visibility throughout the whole value chain of what must be addressed in a circular business model to resolve profit and waste leakage of the returns process and the slow adoption of the CE business model to implement sustainable business practices.

Leaders of U.S. consumer product companies and practitioners with the goals of moving business to a CE business model can utilize the CBMTF as a guide in conjunction with the strategies from the CE experts described throughout the five themes to strategize the business model transformation of consumer product goods companies and improve the returns process.

Figure 2

Circular Business Model Transformation Framework (CBMTF)



Summary and Recommendations

The insights from this study can provide business leaders and practitioners strategies to advance the movement of the CE business model and address profit and waste leakage areas such as the returns process. Participants 3 and 11 offered suggestions of foresight as two final recommendations to the leaders of consumer goods companies in the United States. P3 suggested, “Businesses should watch what is happening in Europe concerning legislation and adopting the CE business model.” P11 offered, “Material may not derive value today to recycle to make a product, so understand what that means to the business when that material is no longer available.”

Applications

The study findings can provide critical insight to business leaders, consultants, and strategists interested in progressing the transformation to the CE and improving the progress of the consumer products industry in incorporating sustainable innovation into their strategies. The strategies identified in the study findings can be used to develop strategic roadmaps for changes to business policies or processes,

assess the current business model's circularity, and formulate recommendations for related initiative planning for established and new companies.

Each theme within the CBMTF can be assessed individually, where leaders and strategists can identify actions necessary to start the CE transformation process. For instance, business leaders could use theme 5, having knowledgeable and supportive leadership to create a circular culture and mindset across the value chain, to define what circular means to their business, and determine future consumption requirements. Creating a baseline of theme 3 to determine the circularity of the supply chain would enable an understanding of what new partnerships and collaboration are necessary. This baseline would support both tactical and strategic changes in the supply chain. To focus on improving returns specifically, looking within reverse logistics and determining exactly how decisions are made related to products and the partners that need to improve them. Alternatively, leaders and practitioners can start with theme 1 to determine what is needed in product and process design to become more circular and what materials will be required in the future, which will then dictate what changes will be necessary for the supply chain. Individually reviewing the themes begins with an evaluation of the appropriate transformation initiatives. However, reviewing the themes together will create a cohesive long-term strategy based on their dependencies. Whatever methodology is employed, consideration of consumer behavior and buying patterns need to be incorporated. As well, measurements are vital to measure progress, improve the volumes of global waste reported by the Ellen MacArthur Foundation, and address that less than 9% of businesses are utilizing a circular model (Circle Economy, 2022).

Recommendations

This study looked broadly at the consumer goods industry, where product diversity and industry diversity are challenges. A recommendation for future qualitative research is to limit the business model transformation research to a specific industry segment where profit and waste leakage need considerable attention and address how to balance the TBL for that specific segment or industry. As noted by P7, "It is essential to understand what products can move to circular business models." Another future research recommendation is to perform exploratory research to examine the relationship between consumer behavior and business change to service-based models. Because consumer behavior plays a significant role in business transformation, future research, including CE, behavioral, and marketing experts, to determine how best to change business models from ownership to a service model is vital to support CE transformation.

Conclusion

Amplifying the sustainable innovation challenge is that consumer spending is expected to increase in the United States (Alldredge et al., 2022; IBISWorld, 2022b), resulting in higher returns. An estimated 20% of returns from online shopping alone (Shehu et al., 2020) will add to the already five billion pounds of garbage in landfill sites resulting from product returns (Calma, 2019). Managing customer expectations, making a profit, and managing the environmental impact make addressing sustainable innovation imperative for consumer product companies (Alsayegh et al., 2020).

This research explored innovative strategies to improve the returns process for consumer product companies in the United States with CE experts. Currently, business leaders utilize outdated strategies and are slow to adopt the CE to address the millions of dollars needed to manage the returns process and the millions of pounds of waste that the process creates. This study progressed previous knowledge on CE and advanced the applied framework that grounded the study into a valuable tool to improve the consumer products return process. Five themes were identified related to the strategies needed for transformation. To move to the CE, companies need to consider a move to service models which alter asset ownership, rethink the design of products in conjunction with a change in source materials, and enable traceability throughout a product's lifecycle with innovative technology. It is critical to drive transparency in the supply chain, reevaluate the importance of reverse logistics with the appropriate collections and recycling ecosystems, and increase collaboration with new partners, all with the infusion of CE values throughout the value chain. These strategies can further leaders' and practitioners' pursuit of circular economy business model transformation. However, no immediate strategy will break any barriers and dramatically change the returns process's current financial and environmental impacts. P6 said, "Creating products and then asking how to improve the returns process is asking the wrong question in the wrong order."

With problems with natural resource shortages occurring faster than the ability of humanity to resolve them (Rodriguez et al., 2020), the pressure for sustainable innovation continues. Companies will need to make significant changes to their business models and experience external incentives and consistent global regulations on the extraction and processing of materials to move forward on CE adaptation. Transformation to the CE in the United States will be challenging to achieve but a goal very much worth pursuing.

References

- Ader, J., Adhi, P., Chai, J., Singer, M., Touse, S., & Yankelevich, H. (2021). *Returning to order: Improving returns management for apparel companies*. McKinsey & Company. <https://www.mckinsey.com/industries/retail/our-insights/returning-to-order-improving-returns-management-for-apparel-companies>
- Allredge, K., Charm, T., Falardeau, E., & Robinson, K. (2022, May). *How U.S. consumers are feeling, shopping, and spending-what it means for companies*. McKinsey & Company. <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/how-us-consumers-are-feeling-shopping-and-spending-and-what-it-means-for-companies>
- Ardito, L., Carrillo-Hermosilla, J., del Río, P., & Pontrandolfo, P. (2018). Corporate social responsibility and environmental management invite contributions for a special issue on 'Sustainable innovation: Processes, strategies, and outcomes'. *Corporate Social-Responsibility and Environmental Management*, 25(1), 106-109. <https://doi.org/10.1002/csr.1487>
- Baden, D., & Frei, R. (2022). Product returns: An opportunity to shift towards an access-based economy? *Sustainability*, 14(1), 410. <https://doi.org/10.3390/su14010410>
- Bocken, N. M. P., Strupeit, L., Whalen, K., & Nußholz, J. (2019). A review and evaluation of circular business model innovation tools. *Sustainability*, 11(8), 2210. <https://doi.org/10.3390/su11082210>
- Boyce, P. (2022, March 11). *Consumer goods definition*. BoyceWire. <https://boycewire.com/consumer-goods-definition-types-and-examples/>
- Calma, J. (2019, December 26). *Free returns come with an environmental cost*. The Verge. <https://www.theverge.com/2019/12/26/21031855/free-returns-environmental-cost-holiday-online-shopping-amazon>
- Circle Economy. (2021). *The circularity gap report*. <https://www.circularity-gap.world/2021>
- Circle Economy. (2022). *The circularity gap report*. <https://www.circularity-gap.world/2022>
- de Leeuw, S., Minguela-Rata, B., Sabet, E., Boter, J., & Sigurðardóttir, R. (2016). Trade-offs in managing commercial consumer returns for online apparel retailer. *International Journal of Operations & Production Management*, 36(6), 710-731. <http://doi.org/10.1108/IJOPM-01-2015-0010>
- Deloitte. (2022). *2022 Consumer products industry outlook*. <https://www2.deloitte.com/us/en/pages/consumer-business/articles/consumer-products-industry-outlook.html>
- DeSmet, A., Gao, W., Henderson, K., & Hundertmark, T. (2021). *Organizing for sustainability success: Where, and how, leaders can start*. McKinsey & Company.

<https://www.mckinsey.com/business-functions/sustainability/our-insights/organizing-for-sustainability-success-where-and-how-leaders-can-start>

- Dopson, E. (2021). *The plague of ecommerce return rates and how to maintain profitability*. Shopifyplus. <https://www.shopify.com/enterprise/ecommerce-returns>
- Elkington, J. (2006). Governance for sustainability. *Corporate Governance: An International Review*, 14(6), 522-529. <https://doi.org/10.1111/j.1467-8683.2006.00527.x>
- Elkington, J. (2018, June 25). 25 years ago, I coined the phrase 'triple bottom line', here's why it's time to rethink it. *Harvard Business Review Digital Articles*, 2–5. <https://hbr.org/2018/06/25-years-ago-i-coined-the-phrase-triple-bottom-line-heres-why-im-giving-up-on-it>
- Ellen MacArthur Foundation. (n.d.-a). *The circular economy in detail*. <https://archive.ellenmacarthurfoundation.org/explore/the-circular-economy-in-detail>
- Ellen MacArthur Foundation. (n.d.-b). *Glossary*. <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/glossary>
- Ellen MacArthur Foundation. (2013). *Towards the circular economy*. <https://emf.thirdlight.com/link/coj8yt1jogq8-hkhkq2/@/preview/1?o>
- Ellen MacArthur Foundation. (2019). Circular economy diagram. <https://ellenmacarthurfoundation.org/circular-economy-diagram>
- Ellen MacArthur Foundation. (2020). *The global commitment 2020 progress report*. <https://ellenmacarthurfoundation.org/news/global-commitment-2020-progress-report-published>
- Espinosa, J. A., Davis, D., Stock, J., & Monahan, L. (2019). Exploring the processing of product returns from a complex adaptive system perspective. *International Journal of Logistics Management*, 30(3), 699-722. <https://doi.org/10.1108/ijlm-08-2018-0216>
- Frei, R., Jack, L., & Krzyzaniak, S. (2020). Sustainable reverse supply chains and circular economy in multichannel retail returns. *Business Strategy & the Environment*, 29(5), 1925–1940. <https://doi.org/10.1002/bse.2479>
- Gatzer, S., & Magnin, C. (2021). *Prioritizing sustainability in the consumer sector*. The Daily Read; McKenzie & Company. <https://www.mckinsey.com/industries/retail/our-insights/prioritizing-sustainability-in-the-consumer-sector?cid=other-eml-dre-mip-mck&hlkid=b9933480617f4070a8e7356a3a6fa384&hctky=12955670&hdpid=00f50589-63af-47a8-b39b-11cad68a66ab>
- Gonzalez, T. S. M., Walter, J. V., Vermeulen, W. J. V., & Baumgartner, R. J. (2020). *Business model innovation for the circular economy: An empirical exploration of best practices*. Paper presented

at the ISPIM Conference; Manchester, U.K. 1-10.
<https://search.proquest.com/docview/2424115665>

- Hartmans, A. (2022, January 8). Shoppers are expected to return up to \$120 billion worth of holiday gifts this year – the process is costly to retailers, annoying to customers, and harmful to the planet. *Business Insider*. <https://www.businessinsider.com/what-happens-to-retained-products-restock-resale-landfill-2022-1#:~:text=Retailers%20spend%20as%20much%20as,returns%20ends%20up%20in%20landfills.>
- Hatami, H., & Segel, L. H. (2021, September 8). *What matters most? Five priorities for CEOs in the next normal*. McKinsey & Company. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/what-matters-most-five-priorities-for-ceos-in-the-next-normal?cid=other-eml-ofl-mip-mck&hlkid=ef98eb64fb0247a281181b45f4b98ce7&hctky=12955670&hdpid=a93837d9-6eaf-40d1-86fa-d1c33c4a2a28>
- Hautala, L. (2022, January 25). *Returned online buys burn fuel and fill the dump. Here's what could change*. CNET. <https://www.cnet.com/tech/services-and-software/returned-online-buys-burn-fuel-and-fill-the-dump-heres-what-could-change/>
- Howard, M., Hopkinson, P., & Miemczyk, J. (2019). The regenerative supply chain: a framework for developing circular economy indicators. *International Journal of Production Research*, 57(23), 7300–7318. <https://doi.org/10.1080/00207543.2018.1524166>
- IBISWorld. (2021). Percentage of business conducted online: Business environment report F320. *IBISWorld*. <https://my-ibisworld-com.library.capella.edu/us/en/business-environment-profiles/f320/business-environment-profile>
- IBISWorld. (2022a). Consumer spending: Business environment report B201. *IBISWorld*. <https://my-ibisworld-com.library.capella.edu/us/en/business-environment-profiles/b201/business-environment-profile>
- IBISWorld. (2022b). Total retail sales: Business environment report B308. *IBISWorld*. <https://my-ibisworld-com.library.capella.edu/us/en/business-environment-profiles/b308/business-environment-profile>
- Jaeger, B., & Upadhyay, A. (2020). Understanding barriers to circular economy: Cases from the manufacturing industry. *Journal of Enterprise Information Management*, 33(4), 729-745. <http://doi.org/10.1108/JEIM-02-2019-0047>
- Jain, P., Chou, M. C., Fan, F., & Michelle, P. S. (2020). Embedding sustainability in the consumer goods innovation cycle and enabling tools to measure progress and capabilities. *Sustainability*, 13(12), 6662. <https://doi.org/10.3390/su13126662>

- Javed, H., Firdousi, S. F., Murad, M., Jiatong, W., & Abrar, M. (2021). Exploring disposition decision for sustainable reverse logistics in the era of A circular economy: Applying the triple bottom line approach in the manufacturing industry. *International Journal of Supply and Operations Management*, 8(1), 53-68. <http://doi.org/10.22034/IJSOM.2021.1.5>
- Julianelli, V., Caiado, R. G. G., Scavarda, L. F., & Cruz, S. P. (2020). Interplay between reverse logistics and circular economy: Critical success factors-based taxonomy and framework. *Resources, Conservation and Recycling*, 158, 104784. HYPERLINK "about:blank" <https://doi.org/10.1016/j.resconrec.2020.104784>
- Kalmykova, Y., Sadagopan, M., & Rosado, L. (2018). Circular economy: From review of theories and practices to development of implementation tools. *Resources, Conservation and Recycling*, 135, 190-201. <https://doi.org/10.1016/j.resconrec.2017.10.034>
- Karman, A., & Pawlowski, M. (2022). Circular economy competitiveness evaluation model based on the catastrophe progression method. *Journal of Environmental Management*, 303, 114223-114223. <https://doi.org/10.1016/j.jenvman.2021.114223>
- Lahti, T., Wincent, J., & Parida, V. (2018). A definition and theoretical review of the circular economy, value creation, and sustainable business models: Where are we now and where should research move in the future? *Sustainability*, 10(8), 2799. HYPERLINK "about:blank" <http://dx.doi.org/10.3390/su10082799>
- Linder, M., & Williander, M. (2017). Circular business model innovation: Inherent uncertainties. *Business Strategy and the Environment*, 26(2), 182-196. <https://doi.org/10.1002/bse.1906>
- Moreau, V., Sahakian, M., Griethuysen, P., & Vuille, F. (2017). Coming full circle: Why social and institutional dimensions matter for the circular economy. *Journal of Industrial Ecology*, 21(3), 497-506. <https://doi.org/10.1111/jiec.12598>
- PAT Research. (n.d.). *All about consumer product industry: Key segments, value chain and competitive advantage*. <https://www.predictiveanalyticstoday.com/what-is-consumer-products-industry/>
- Prieto, S. V., Ormazabal, M., Jaca, C., & Viles, E. (2018). Key elements in assessing circular economy implementation in small and medium-sized enterprises. *Business Strategy & the Environment*, 27(8), 1525–1534. <https://doi.org/10.1002/bse.2210>
- Rodriguez, R. W., Pomponi, F., Webster, K., & D'Amico, B. (2020). The future of the circular economy and the circular economy of the future. *Emerald Insight*. <https://doi.org/10.1108/bepam-07-2019-0063>
- Salguero-Puerta, L., Leyva-Díaz, J. C., Cortés-García, F. J., & Molina-Moreno, V. (2019). Sustainability indicators concerning waste management for implementation of the circular economy model on the University of Lome (Togo) campus. *International Journal of Environmental Research and Public Health*, 16(12), 2234. <https://doi.org/10.3390/ijerph16122234>

- Sehnm, S., Chiappetta Jabbour, C. J., Farias Pereira, S. C., & de Sousa Jabbour, A. B. L., (2019). Improving sustainable supply chains performance through operational excellence: Circular economy approach. *Resources, Conservation and Recycling*, 236-248. <https://doi.org/10.1016/j.resconrec.2019.05.021>
- Shehu, E., Papies, D., & Neslin, S. A. (2020). Free shipping promotions and product returns. *Journal of Marketing Research*, 57(4), 640-658. HYPERLINK "about:blank" <https://doi.org/10.1177/0022243720921812>
- Subramoniam, R., Sundin, E., Subramoniam, S., & Huisinigh, D. (2021). Riding the digital product life cycle waves towards a circular economy. *Sustainability*, 13(16), 8960. <http://doi.org/10.3390/su13168960>
- The World Counts. (2022). *The Consumer Economy*. <https://www.theworldcounts.com/challenges/consumption>
- United Nations. (n.d.). *Sustainability*. <https://www.un.org/en/academic-impact/sustainability>
- Weidner, K., Nakata, C., & Zhu, Z. (2021). Sustainable innovation and the triple-bottom-line: A market-based capabilities and stakeholder perspective. *Journal of Marketing Theory and Practice*, 29(2), 141-161. <https://doi.org/10.1080/10696679.2020.1798253>
- Wilson, J. P. (2015). The triple bottom line. *International Journal of Retail & Distribution Management*, 43(4), 432-447. <https://doi.org/10.1108/ijrdm-11-2013-0210>
- Young, J. (2022, February 18). *U.S. ecommerce grows 14.2% in 2021*. <https://www.digitalcommerce360.com/article/us-ecommerce-sales/>
- Zhang, Q., Chen, J., & Chen, B. (2021). Information strategy in a supply chain under asymmetric customer returns information. *Transportation Research. Part E, Logistics and Transportation Review*, 155, 102511. <https://doi.org/10.1016/j.tre.2021.102511>

Appendix

Interview Questions

Q#	Interview Questions	Framework/Literature Alignment	Probing Questions
1	What business challenges or lessons learned can you share related to transitioning companies to the circular economy?	Addresses the gap in practice by understanding what needs to change in a company to improve the adoption of the CE overall and overcome dominant practices.	What types of skills are needed to transform? How were specific metrics utilized? What would you consider to be best practices?
2	What business model components do companies need to have in place to transition to the circular economy more quickly?	Addresses general the problem related to the slow adoption of the CE to establish context and understand best practices overall	How was staff retrained to change to the new competencies? How was technology considered? How did the business reorganize to support the CE? What considerations to shareholders needed to be made? What support mechanisms (processes, resources, technologies, or capabilities) needed to be implemented?
3	What opportunities are there for consumer product companies to immediately start to implement CE principles in their business?	Address the gap in practice specific to the industry and continue the discussion on innovative strategies related to taking out waste and pollution, extending the life of products and ensure natural system restoration.	How do companies need to reconsider their supply chain and vendors? What new competencies or processes would need to be introduced? How do reverse logistics need to be adapted?

11:31 – 13:00	4	How must consumer product companies rethink the product returns process to make it circular?	Address the specific problem of moving to circular for the returns process, introduce innovation for product companies, and meet the TBL.	What considerations need to be made for consumer expectations? What considerations need to be made to manage shareholders? What changes need to be made in the supply chain and for product selection, or how products are sold?
13:01 – 15:30	5	With the focus on retaining the value of a product for as long as possible in the CE, what needs to be included in the product return process to achieve that goal?	Addresses how to utilize the circles in the framework to promote this activity centered on the circular economy.	How does a company maintain the value of the product for longer? What are the options related to the reuse and the redistribution of a product? What options are there for remanufacturing or refurbishing the product or its packaging? How was technology considered?
15:31 – 18:00	6	What new services or profit opportunities can be created by aligning the returns process with circular economy principles?	Value creation is a component of the CE, so this question is relevant to understanding how that can happen in the returns process to address profit leakage.	How were the profit opportunities identified? What cost cutting initiatives can be identified? Were all shareholders in agreement that they were positive for the company? If any investment was required, how long was the ROI?

18:01 – 20:30	7	What do leaders in consumer product companies need to have in order to make better decisions about how to handle products during the returns process to reduce the amount of waste?	This question addresses a critical barrier causing significant leakage and impacting the ability to achieve the TBL.	What processes, skills, or resources would need to be introduced into the business? What changes in leadership were made? What changes were made to third-party vendors or the types of products that are sold?
20:31 – 23:00	8	What activities do leaders need to consider to deal with the product returns challenges caused by product packaging?	Critical to understand how these barriers were addressed in a CE.	How was redesign incorporated? How should vendors be chosen? What must occur in reverse logistics operations to support this?
23:01 – 25:30	9	What would it take to successfully manage consumer expectations when implementing the circular economy?	Critical to understanding how consumer-specific barriers were addressed in a CE.	How do product companies balance retaining the customer with lenient returns but also adopting more sustainable business practices? What challenges have you faced managing customer expectations?
25:31 – 28:00	10	How would you be able to tell if the changes for the returns process moving to the CE worked?	Critical to understand success and establish repeatable measurements for leaders to use.	What were critical success factors measured? What technology or processes were used to capture data for measurements? How were the various shareholder's needs addressed in the measurements?

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