UNIVERSITÀ
DI PAVIA

Department of Economics and Management

Master Programme in International Business and Entrepreneurship

SUSTAINABLE BUSINESS MODEL TRANSFORMATION IN THE FASHION INDUSTRY : CASE STUDIES FROM TURKEY

Supervisor:

Prof.ssa Diala Kabbara

Ilayda Yesilkaya

Academic Year 2025-2026

Acknowledgments

I would like to dedicate my thesis to my family and loved ones, who have given meaning to my life and have always been by my side. The support, love, and trust they showed throughout this process were my greatest source of strength in every challenge I faced. I would also like to extend my gratitude to my friends who stood by me during this journey. The moments we shared together transformed this journey from merely an academic process into a much more meaningful and unforgettable experience for me.

I pay my respects to Mustafa Kemal Atatürk, who has always been a source of inspiration through his dedication to science and learning. Following the path he paved was one of the most important motivations guiding me throughout this process.

"Umutsuz durumlar yoktur, umutsuz insanlar vardır. Ben hiçbir zaman umudumu yitirmedim."

- Mustafa Kemal Ataturk

This process was not only an academic endeavor, but also a deeply personal journey of growth, self-discovery, and perseverance. It taught me to remain resilient in challenging moments, to do my best even when the path felt uncertain, and to keep learning throughout the process. I now look forward to new beginnings and to all that remains to be explored.

With love, Ilayda

Abstract

This study examines how international firms operating within the Turkish fashion industry are transforming their business models in line with sustainability. Increasing environmental pressures, regulatory frameworks, and demands arising from global value chains require firms to restructure the ways in which they create, deliver, and capture value. In this process, sustainability has evolved beyond operational improvements to become a driving force for transformation at the business model level. However, this transformation is not homogeneous; it varies depending on firm scale and position within the value chain.

The research is based on an exploratory multi-case study approach. Through semi-structured interviews with firms operating at different stages of the value chain and secondary data sources, the study analyzed how sustainability pressures are interpreted at the firm level and how they manifest in business model components. The findings indicate that sustainability has evolved from being merely a compliance requirement into a dynamic force driving business model transformation.

The scope of the transformation varies across firms. While multinational enterprises (MNEs) integrate sustainability in a more systematic and holistic manner, small and medium-sized enterprises (SMEs) approach the transformation in a more selective and phased manner. This suggests that the transformation has a hybrid character, relying on the adaptation of existing structures rather than a radical restructuring. The process is shaped not only by external pressures but also by firms' resources and strategic priorities.

This study, by examining the relationship between sustainability, business model transformation, and firm size, demonstrates that transformation is a context-sensitive and multi-layered process.

Abstract : Italiano

Questo studio esamina come le imprese internazionali operanti nel settore della moda in Turchia trasformano i propri modelli di business in risposta alle crescenti pressioni legate alla sostenibilità. Le pressioni ambientali, i quadri normativi e le richieste provenienti dalle catene globali del valore richiedono alle imprese di riorganizzare le modalità di creazione, erogazione e cattura del valore. In questo processo, la sostenibilità supera le logiche di semplice miglioramento operativo, configurandosi come un elemento che orienta la trasformazione a livello di modello di business. Tuttavia, tale trasformazione non è omogenea, ma varia in funzione della dimensione dell'impresa e della sua posizione nella catena del valore.

La ricerca si basa su un approccio qualitativo esplorativo di tipo multiple-case study. Attraverso interviste semi-strutturate condotte con imprese collocate in diverse fasi della catena del valore e l'analisi di fonti secondarie, viene esaminato come le pressioni legate alla sostenibilità vengano interpretate a livello aziendale e come si riflettano nelle componenti del modello di business. I risultati mostrano che la sostenibilità non rappresenta più solo un requisito di conformità, ma un fattore che guida la trasformazione del modello di business. L'ampiezza della trasformazione varia tra le imprese. Le multinazionali (MNEs) integrano la sostenibilità in modo più sistematico e olistico, mentre le piccole e medie imprese (SMEs) adottano approcci più selettivi e incrementali. Ciò indica che la trasformazione assume un carattere ibrido, basato sull'adattamento delle strutture esistenti piuttosto che su cambiamenti radicali. Il processo è influenzato non solo da pressioni esterne, ma anche dalle risorse e dalle priorità strategiche delle imprese.

Questo studio analizza congiuntamente sostenibilità, trasformazione del modello di business e dimensione d'impresa, mostrando come tale trasformazione debba essere interpretata come un processo contestuale e multilivello.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Introduction

In recent years, sustainability has increasingly become a core element shaping how firms operate across environmental, economic, and organizational dimensions. Growing environmental pressures, constraints on resource use, and shifting societal expectations are forcing companies to rethink not only their production processes but also the ways in which they create, deliver, and capture value. Within this transformation, the fashion industry presents a critical context due to both its high environmental impact and its intense connections with global production networks.

The fashion sector's multi-layered and geographically dispersed production structure makes sustainability pressures more visible and complex. In particular, regulations originating from the European Union, demands from international buyers, and shifting consumer expectations make it impossible for companies to rely solely on operational improvements. In this context, sustainability is evolving from an afterthought in production processes into a transformative dynamic that reshapes the fundamental components of the business model.

However, sustainability-driven transformation is not progressing uniformly across companies. Firms operating under similar pressures interpret these pressures in different ways and restructure their business models in different areas. This differentiation is closely linked to firm size, organizational capacity, and position within the value chain. While sustainability is integrated into the business model in a more systematic and holistic manner in large-scale firms, the transformation in small and medium-sized enterprises is more selective and concentrated in specific operational areas.

The existing literature offers significant contributions regarding sustainable business models, the circular economy, and firms' responses to sustainability pressures. However, these studies mostly address these areas independently; empirical studies examining the relationships

between business model transformation, circular entrepreneurship, and firm scale within a holistic framework remain limited. In particular, empirical findings regarding how different types of firms restructure their business models toward sustainability within specific sector and country contexts are not sufficiently developed.

This study addresses this gap within the context of the Turkish fashion industry. Turkey, which is strongly integrated with Europe-centered fashion value chains, presents a structure directly exposed to international sustainability pressures and hosting firms of varying scales within the same production ecosystem. With these characteristics, Turkey provides a suitable analytical framework for examining how firms operating under similar pressures but possessing different resources and value chain roles pursue distinct transformation pathways toward sustainability.

Within this framework, the study focuses on the following research question: *How are international firms transforming their business models toward sustainability within the context of the Turkish fashion industry?* This question aims to understand how sustainability pressures are internalized at the firm level and how these pressures reshape mechanisms for creating, delivering, and capturing value. By examining how firm scale shapes these processes, the study highlights the differentiation between multinational corporations and small and medium-sized enterprises.

The study adopts a qualitative research design of an exploratory nature, based on multiple case analyses. Semi-structured interviews conducted with firms operating at different stages of the value chain were analyzed in conjunction with secondary data sources. This approach aims to develop analytical insights into how transformation processes are shaped at the firm level, rather than producing statistical generalizations.

The chapters are organized as follows: the first chapter provides an overview of the evolution of the concept of sustainability and the ongoing debates in the field, while the second chapter presents a theoretical framework for sustainability-oriented business model transformation. The third chapter provides an outline of the characteristics of the Turkish fashion industry and the dynamics of sustainability. The fourth chapter presents the research design and methodology, while the fifth chapter presents the findings derived from the case studies and relates them back to the theoretical framework developed in the second chapter.

In order to contribute to sustainability-focused business model transformation, this study investigates differential paths that small and large firms may follow during the business model transformation process towards sustainability. It argues that such transformation is not a one-size fits all process, but rather a multi-layered and context-oriented transformation process, contingent upon firm size and organizational capacity and position within the value chain.

CHAPTER 1 : Sustainability and Global Transformation

1.1 The Evolution of Sustainability

The idea of sustainability has emerged as a framework aimed at striking a balance between economic growth, ecological limits, and social well-being. Rather than treating environmental protection, economic development, and social well-being as separate domains, sustainability brings these dimensions together within a single analytical perspective (Purvis et al., 2019).

The expansion of industrial production and the increasing complexity of global production networks have heightened concerns regarding resource use and environmental degradation. As production volumes have increased, the environmental consequences of economic activities have become more visible, leading to a broader awareness that economic growth cannot be considered independently of its ecological and social impacts (Holden et al., 2014).

At the international level, one of the fundamental definitions of sustainable development was established by the Brundtland Report. The report conceptualizes sustainable development as focusing on satisfying current needs without compromising the ability of future generations to meet their own needs. (WCED, 1987). Sustainability is typically conceptualized through three interconnected pillars that reflect environmental, economic, and social considerations.

In the years that followed, sustainability has become increasingly integrated into global governance frameworks. The adoption of the Sustainable Development Goals has provided a comprehensive policy agenda that addresses sustainability as a multidimensional issue encompassing environmental protection, economic systems, and social development (United Nations, 2015).

International policy frameworks also demonstrate that the approach to sustainability has taken on a systemic dimension. The United Nations Environment Programme emphasizes the need

to restructure production and resource use patterns alongside the reduction of environmental pressures (UNEP, 2011). Similarly, the OECD's green growth approach highlights the need to evaluate economic performance alongside the sustainable management of natural resources (OECD, 2011).

Collectively, these developments indicate that sustainability is no longer merely a set of environmental policies, but rather an agenda for structural transformation. Economic systems are expected to operate within ecological boundaries, and environmental and social dimensions are increasingly integrated into decision-making processes. This transformation has also extended to the firm level, where the inclusion of environmental and social impacts in corporate strategies has become increasingly important (Hart, 1995; Bansal, 2005).

1.2 Dimensions of Sustainability

Sustainability goes beyond purely economic assessments and requires that economic activities be considered alongside their environmental and social impacts. Economic activities take place within broader natural and social systems and generate various impacts through resource use, emissions, and working conditions. Therefore, sustainability cannot be assessed through a single performance indicator; rather, it requires a multidimensional perspective.

This perspective is typically structured around three interrelated core dimensions: environmental, economic, and social. The Triple Bottom Line approach highlights that in evaluating firm performance, not only financial results but also environmental and social impacts must be considered (Elkington, 1997). Addressing these dimensions together situates economic value creation within the framework of ecological limits and social expectations.

Global policy frameworks are increasingly reflecting this integrated approach. The Sustainable Development Goals present a comprehensive agenda that links economic

development with environmental protection and social well-being (United Nations, 2015). Similarly, the OECD's green growth approach emphasizes the need to align economic performance with the sustainable use of natural resources (OECD, 2011). These approaches clearly demonstrate that sustainability operates as an interconnected system rather than as separate, disconnected dimensions.

At the firm level, these three dimensions provide an analytical framework for understanding that economic activities generate value while simultaneously creating environmental and social impacts. Evaluating these dimensions separately enables the identification of areas where sustainability transformations emerge; addressing them collectively allows for a more holistic assessment of firm performance.

1.2.1 Environmental Dimension

Environmental sustainability aims to ensure that economic activities are brought into harmony with the limits of natural systems by reducing resource use, emissions, and ecological degradation. Production systems are directly linked to environmental outcomes through raw material extraction, energy consumption, and waste generation; consequently, industrial processes are viewed as one of the primary sources of pressure on ecosystems (Rockström et al., 2009).

Studies on planetary boundaries reveal that ecological systems have critical thresholds, and exceeding these thresholds can lead to large-scale environmental degradation (Rockström et al., 2009; Steffen et al., 2015). In this context, environmental sustainability requires a rethinking of how production and consumption systems are organized.

Environmental performance is typically assessed through key indicators such as energy use, carbon emissions, water consumption, and waste generation. Fossil fuel-based production

systems remain one of the primary sources of greenhouse gas emissions, further underscoring the importance of transitioning to energy-efficient processes and renewable energy sources (IPCC, 2022). Similarly, water use and waste management stand out as critical areas, particularly in resource-intensive sectors (UNEP, 2021).

Beyond performance indicators, environmental sustainability increasingly requires a life-cycle perspective. Environmental impacts arise across multiple stages, from raw material extraction through production, the use phase, and post-use processes. Therefore, addressing these impacts involves not only improving production efficiency but also reevaluating product design, material selection, and the post-use phase of products (Bocken et al., 2016).

At the same time, environmental sustainability is further strengthened by increasing regulatory pressures and stakeholder expectations. Climate policies, environmental standards, and reporting requirements have established a corporate framework that mandates companies to monitor and manage their environmental performance. This situation is leading to environmental factors moving beyond being an external constraint and becoming increasingly integrated into decision-making processes (Sachs et al., 2019).

1.2.2 Economic Dimension

Economic sustainability can be understood as the capacity of economic activities to create long-term value within environmental and social constraints. This approach goes beyond short-term profitability to focus on the continuity and stability of value creation systems (Dyllick & Hockerts, 2002).

Resource efficiency plays a central role in this context. The gradual depletion of natural resources and rising energy costs have made the efficient use of resources economically critical. Therefore, sustainable production is associated not only with reducing environmental

impacts but also with increasing efficiency by producing higher value using fewer resources (OECD, 2011).

Furthermore, economic sustainability is closely linked to the concept of resilience. Fluctuations in resource supply, energy prices, and supply chain disruptions have highlighted the importance of production systems capable of adapting to changing conditions. Economic resilience strengthens firms' capacity to maintain performance while responding to external pressures (Sachs, 2015).

Sustainability strategies are increasingly viewed not merely as a cost factor but as a source of competitive advantage. Aligning environmental and social goals with economically viable models enables firms to create long-term value while responding to regulatory and market pressures. In this context, sustainability contributes to both value creation and competitive positioning (Porter & Kramer, 2011).

1.2.3 Social Dimension

The social dimension of sustainability focuses on the societal impacts of economic activities and encompasses working conditions, equality, and broader societal effects. This approach emphasizes that production and value creation processes must support fair working conditions, workers' rights, and social welfare (Dyllick & Hockerts, 2002).

The expansion of global production networks has led to social sustainability issues becoming more visible, particularly in the context of labor standards. Companies operating in international supply chains are directly confronted with issues such as working hours, wages, occupational health and safety, and the right to organize. The core labor standards established by the International Labour Organization provide an important reference framework for aligning production systems with workers' rights (ILO, 2015).

Social sustainability is also closely linked to the management of inequalities within global value chains. The geographical dispersion of production has created disparities in working conditions and income distribution, placing social risks at the center of supply chain management. Consequently, the evaluation of production systems is conducted not only in terms of cost-effectiveness but also in terms of their social impacts (Barrientos et al., 2011).

Beyond working conditions, the relationship between economic activities and local communities also constitutes an important dimension. Job creation, social welfare, and the impacts of firms on local contexts are among the fundamental elements of sustainable development. For this reason, the strengthening of social welfare is regarded as one of the key components of long-term sustainability (Sachs, 2015).

1.3 From Linear to Circular Economy

Modern production and consumption systems have historically developed within a linear economic framework. This model is based on a sequential logic in which materials typically follow a one-way flow, losing their value after being used in production and following the consumption process. Within this structure, economic value is largely created at the point of sale, while post-consumption stages remain outside the value creation process.

During industrialization, the linear model became the dominant organizational structure of economic systems. Increasing production capacities, the rise of global trade, and growing product demand resulted in a solid foundation for a production mechanism based on constant natural resource extraction and increased production. Under this structure, value was generally considered to be created during the production and commercialization of new products (Ellen MacArthur Foundation, 2017).

However, growing concerns about resource scarcity and environmental degradation have

increasingly called into question the long-term sustainability of linear production systems. These developments have accelerated the shift toward alternative models that re-evaluate how resources are used and managed within economic systems. In this framework, circular economy approaches aim to slow down resource use by keeping products in use for longer periods and reducing the need for new inputs.

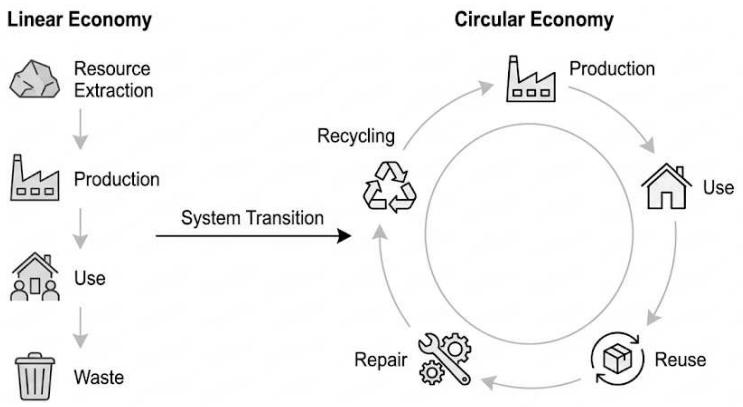
Unlike the linear model, circular approaches address value preservation through practices such as extending product lifespans, reuse, repair, and material recovery. This perspective expands the concept of value creation beyond the production and sales stages to encompass the various phases of the product life cycle. Thus, resource efficiency, material circulation, and the extension of product lifespans have become central elements in the organization of economic activities (Geissdoerfer et al., 2017).

This change is related not only to the constant improvement of production capabilities, but also to a fundamental reorganization of resources. Production systems are increasingly evolving toward closed-loop structures where materials are reintroduced into the production process. Approaches focused on waste reduction, optimizing resource use, and extending product lifecycles form the core components of this transformation (Ghisellini et al., 2016).

At the policy level, the circular economy is gaining increasing importance within international frameworks. In particular, the European Union's circular economy strategies aim to reduce waste generation and enhance resource efficiency across production and consumption systems (European Commission, 2020). These initiatives promote a systemic transition from resource-intensive linear structures toward more regenerative and closed-loop-based economic models.

To illustrate the structural differences between these two approaches, Figure 1.1 presents a schematic comparison of linear and circular production systems.

Figure 1.1 Linear and Circular Production Systems



Source: Author's elaboration based on Ghisellini et al. (2016) and Ellen MacArthur Foundation (2017)

The shift toward circular systems reflects a fundamental reconfiguration of how economic activities are organized. While linear systems rely on continuous resource extraction and high production volumes, circular models prioritize resource circulation, product longevity, and the reduction of material losses. This transformation highlights a broader reorientation of production systems toward more sustainable resource management practices.

1.4 Sustainability in the Fashion Industry

The fashion industry is one of the sectors most intensively examined in sustainability discussions due to the structure of its production processes and product characteristics. Textile and ready-to-wear production is organized through complex global value chains spanning multiple countries, from raw material extraction to final consumption. These processes are resource-intensive, placing the fashion industry at the center of global sustainability debates (Niinimäki et al., 2020).

The organization of the sector is closely linked to accelerating production and consumption cycles. The proliferation of fast fashion models enables companies to launch collections at increasingly shorter intervals, significantly reducing the time products remain on the market. This model relies on large-scale production, rapid inventory cycles, and cost-focused production strategies. As product lifecycles shorten and consumption rates increase, production systems built on speed and volume are further reinforced (Fletcher, 2014; Niinimäki et al., 2020).

These dynamics have significantly increased the environmental impact of the fashion industry. Textile production relies heavily on water, energy, and chemicals. Processes such as cotton production and textile dyeing result in high levels of resource consumption. Furthermore, producing synthetic fibers requires inputs dependent on fossil fuels, which further intensifies environmental pressure. Consequently, the fashion industry is considered one of the main contributors to resource depletion and emissions in global production systems (Bick et al., 2018; Niinimäki et al., 2020).

Environmental impacts are further exacerbated by the relatively short lifespan of fashion products. Rapid consumption cycles lead to an increase in textile waste, and a significant portion of the materials used cannot be reintroduced into production systems after consumption. Low recovery rates and limited material circulation highlight structural inefficiencies in linear production systems, underscoring the importance of a life-cycle approach to assessing sustainability in the sector (Ellen MacArthur Foundation, 2017).

These processes are also closely linked to changing consumption patterns. Although global clothing consumption has increased significantly, the average product lifespan has steadily decreased. This accelerates the loss of value after use and further reinforces systems that depend on continuous production growth (Niinimäki et al., 2020). As a result, sustainability

challenges in the fashion industry are not only limited to production processes, but also directly linked to consumption practices.

Beyond environmental concerns, the fashion industry faces significant social sustainability challenges. The distribution of production across different countries has brought issues such as working conditions, wage levels, and workplace safety to the forefront. The organization of production primarily through supplier networks operating under pressure to reduce costs and increase efficiency has made the management of working conditions a fundamental management issue in global value chains (Barrientos et al., 2011).

The complex structure of global supply chains demonstrates that social sustainability cannot be addressed solely at the local level. Implementing labor standards depends not only on production processes, but also on the governance mechanisms established by leading firms. In this context, social sustainability in the fashion industry is increasingly viewed as a function of supply chain organization and coordination structures (Locke, 2013).

In the face of environmental and social pressures, sustainability is becoming more important to policymakers and market actors. International regulatory frameworks, particularly those of the European Union, have developed strategies to increase resource efficiency, extend product lifespans, and reduce waste generation in the textile sector (European Commission, 2020). These developments have reinforced the necessity of rethinking production and consumption systems within the sector.

In this context, the circular economy model has become the primary approach guiding the transformation of the fashion industry. Strategies related to this model aim to extend product lifespans, improve material recovery, and sustain resource flows within economic systems over longer periods (Geissdoerfer et al., 2017). In the fashion industry, this concept is referred to as "circular fashion," which focuses on redesigning the product lifecycle from material

selection to post-use to minimize resource loss (Niinimäki et al., 2020). Activities such as repairing, reusing, selling, and recycling are developing strategies for extending the lifespan of products and minimizing the loss of resources.

For these reasons, the fashion industry is an ideal context in which to examine sustainability-focused transformations. Environmental and social pressures, regulatory developments, and shifting consumer expectations are compelling companies to rethink how they organize production systems and create value. Within this framework, sustainability challenges in the sector extend beyond operational improvements and are directly linked to broader-scale transformations in production structures and value creation processes.

1.5 Positioning the Research Problem

The increasingly central role of sustainability in global production systems is creating structural pressures that go beyond incremental improvements in production technology. Environmental constraints, developments in legislation and changing market expectations are driving companies to reassess how they organise their production processes and how they create, deliver and capture value.

In this context, sustainability-focused transformations are often associated with a large-scale shift from linear to circular production systems. Practices such as extending product lifespans, increasing resource efficiency and reintegrating materials into the economic system are creating new production logics that challenge traditional value creation models. Consequently, sustainability is increasingly viewed not merely as a matter of operational improvements; it has become directly linked to transformations occurring at the business model level.

The fashion industry provides an ideal empirical context for observing these transformations. The sector’s structure, which accelerates production and consumption cycles, brings

sustainability issues such as resource use, product lifespan and waste generation into sharper focus. These characteristics make the fashion industry an ideal field for examining how sustainability pressures translate into broader organisational and structural changes.

However, despite the growing interest in sustainability within the fashion sector, existing research has largely focused on large firms. Multinational companies have been extensively examined, particularly in the context of supply chain management, material sourcing and corporate-level sustainability strategies. In contrast, the emergence of sustainability-driven transformations in small and medium-sized enterprises has received relatively little attention.

Given that a significant proportion of firms in the fashion industry are small and medium-sized enterprises, this gap becomes even more pronounced. Due to their limited resources, increasing sensitivity to market pressures and more flexible organisational structures, these firms operate under different structural conditions. Consequently, sustainability-focused transformations are likely to follow different paths depending on the firm's size.

In addition to firm-level characteristics, the geographical context is also a significant dimension in understanding sustainability transformations. Whilst much of the existing literature focuses on firms operating in developed economies, relatively little attention has been paid to production contexts in developing countries. Yet a significant portion of global fashion production takes place within these contexts, where sustainability pressures are shaped by distinct institutional and economic conditions.

Turkey provides a particularly suitable context for examining these dynamics. As a key production hub within global fashion value chains, Turkey is home not only to large firms operating on an international scale but also to small and medium-sized enterprises integrated into global supply networks. This diversity provides a foundation for analysing how

sustainability-focused transformations emerge across different organisational scales.

Within this framework, this study examines how international fashion firms operating in Turkey adapt their business models in response to sustainability pressures, and how these adaptations differ according to firm size. The analysis focuses on the integration of sustainability into mechanisms for creating, delivering and capturing value, and how these processes are shaped by firm characteristics.

Understanding these dynamics requires a theoretical framework capable of explaining how firms restructure their business models in response to sustainability pressures. As a result, the following section discusses the key theoretical approaches for analysing sustainability-focused business model transformations.

1.6 Chapter Overview

The above discussion indicates that the concept of sustainability encompasses environmental, social, and economic aspects. The transition from a linear to a circular production system, in addition to environmental and social challenges, forces firms to reconsider not only their operational methods but also the logic behind value creation and capture. In this respect, sustainability has begun to evolve from process-level improvements into a fundamental driver of business model transformation. To understand this shift in sustainability, it is important to shift the analysis from the generic concept of sustainability to a more specific analysis of business model transformation in the context of sustainability challenges. This shift forms the basis of the theoretical framework presented in the following section. Based on this framework, the key theories of sustainability-driven business model transformation are presented.

CHAPTER 2 : Theoretical Framework: Sustainability Driven Business Model Transformation

The business model perspective provides an essential conceptual basis for analyzing how firms structure value creation processes, formulate value propositions, and generate economic outcomes through specific mechanisms. In the literature, business models are commonly understood through the ways firms create, deliver, and appropriate value (Teece, 2010). The integration of sustainability objectives into this structure requires firms not only to modify operational processes but also to reconsider the core mechanisms that shape the architecture of the business model.

Sustainable business models combine economic aims with environmental and social objectives within the same value generation structure. In the fashion industry, this integration often involves changes in material sourcing, such as the adoption of organic cotton, recycled fibres, and alternative materials, as well as the emergence of practices including repair services, resale platforms, and product take-back systems. These transformations reflect broader changes in the organization of production systems, the use of resources, and the increasing importance of transparency and traceability within supply chains. In this sense, sustainability influences not only production activities but also the underlying logic through which value is created and delivered (Schaltegger et al., 2016; Geissdoerfer et al., 2018).

From this perspective, sustainability-related change often takes place through the step-by-step redesign of existing business model structures. Firms develop new value propositions, redesign production and supply processes, and establish alternative mechanisms for generating economic value. This transformation extends beyond incremental adjustments to products or processes and involves more fundamental changes that reshape the relationships between value creation, value delivery, and value capture.

The circular entrepreneurship literature suggests that sustainable business model transformation may emerge from different starting points. Some firms are founded with sustainability as a core principle, and this shapes their approach to resource use, material choices, and product longevity from the beginning. In such cases, sustainability constitutes a foundational element of the business model (Muñoz & Cohen, 2018). In contrast, other firms undergo a transition process in which existing business models are progressively restructured to incorporate sustainability objectives. This involves the reorganization of production systems, supply chain relationships, and organizational processes over time.

The implementation of sustainability-driven business model transformation may also vary according to firm scale. Differences in resource availability, organizational capacity, and position in the global value chain imply unique transformation routes for small and medium-sized enterprises (SMEs) and multinational corporations (MNEs). Small and medium-sized enterprises can directly develop a sustainability business model due to their flexibility, whereas large multinational corporations tend to incorporate sustainability into their business model by adapting and reconfiguring their large-scale production systems.

Therefore, it is important to recognize that sustainability-driven business model transformation requires moving beyond analyzing environmental practices and exploring business model architecture transformation, including the influence of organizational characteristics.

2.1 Sustainable Business Models

Business models offer an analytical framework through which to understand how firms organize value creation activities, interact with stakeholders, and generate economic outcomes via specific mechanisms (Teece, 2010). Rather than focusing solely on production processes, the business model perspective captures how firms utilize resources, define value

propositions, and transform value into economic outputs. Thus, the concept of the business model offers a central lens through which to examine firms' overall economic activities.

Incorporating sustainability into business models requires changes that go beyond simple operational improvements. Achieving environmental goals, enhancing resource efficiency, and redesigning production systems often necessitate alterations to the fundamental mechanisms that constitute business model architectures. In this context, sustainability has evolved from an external consideration to an integral component of business model structure and operation (Schaltegger et al., 2016).

What distinguishes sustainable business models is their ability to combine environmental and social objectives with economic value creation. This approach requires firms to reconsider resource use, improve material efficiency, and develop mechanisms that reduce environmental impact. Therefore, sustainability affects not only production systems, but also the core logic through which value is created within firms (Bocken et al., 2014).

A common way to analyze business models is by examining how firms create value, how they deliver it, and how they generate returns from it. (Geissdoerfer et al., 2018). Integrating sustainability objectives requires reconfiguring each of these components.

Value creation addresses how firms organize their production systems and activities. Sustainable business models redesign these activities to reduce environmental impact and enhance resource efficiency. This includes adopting sustainable and recyclable materials, improving energy efficiency, and reducing waste generation. These changes often necessitate a reevaluation of product design and production systems, especially in material-intensive industries where resource usage is integral to production processes (Bocken et al., 2014). Value creation extends beyond production to decisions related to material selection, product design, and production technologies, which increasingly incorporate principles that support

circular resource use.

Value delivery concerns how firms deliver products and services to customers and organize relationships with stakeholders. In sustainable business models, these processes are restructured to enhance transparency and traceability across the value chain, integrate sustainability considerations into product design, and account for the entire product life cycle. As a result, sustainability becomes embedded not only in production, but also in distribution, communication, and stakeholder coordination processes. In industries organized through global value chains, supply chain management plays a critical role as sustainability practices extend beyond firm boundaries to include supplier relations, production standards, and governance mechanisms (Geissdoerfer et al., 2018).

Value capture concerns the ways firms convert their activities and offerings into financial returns.While traditional business models primarily rely on product sales, sustainable business models increasingly incorporate alternative revenue structures. Key approaches to sustainable value capture include extending product lifetimes, enabling reuse and repair, and developing resale systems. These models support longer product use phases while reducing resource consumption (Schaltegger et al., 2016). In addition, service-based models such as product-service systems, sharing economy practices, and maintenance services allow firms to generate economic value while aligning with sustainability objectives.

Taken together, sustainable business models represent a transformation that goes beyond the adoption of isolated environmental practices. The redesign of production systems, the reorganization of supply chains, and the restructuring of value generation mechanisms indicate a deeper reconfiguration of how firms operate. Sustainability thus emerges as a transformative force that directly shapes firms' strategic decisions and organizational structures.

2.2 Business Model Transformation toward Sustainability

Increasing environmental and social pressures across industries are requiring firms to reconsider not only their production processes but also the broader structure of their economic activities. The integration of sustainability objectives into firm strategies entails changes that extend beyond incremental improvements, positioning sustainability not as an operational adjustment but as a strategic framework that may necessitate the transformation of business models.

Business model transformation involves the reconfiguration of the mechanisms through which firms create and capture value. Business models are commonly understood as systems that explain how firms generate value and convert it into economic outputs (Teece, 2010). The integration of sustainability objectives therefore affects not only production activities but also the ways in which value creation is organized. Changes at the business model level often involve broader restructuring processes, extending from production systems to value chain relationships.

Within this context, sustainability-oriented transformations are closely linked to business model innovation. Business model innovation involves altering how firms organize and renew the processes through which they create and obtain value. Traditionally, business models have largely been based on selling products. However, integrating sustainability objectives into business practices forces firms to reconsider how value is created. This could result in new value propositions, production processes, and alternative forms of economic value creation (Bocken et al., 2014).

These changes are not limited to technological developments but also involve shifts in firms' strategic orientation. For example, firms may redesign products to be environmentally friendly, develop alternative production processes, and create different value propositions for

customers. Thus, business model innovation is closely tied to the integration of sustainability objectives into firms' practices (Geissdoerfer et al., 2018).

Furthermore, business model transformation is related to organizational restructuring. For example, integrating sustainability into business strategies may require rethinking production systems and value chain relationships. This could entail reorganizing production processes, restructuring relations with suppliers, and adapting internal business practices to align with sustainability objectives (Schaltegger et al., 2016).

These transformations may also be related to developing new organizational capabilities. For example, firms may need to acquire knowledge and skills related to production planning, supplier relations, and strategic decision-making. Thus, these transformations are related not only to technological development, but also to organizational learning and development.

Sustainability-driven business model transformation also affects the mechanisms through which economic value is captured. While traditional models rely predominantly on product sales, sustainability-oriented models often introduce alternative forms of value generation. These include service-based models, strategies aimed at extending product lifetimes, and practices aligned with circular economy principles. Such approaches enable firms to reorganize revenue structures while reducing resource consumption.

These changes can also be linked to the broader idea of sustainability transitions. The idea of sustainability transition points to broader systemic change in economic activities, where environmental and social concerns become part of how industries and firms evolve. In this process, firms not only improve existing operations but also reconsider how value is generated and how competitive advantage is achieved, leading to shifts in strategic orientation

and innovation processes (Geissdoerfer et al., 2018).

Overall, sustainability-driven business model transformation represents a comprehensive reconfiguration of how firms organize their economic activities. Value creation processes, organizational structures, and value capture mechanisms are reshaped in line with sustainability objectives. This transformation enables firms to reposition their operations within a broader sustainability-oriented framework, increasingly aligned with circular economy principles that emphasize resource efficiency, material circulation, and regenerative value creation.

2.3 Circular Entrepreneurship and Sustainability Pathways

The emergence of sustainability-oriented business models follows different developmental trajectories across firms. Founding conditions, organizational structures, and strategic orientations play a central role in shaping how sustainability strategies evolve within organizations. For this reason, the development of sustainability-oriented business models is more accurately understood not as a single transformation process, but as a set of organizational pathways emerging from different starting points.

Strategic orientations adopted at the founding stage can directly influence firms' approaches to sustainability. Some firms are established with the explicit objective of generating environmental and social value. In such cases, production systems, material choices, and value creation mechanisms are designed in alignment with sustainability principles from the outset. Sustainability therefore becomes an integral component of business model architecture rather than an additional strategic layer. This perspective is widely discussed within the sustainable entrepreneurship literature, which emphasizes how sustainability objectives can be embedded in the foundational logic of the firm (Hockerts & Wüstenhagen, 2010).

In many of these ventures, circular economy thinking is embedded directly into the design of the business model. Within the fashion industry, circular entrepreneurial models frequently focus on extending product lifecycles through practices such as repair services, clothing rental, resale platforms, and textile recycling initiatives. Approaches aimed at prolonging product use, recirculating materials within production systems, and reducing resource consumption represent core characteristics of this model. By integrating circular value creation mechanisms into business model architecture, firms move away from linear resource-based structures. For this reason, sustainability-oriented entrepreneurship is frequently conceptualized within the framework of circular entrepreneurship (Schaltegger et al., 2016; Lüdeke-Freund et al., 2018).

In contrast, many firms develop sustainability strategies through the transformation of existing business models. Particularly in established organizations, sustainability often emerges through incremental adjustments, such as reorganizing production systems, restructuring supply chain relationships, and reconsidering material use. According to Bocken et al. (2014), firms integrate sustainability objectives by improving resource efficiency, redesigning production processes, and developing new mechanisms of value creation.

Over time, these adjustments may lead to more fundamental changes in the logic of value creation. The redesign of production systems, the adoption of sustainable supply chain practices, and the use of alternative materials enable firms to reorganize their economic activities in new ways. These processes frequently extend beyond operational improvements and result in broader transformations within business model structures (Geissdoerfer et al., 2018).

As a result, a clear distinction emerges between firms that are founded on sustainability

principles and those that develop sustainability strategies through the transformation of existing models. Organizational capacity, strategic flexibility, and resource configurations play a critical role in shaping these trajectories. These differences provide an important conceptual basis for analyzing the development of sustainability-oriented business models across firms.

Within this framework, the development of such models can be understood through two main organizational pathways. The first pathway focuses on circular entrepreneurship, in which ventures are established based directly on sustainability principles. The second pathway examines sustainability-oriented transformation processes within established firms. Distinguishing between these pathways provides a structured analytical lens through which to understand how sustainability strategies evolve in different organizational contexts.

2.3.1 Born Sustainable Firms

Some firms establish their activities on sustainability principles from the outset. In the fashion sector, a number of emerging brands have adopted this approach by designing business models based on sustainable materials, slow fashion principles, and circular production strategies from the moment of their founding. In such ventures, the objective of generating environmental and social value constitutes a central element shaping the founding logic of the organization.

Production systems, material choices, and value creation mechanisms are therefore designed in direct alignment with sustainability objectives. Sustainability is not introduced as a later-stage strategy but is embedded within the core architecture of the business model from the beginning (Hockerts & Wüstenhagen, 2010).

The emergence of such ventures is closely linked to sustainability-oriented entrepreneurial

motivations. Environmental challenges are often perceived not only as constraints but also as opportunities for new forms of value creation. From this perspective, sustainability-oriented ventures develop business models that aim to generate economic value while simultaneously addressing environmental problems. The literature on environmental entrepreneurship highlights that such ventures frequently respond to market failures related to environmental issues through innovative business solutions (Dean & McMullen, 2007).

Designing business models around sustainability principles from the outset allows for fundamentally different configurations of value creation. Practices such as extending product lifecycles, promoting material reuse, and reducing resource consumption become central elements of production systems. Unlike traditional linear models, these approaches aim to maintain materials and products in circulation within the economic system for extended periods. Research on sustainable business models shows that such practices frequently rely on mechanisms such as reuse, repair, and recycling to improve resource efficiency (Bocken et al., 2014).

Within this context, sustainability-oriented ventures are closely associated with circular entrepreneurship. Circular entrepreneurship can be understood as entrepreneurial activity that redesigns resource flows in ways that reduce waste and environmental pressure. In these firms, circular value creation mechanisms occupy a central role in shaping production systems and organizing economic activities in more sustainable ways (Schaltegger et al., 2016).

These firms therefore represent a pathway in which sustainability is embedded from the moment of organizational founding. Sustainability does not emerge through the transformation of an existing model but is instead constitutive of business model design from the outset. Born-sustainable firms thus represent an important organizational category within sustainability-oriented business model development.

Such ventures are often associated with smaller and more flexible organizational structures. This flexibility can facilitate the rapid adoption of new materials, production methods, and sustainability-driven innovations, enabling sustainability principles to be integrated into business models at early stages of firm development.

2.3.2 Sustainability Transition in Established Firms

Transformation oriented toward sustainability does not occur under uniform initial conditions across firms. While some organizations are founded on sustainability principles, many others integrate these objectives into their activities at a later stage. This is particularly evident in firms with established production systems and long-standing business models. In such contexts, sustainability rarely involves replacing existing models entirely. Instead, it typically unfolds through the gradual restructuring of existing systems.

In established firms, sustainability transitions are closely associated with reconfiguring existing value creation, production, and distribution mechanisms. Because business models are embedded within specific production technologies, supply chain structures, and organizational arrangements, integrating sustainability objectives requires a process of incremental transformation. Sustainability is therefore incorporated through the adaptation and reorganization of existing systems rather than through entirely new model creation.

Research on business model transformation indicates that incumbent firms often implement sustainability by modifying existing components of their business models. This includes redefining value propositions in line with sustainability objectives, reorganizing production processes to reduce environmental impacts, and restructuring supply chain relationships according to sustainability standards (Boons & Lüdeke-Freund, 2013). During this process, firms typically retain core organizational structures while embedding sustainability into key business model elements.

Sustainability transitions in established firms also involve the reorganization of production systems and supply chains. Large firms operating within global value chains frequently extend sustainability standards beyond their own operations to supplier networks. This dynamic contributes to the diffusion of sustainability practices across global production systems. Firms positioned within these networks can play a significant role in shaping sustainability outcomes by embedding standards within supply chain governance mechanisms (Gereffi & Lee, 2016).

From this perspective, sustainability-oriented transformation in incumbent firms is best understood as a gradual restructuring process. The modification of existing business model components and the development of new configurations enable firms to integrate sustainability objectives over time. Empirical studies show that such transformations often proceed incrementally, with organizational structures being progressively aligned with sustainability goals (Bocken et al., 2014).

For this reason, sustainability-oriented transformation is not limited to newly established ventures. In many cases, sustainability evolves through the reconfiguration of long-standing business models within established firms. This demonstrates that sustainable business model transformation can emerge from different starting points and follow distinct organizational pathways depending on firm characteristics.

2.4 Sustainability Dimensions in Business Model Transformation

Sustainability-driven business model transformation is not limited to strategic or organizational changes. As firms integrate sustainability objectives into their activities, they also reorganize production systems, the resources they use, and the flows of materials within these systems. For this reason, sustainable business model transformation is closely linked to the way production processes are structured and how resources are managed within these

processes. Transformations at the business model level therefore become visible through operational practices aimed at reducing the environmental impacts of production systems.

Energy use is one of the most critical aspects of sustainable production practices. Most industries have production systems that require large amounts of energy; therefore, improving the efficiency of energy use is essential to reducing environmental impact. Today, firms are reorganizing their production technologies to develop systems that use less energy. These improvements benefit the environment and improve the economic efficiency of production processes (Schaltegger et al., 2016).

Water use is also a critical aspect of sustainable production practices. Most industries, especially resource-based ones, consider water consumption to be one of the most important areas of concern regarding their environmental impact. Consequently, firms develop practices to improve the efficiency with which they use water within their production systems. They do this by reorganizing production techniques and developing systems that allow for the reuse of water within their production cycles.

Material use is also a critical aspect of making production systems sustainable. Conventional linear production systems tend to discard materials used in production as waste at the end of their life cycle. Conversely, sustainability-oriented approaches emphasize retaining these materials within production systems for longer periods. Consequently, firms develop practices to improve the efficiency of material use within their production systems by reusing and recycling such materials (Murray et al., 2017).

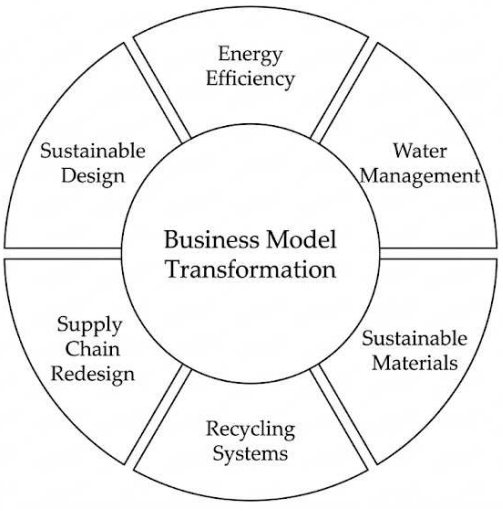
These transformations extend beyond internal production processes. Supply chains and production networks are also reorganized in line with sustainability objectives. Firms operating within global production systems increasingly integrate sustainability standards into their supply chain relationships. This process facilitates the diffusion of sustainability

practices beyond individual firms and contributes to the restructuring of broader production networks (Gereffi & Lee, 2016).

Within this framework, sustainability-driven business model transformation can be observed across multiple operational dimensions of production systems. Energy efficiency, water management, material circularity, and waste reduction represent key areas through which firms implement sustainability objectives in practice. These dimensions provide a more concrete understanding of how business model transformation translates into operational change.

These operational dimensions are summarized in Figure 2.1, which illustrates how sustainability objectives are translated into specific areas of intervention within production systems.

Figure 2.1 Operational Dimensions of Sustainability Driven Business Model Transformation



Source:Author's elaboration based on Boons and Lüdeke-Freund (2013), Bocken et al. (2014), Schaltegger et al. (2016) and Gereffi and Lee (2016).

2.5 Firm Size and Sustainability Transformation

Sustainability-driven business model transformation does not unfold uniformly across firms. Differences in resource availability, organizational structures, and market scope shape both the extent and the direction of these transformations. As a result, the way sustainability is integrated into business model architectures is closely conditioned by firm size.

Small and medium-sized enterprises (SMEs), despite operating under more limited financial and organizational resources, often exhibit greater flexibility in decision-making processes. This flexibility enables the development of sustainability initiatives through entrepreneurial experimentation, niche-oriented strategies, and adaptive production approaches. In many SMEs, sustainability emerges through bottom-up processes, where environmental and social value creation is integrated selectively into specific components of the business model. In particular, sustainability-oriented ventures frequently embed these objectives directly into their business model logic from early stages, reflecting an entrepreneurial approach to sustainability (Hockerts & Wüstenhagen, 2010).

In contrast, multinational enterprises (MNEs) operate with more extensive financial resources, advanced technological infrastructures, and highly coordinated global supply chains.In such firms, sustainability transformation is more likely to occur through organizational reconfiguration. Rather than the result of localized practices, sustainability is more commonly the result of formal strategies and procedures. Larger firms have the advantage of extending their sustainability practices beyond their own enterprise to their entire network of suppliers and the global production system. This extends the scope of their sustainability practices to their entire value chain (Gereffi & Lee, 2016). Firm size also determines the implementation process of sustainability strategies. While SMEs usually adopt experimentation and incrementalism by leveraging their flexibility, large firms commonly implement sustainability

strategies through institutionalized governance structures, formal decision-making processes, and strategies (Hahn & Kühnen, 2013). These factors also determine the scope and depth of transformation within the entire business model. Overall, patterns and trends in sustainability strategy implementation suggest that business model transformation in response to sustainability challenges is not homogeneous and is more often conditioned by firm size. SMEs and MNEs have their own patterns and processes of transformation in terms of resource configuration and global production networks. While SMEs typically implement sustainability strategies selectively and in components, MNEs usually develop highly coordinated, comprehensive transformation processes. Firm size is a structuring condition for the entire process of sustainability-driven business model transformation. The comparative differences between SMEs and MNEs, summarized in Table 2.1, provide a framework for understanding how sustainability is embedded in business models through distinct organizational and strategic logics.

Table 2.1 Sustainability Transformation Across Firm Types

Dimension	SMEs	MNEs
Resource structure	Limited financial and organizational resources	Extensive financial, technological and managerial resources
Organizational structure	Flexible and entrepreneurial	Highly structured and formalized
Sustainability pathway	Often integrated through entrepreneurial initiatives or niche strategies	Frequently implemented through corporate sustainability strategies
Innovation approach	Experimentation and niche innovation	Large-scale innovation programs and corporate sustainability initiatives
Scope of impact	Firm-level initiatives or niche markets	System-wide influence across global value chains
Governance mechanisms	Informal decision processes and owner-driven strategies	Formal governance systems and sustainability reporting structures

Source:Author's elaboration based on Hockerts and Wüstenhagen (2010), Hahn and Kühnen (2013) and Gereffi and Lee (2016).

2.6 Theoretical Synthesis

Sustainability-driven business model transformation can be understood as a multidimensional process involving the reconfiguration of value creation, value delivery, and value capture mechanisms. Within this perspective, sustainability extends beyond operational practices and reflects a broader transformation that reshapes both the underlying logic of business models and firms' strategic orientations.

This transformation does not emerge from a single organizational trajectory. While some firms are established directly on sustainability principles, others integrate sustainability through the gradual reconfiguration of existing business model components and organizational structures. As a result, sustainability-driven business model transformation develops through multiple pathways shaped by different organizational starting points.

Firm size plays an important role in shaping how these transformations occur. Small and medium-sized enterprises and multinational corporations operate within distinct resource configurations, organizational capacities, and positions in global production networks. These differences shape how sustainability is interpreted, internalized, and embedded within business model structures, leading to variations in the depth and form of transformation across firms.

Despite these differences, existing literature has largely examined sustainability-driven business model transformation without systematically comparing how such transformations vary across firm sizes. In particular, within globally interconnected industries such as the fashion sector, the ways in which sustainability-driven business model transformation differs between SMEs and MNEs remain insufficiently explored.

This study addresses this gap by examining sustainability-driven business model transformation through a comparative lens. By focusing on how firms operating at different scales integrate sustainability into their business model architectures, the analysis aims to contribute to a more differentiated understanding of how sustainability transformations unfold across organizational contexts.

CHAPTER 3 : The Fashion Industry Context in Turkey

The fashion and textile industry represents one of the most significant global production systems, characterised by large-scale output, complex supply chain structures, and intensive resource use. These structural characteristics have positioned the sector at the centre of sustainability debates, as environmental impacts, production dynamics, and consumption patterns have become increasingly interconnected within global value chains.

Within this global production system, Turkey has emerged as a key manufacturing hub in textile and apparel production. Strong industrial capacity, well-developed supplier networks, and geographical proximity to European markets have enabled the country to integrate deeply into international fashion supply chains. This position has made Turkey a strategic production partner, particularly for firms operating in fast-paced and demand-sensitive market environments.

At the same time, increasing sustainability pressures are reshaping the conditions under which production systems operate. Environmental regulations, evolving market expectations, and supply chain requirements are gradually transforming how value is created and organised within the fashion industry. These developments are particularly visible in production-oriented contexts such as Turkey, where firms are closely embedded in international supply networks and are directly exposed to sustainability-related demands.

Against this background, this chapter focuses on the Turkish fashion industry by examining its structural characteristics, its position within global value chains, and the sustainability dynamics shaping production systems.

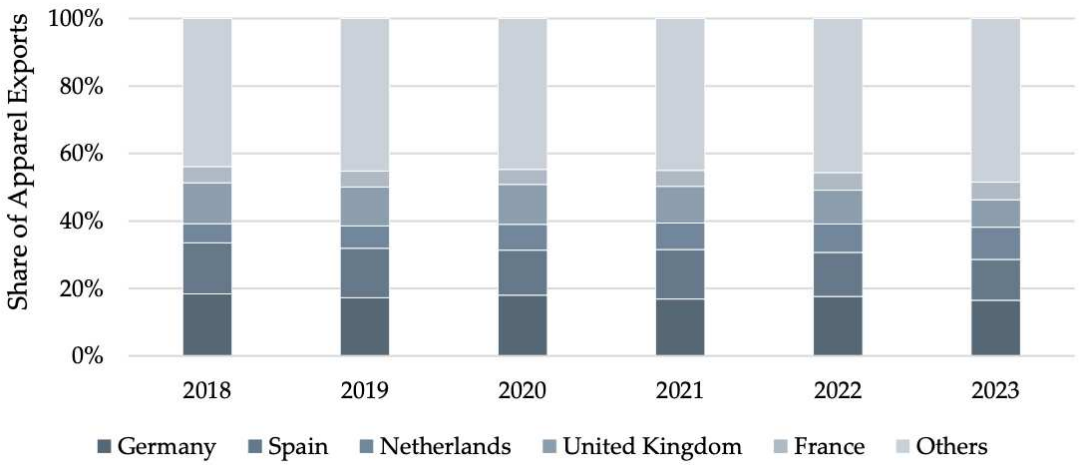
3.1 The Fashion Industry in Turkey

The fashion industry constitutes one of the largest global production and trade systems, operating through extensive international value chains that connect multiple countries and provide employment to millions of people worldwide. The global market size of the fashion industry has reached approximately 1.7 trillion dollars, highlighting its significant role within international trade and industrial production (McKinsey & Company, 2023).

Within this global system, Turkey has emerged as a key production hub in textile and apparel manufacturing. Over time, the country has strengthened its position within international fashion supply chains due to its advanced manufacturing infrastructure, well-developed industrial base, and geographical proximity to European markets. This positioning enables Turkish manufacturers to respond rapidly to market demand, making the country a strategic production partner for international fashion brands.

From the perspective of the Turkish economy, the textile and apparel sector represents one of the most important export-oriented industries. In recent years, total exports have reached approximately 30–33 billion dollars, placing Turkey among the leading global exporters in the sector (Turkish Exporters Assembly, 2023). A significant share of these exports is directed toward European Union markets, particularly Germany, Spain, the Netherlands, and Italy, reflecting the country's strong integration into European fashion supply chains (Istanbul Apparel Exporters' Association, 2023). The geographical distribution of Turkey's apparel export markets is presented in Figure 3.1

Figure 3.1: Turkey's Apparel Export Destinations (2018–2023)



Source: UN Comtrade Database

Figure 3.1 shows that Turkey's apparel exports are strongly concentrated in European markets, with Germany, Spain, the Netherlands, the United Kingdom, and France consistently representing the largest destinations. This pattern highlights Turkey's deep integration into European fashion supply chains and confirms the importance of geographical proximity and logistics advantages in shaping the country's export structure.

Beyond its trade performance, the sector represents one of the core components of Turkey's manufacturing industry in terms of employment and production capacity. Textile and apparel production provides employment to approximately one million people, while around 60,000 firms operate within the sector, the majority of which are small and medium-sized enterprises (Turkish Statistical Institute, 2023; TOBB, 2023). This highlights that the industry constitutes one of the largest production ecosystems within Turkey's manufacturing sector.

In order to present the economic scale and key structural characteristics of the Turkish textile and apparel industry more clearly, Table 3.1 summarises the main industry indicators of the sector.

Table 3.1 Key Indicators of the Turkish Textile and Apparel Industry (2023)

Indicator	Value
Total exports of Turkey (context indicator)	255.8 billion USD
Apparel exports of Turkey	20.3 billion USD
Apparel exports to the EU from Turkey	13.2 billion USD
EU share in Turkey's total apparel exports	67.1%
Turkey's share in EU apparel imports	approximately 10–12%
Leading apparel export markets	Germany, Spain, Netherlands, UK, France
Global ranking in apparel exports	6th largest exporter worldwide
Share of Turkey in world apparel exports	3.3%
Employment in textile and apparel manufacturing ecosystem	approximately 1 million employees

Source: Turkish Exporters Assembly (TİM, 2023); Istanbul Apparel Exporters' Association (İHKİB, 2023); Turkish Statistical Institute (TÜİK, 2023); Euratex (2023)

The indicators presented in Table 3.1 demonstrate that Turkey's textile and apparel sector holds a significant position both within the national economy and in international trade. Export volume, strong commercial integration with European Union markets, and Turkey's share in global apparel exports highlight the country's strategic role within international fashion production networks. The recent trade performance of Turkey's textile and apparel sector is illustrated in Figure 3.2.

Figure 3.2 Turkey's Textile and Apparel Trade (2018–2023)

Source: UN Comtrade Database.

Figure 3.2 illustrates the export-oriented structure of Turkey's textile and apparel sector over time. Apparel exports consistently exceed imports, confirming the sector's importance within Turkey's external trade structure, while textile exports remain substantial, reflecting strong production capacity in upstream manufacturing activities.

From a structural perspective, the Turkish fashion industry operates within a multi-stage production system. Textile production represents upstream activities, including yarn manufacturing, fabric production, and processing stages such as dyeing and finishing. Apparel production constitutes downstream activities in which these materials are transformed into final consumer products. This structure allows production processes to be distributed across specialised firms while maintaining strong interconnections within the industry.

In addition, textile production in Turkey has increasingly diversified toward advanced segments such as technical and functional textiles, extending its role beyond fashion and into broader industrial applications (Textile Exchange, 2023).

From a geographical perspective, textile and apparel production is concentrated within industrial clusters located in cities such as Istanbul, Bursa, Denizli, and Gaziantep. These clusters facilitate strong supplier networks, enhance coordination among firms, and enable rapid production cycles. As a result, Turkey is positioned not only as a country with substantial production capacity but also as a flexible and responsive production system within global fashion value chains.

3.2 Structure of the Turkish Fashion Industry

The Turkish fashion industry is characterised not only by its production scale but also by a complex and multi-layered production organisation. Textile and apparel manufacturing operates within an extensive network in which different types of firms specialise in distinct stages of the production process. Understanding this structure requires examining both the production roles of firms and their positions within the broader supply chain. Production in the fashion industry is typically organised through fragmented value chains distributed across specialised firms (Gereffi & Frederick, 2010).

Fashion production takes place within a multi-stage value chain extending from raw material sourcing to the delivery of final products to international markets. The process begins with raw materials such as cotton and synthetic fibres, followed by yarn production, fabric manufacturing, and textile processing activities including dyeing and finishing. These upstream stages are then followed by apparel manufacturing, where fabrics are transformed into final consumer products. This structure creates strong interdependencies between textile and apparel production while distributing production capacity across different segments of the industry (OECD, 2020).

Within this system, textile manufacturing represents one of the strongest segments of the Turkish fashion industry. A large number of firms are engaged in yarn production, woven and

knitted fabric manufacturing, and textile processing activities. These firms supply both domestic markets and international fashion brands, positioning Turkish textile producers as key actors within global supply networks (Euratex, 2023).

Apparel manufacturing constitutes the downstream stage of production, where final products are developed through design and assembly processes. In Turkey, this stage operates predominantly within an export-oriented production model, with many firms producing for international brands. Apparel production is strongly integrated into European markets, reinforcing Turkey's role within global fashion production networks (Istanbul Apparel Exporters' Association, 2023).

A defining characteristic of the Turkish fashion industry is its reliance on flexible production networks largely composed of small and medium-sized enterprises. Many firms specialise in specific stages of production, and strong supplier relationships link these firms within a broader network. Subcontracting and contract manufacturing are widespread, allowing production processes to be distributed across multiple actors. This organisational structure enables rapid response to international demand and supports short lead times (Tokatlı, 2008).

This network-based production model also underpins Turkey's competitiveness within global fashion supply chains. Geographical proximity to European markets, combined with flexible manufacturing capabilities and developed logistics infrastructure, allows Turkish firms to operate effectively in fast-paced production environments. As a result, Turkey is positioned as a key supplier, particularly in production models requiring speed, flexibility, and short delivery times (McKinsey & Company, 2023).

In order to illustrate the organisation of this production system more clearly, the main supply chain structure of the Turkish fashion industry is presented in Figure 3.3

Figure 3.3 Structure of the Turkish Fashion Supply Chain

Source: Author's elaboration based on industry structure of the Turkish textile and apparel sector

As shown in Figure 3.3, production is organised through interconnected stages, beginning with raw material sourcing and extending through textile production, fabric processing, and apparel manufacturing. Following these stages, products are delivered to international brands or global buyers and distributed across international markets. This confirms that production in Turkey is deeply embedded within global value chains.

This structure creates a clear division of labour among firms. Textile producers typically specialise in intermediate inputs such as yarn and fabric, while apparel manufacturers focus on transforming these materials into final products. These stages are often carried out by different firms operating within tightly interconnected supplier networks, indicating that production is organised not through vertically integrated firms but through a distributed manufacturing system dominated by SMEs.

The flexibility of this production organisation represents a key competitive advantage within international markets. Rapid production capacity and proximity to European demand centres enable firms to respond efficiently to changing market conditions. At the same time, this structural integration into global value chains exposes firms to increasing sustainability pressures. International buyers, particularly from European markets, impose growing requirements related to environmental standards, transparency, and traceability.

As a result, the structure of the Turkish fashion industry not only shapes production dynamics but also conditions how sustainability transformation emerges within firms operating in the sector.

3.3 Sustainability Pressures and Opportunities in the Fashion Industry

In recent years, the fashion industry has become one of the most widely discussed sectors not only because of its economic scale and role in global trade, but also due to the environmental impacts associated with its production processes. Textile and apparel manufacturing operates within a system characterised by intensive resource use, high water consumption, and significant waste generation. This points to the sector has become a central focus of global sustainability debates (UNEP, 2020).

Fashion production generates substantial environmental impacts, particularly in relation to water use, chemical-intensive processes, and textile waste. Dyeing and finishing stages require large quantities of water and chemicals, while accelerated production cycles and increasing consumption patterns contribute to rising levels of post-consumption waste. At the global level, millions of tons of textile products reach end-of-life each year, with a significant proportion not being recycled (UNEP, 2020). This production–consumption model highlights structural inefficiencies in resource use and underscores the need for transformation toward more sustainable systems.

The environmental footprint of the fashion industry is further reinforced by its contribution to greenhouse gas emissions. Production takes place across an extensive value chain, ranging from fibre production and textile processing to logistics and retail distribution. This multi-stage structure contributes to a significant carbon footprint at the global level (Global Fashion Agenda, 2023). Increasing production volumes and the globalisation of supply chains have amplified the scale and visibility of these impacts.

Rising awareness of these environmental challenges has translated into increasing transformation pressures on the sector. International policy frameworks and regulatory initiatives, including the United Nations Sustainable Development Goals and the European Union's strategies on sustainable textiles and circular economy, have introduced new standards shaping production systems. These frameworks are complemented by industry-level sustainability initiatives that encourage firms to reassess resource use, production processes, and supply chain practices (European Commission, 2022).

These pressures are particularly significant for firms operating in producer countries that are strongly integrated into international markets. In such contexts, sustainability requirements are not only regulatory but also market-driven, as international buyers increasingly demand compliance with environmental standards, transparency, and traceability.

At the same time, sustainability pressures are also associated with the emergence of new opportunities within the fashion industry. The shift toward circular economy principles has led to the development of alternative production models and business practices. Approaches such as the use of recyclable materials, the extension of product lifecycles, and the reduction of waste are becoming increasingly central to production systems (Ellen MacArthur Foundation, 2017). These developments indicate that sustainability is not only a constraint but also a driver of innovation in production and business model design.

Within this global transformation, the Turkish textile and apparel sector is directly exposed to sustainability pressures due to its position as a key production hub within international fashion supply chains. Strong integration with European markets requires Turkish manufacturers to comply with evolving environmental regulations, sustainability standards, and supply chain transparency requirements. As a result, global sustainability dynamics increasingly shape production practices in Turkey (McKinsey & Company, 2023).

In order to present the environmental impact of the fashion industry and the key drivers of sustainability transformation more clearly, the main indicators are summarised in Table 3.2

Table 3.2 Environmental Impact Indicators of the Fashion Industry

Indicator	Value	Implication for Sustainability Transformation
Global textile waste generated annually	92 million tons	Highlights the linear structure of production systems and the need for circular material flows
Water consumption of the fashion industry	79 billion cubic meters per year	Indicates high resource intensity, requiring efficiency improvements and water management strategies
Share of global carbon emissions attributed to the fashion industry	8–10% of global emissions	Reflects the sector's contribution to climate change, reinforcing pressure for low-carbon production systems
Increase in global clothing production since 2000	100% increase	Demonstrates the acceleration of consumption cycles, intensifying environmental pressures

Source: UNEP (2020); Global Fashion Agenda (2023); Ellen MacArthur Foundation (2017)

The indicators presented in Table 3.2 demonstrate the scale of environmental pressures associated with fashion production. High levels of water consumption, increasing volumes of textile waste, and the sector's contribution to global emissions highlight the intensity of resource use within production systems. The significant growth in production volumes over recent decades has further amplified these impacts, making sustainability challenges more visible.

These dynamics have reinforced the need for transformation across the sector. Regulatory frameworks such as the European Union's sustainable textiles strategy and circular economy

policies have introduced new requirements that particularly affect producers integrated into European markets (European Commission, 2022).

This points to sustainability transformation in the fashion industry is increasingly understood not only as a response to environmental pressures but also as a process that enables the development of new production approaches and business model configurations. Resource efficiency, material circularity, and waste reduction are becoming central elements in the reorganisation of production systems.

For the Turkish fashion industry, these developments translate into a dual dynamic: increasing pressure to comply with international sustainability standards, and growing incentives to adopt new production practices aligned with these requirements. This interaction between external pressures and emerging opportunities plays a central role in shaping how firms operating in Turkey engage with sustainability-driven transformation.

3.4 Sustainability Transformation in the Turkish Fashion Industry

Increasing sustainability-related pressures in the global fashion industry have led to a reassessment of production systems not only among global brands but also within supplier countries integrated into international production networks. For countries positioned as key manufacturing hubs within global value chains, compliance with sustainability standards has become an increasingly important condition for maintaining competitiveness. From this perspective, sustainability transformation extends beyond reducing environmental impacts and increasingly requires firms to align their production systems with evolving international market expectations.

The Turkish textile and apparel sector is directly affected by these dynamics due to its strong integration into global fashion supply chains. Intensive trade relations with European markets

have made compliance with sustainability standards, environmental regulations, and transparency requirements increasingly central for Turkish manufacturers. In particular, policy frameworks developed at the European level have introduced new standards that directly influence production practices in supplier countries (European Commission, 2022).

In response to these pressures, sustainability-oriented practices have become more visible across the Turkish fashion industry. Firms are increasingly adopting production approaches aimed at reducing environmental impact, including the use of sustainable materials, improvements in resource efficiency, and the development of recycling practices. These changes reflect a shift in how production systems are evaluated, where environmental performance is increasingly considered alongside cost and production capacity.

At the same time, the transformation process is supported by industry-level initiatives and institutional programmes. Sectoral organisations and public institutions have introduced various mechanisms aimed at facilitating the adoption of sustainable production practices. Programmes developed by the Istanbul Apparel Exporters' Association (IHKIB), for example, provide support in areas such as textile waste recovery and the development of circular production models. Similarly, policy initiatives and compliance programmes implemented by the Republic of Turkey Ministry of Trade contribute to aligning production practices with international sustainability standards (Republic of Turkey Ministry of Trade, 2023).

International industry initiatives also play an important role in shaping transformation dynamics. The increasing use of recycled fibres, the integration of sustainable materials into production processes, and the diffusion of practices aimed at reducing textile waste are becoming more widespread across global fashion supply chains (Textile Exchange, 2023). Firms operating in Turkey are increasingly adopting these practices as part of their integration into international production networks.

These developments indicate that sustainability transformation in the Turkish fashion industry is shaped by a combination of external pressures and internal adaptation processes. On the one hand, regulatory frameworks and market expectations generate pressures for compliance; on the other hand, industry initiatives and evolving production practices create opportunities for firms to reorganise their production systems.

In order to illustrate the main initiatives and indicators associated with this transformation process, selected examples are summarised in Table 3.3

Table 3.3 Key Sustainability Transition Indicators in the Turkish Fashion Industry

Sustainability Dimension	Industry Indicator	Evidence from Industry Reports	Implications for the Turkish Fashion Industry
Resource consumption	High water and chemical intensity in textile processing, particularly in dyeing and finishing stages	Textile processing is consistently identified as one of the most resource-intensive phases of apparel production (UNEP, 2020)	Turkish manufacturers are required to adopt water-efficient technologies and improved chemical management systems to comply with international sustainability standards
Textile waste	Rapid increase in post-consumer textile waste driven by shortened product lifecycles and fast fashion consumption patterns	Industry reports highlight rising volumes of textile waste alongside limited recycling capacity (Ellen MacArthur Foundation, 2017)	Expansion of textile recycling initiatives and circular production practices within Turkish industrial clusters
Carbon emissions	Significant greenhouse gas emissions generated across fibre production, manufacturing, and logistics stages	The fashion industry accounts for a substantial share of global industrial emissions (Global Fashion Agenda, 2023)	Integration of energy-efficient production technologies and carbon reduction practices to maintain competitiveness in global supply chains
Sustainable material adoption	Increasing use of recycled fibres and certified raw materials such as recycled polyester and organic cotton	Industry platforms report steady growth in the adoption of recycled and certified materials in textile production (Textile Exchange, 2023)	Turkish suppliers expand the use of certified and recycled materials to align with sourcing requirements of international fashion brands
Regulatory pressure	Strengthening sustainability regulations shaping global fashion production systems	EU Green Deal and Sustainable Textile Strategy introduce stricter requirements related to traceability, circularity, and environmental performance (European Commission, 2022)	Turkish exporters increasingly align production practices with EU sustainability regulations due to strong trade integration with European markets

Source: UNEP (2020); Ellen MacArthur Foundation (2017); Global Fashion Agenda (2023); Textile Exchange (2023); European Commission (2022); Author's elaboration based on Turkish industry reports

The indicators presented in Table 3.3 highlight the increasing influence of sustainability pressures on production processes. High levels of water and chemical use, growing textile

waste, and carbon emissions associated with global supply chains underline the need for transformation toward more resource-efficient production systems.

For the Turkish fashion industry, these dynamics translate into a growing emphasis on practices such as energy-efficient production technologies, environmental management systems, and the use of sustainable materials. The diffusion of these practices reflects both compliance with international standards and the strategic importance of sustainability within global production networks.

At the same time, sustainability transformation is increasingly linked to competitiveness. Firms operating within international supply chains are required not only to meet cost and quality expectations but also to demonstrate compliance with sustainability criteria. This shift indicates that sustainability is becoming embedded in production strategies rather than remaining an external requirement.

Within this framework, sustainability transformation in the Turkish fashion industry is not limited to sector-level developments but increasingly manifests at the firm level through changes in production practices and business model configurations.

3.5 SMEs and MNEs in the Turkish Fashion Industry

The production organisation of the Turkish fashion industry is structured around firms operating at different scales and performing distinct roles within global production networks. Textile and apparel manufacturing takes place within multi-layered value chains, where firms specialise in specific stages of production and are positioned differently in terms of value creation and coordination. Understanding the structure of the sector therefore requires

considering not only production capacity, but also firm scale, value chain position, and organisational role within the production system.

A substantial share of production in the Turkish textile and apparel sector is carried out by small and medium-sized enterprises. These firms primarily operate as manufacturers and subcontractors, specialising in particular stages of production and supplying international fashion brands. Their role within the production system contributes to the development of flexible manufacturing capacity and enables rapid responses to international demand. The prevalence of SMEs in textile and apparel manufacturing is also widely documented in studies on global fashion production networks (OECD, 2020).

At the same time, global fashion production is coordinated by multinational enterprises that operate as lead firms within international value chains. These firms typically control higher value-added activities such as design, branding, marketing, and supply chain coordination, while production activities are largely outsourced to supplier firms across different countries. Within this structure, multinational enterprises function as coordinators of global sourcing and production networks, shaping the organisation of production and the distribution of value across the supply chain (Gereffi & Frederick, 2010).

Within the Turkish context, this division of labour becomes particularly visible. A large number of domestic firms operate as supplier manufacturers integrated into global production networks, while multinational companies are positioned as coordinating actors that manage supply chains and access international markets. As a result, value creation processes are distributed across firms operating at different scales, with SMEs primarily engaged in production activities and MNEs performing coordination and governance functions.

These structural differences extend beyond production roles and are closely related to resource availability, organisational capacity, and innovation orientation. SMEs generally

operate with more limited financial and technological resources, and their activities are often centred on production efficiency and incremental improvements. In contrast, multinational enterprises possess greater capital, advanced technological infrastructures, and more formalised organisational structures, enabling them to implement large-scale innovation strategies and coordinate complex supply chain systems.

Such differences also shape how sustainability is approached within the sector. Firms positioned as suppliers within global value chains are often required to comply with sustainability standards defined by lead firms, while multinational enterprises play a more active role in setting and diffusing these standards across production networks. As a result, sustainability pressures are not experienced uniformly but are mediated by firms' positions within the value chain, their resource configurations, and their organisational capabilities.

The main structural differences between SMEs and multinational enterprises operating in the Turkish fashion industry are summarised in Table 3.4.

Table 3.4 Structural Differences Between SMEs and MNEs in the Turkish Fashion Industry

Dimension	SMEs	MNEs
Role in the value chain	Manufacturers and subcontractors	Lead firms coordinating global supply chains
Production scale	Small- to medium-scale, flexible production structures	Large-scale global production networks
Supply chain position	Suppliers embedded in buyer-driven global value chains	Coordinators of sourcing and production networks
Resource availability	Limited financial and technological resources	Extensive capital, technology and managerial capabilities
Innovation orientation	Incremental and production-oriented innovation	Strategic innovation, branding and product development
Sustainability implementation capacity	Limited capacity for sustainability investments and compliance	Advanced capacity to implement sustainability strategies, traceability, and compliance systems
International market presence	Export-oriented manufacturing suppliers integrated into global markets	Global brands with international sourcing and retail networks

Source: Author's elaboration based on Gereffi & Frederick (2010); OECD (2020); Euratex (2023).

Structural differences across firm types indicate that sustainability driven transformation is shaped by scale dependent dynamics. SMEs tend to engage with sustainability through compliance driven and production oriented adjustments, reflecting their position within buyer driven value chains. In contrast, multinational enterprises are more likely to integrate sustainability into strategic decision-making processes and to implement system-wide changes across global supply networks.

These differences suggest that sustainability-driven business model transformation does not follow a uniform trajectory but instead varies according to firm scale, organisational capacity, and value chain positioning. Understanding these variations provides a foundation for analysing how firms operating at different scales respond to sustainability pressures and how business model transformation unfolds within the fashion industry.

3.6 Chapter Overview

Chapter 3 establishes a link between the theoretical perspectives outlined in Chapter 2 and the production dynamics observed in the fashion industry, situating the analytical framework within a concrete sectoral context. The analysis of the Turkish fashion industry highlights the structural characteristics of the sector, its integration into global production networks, and the increasing influence of sustainability dynamics across international fashion supply chains.

The findings indicate that Turkey occupies a strategic position within global fashion value chains, supported by its manufacturing infrastructure, geographical proximity to European markets, and export-oriented production system. This positioning has enabled the development of a highly integrated production network in which a large number of firms operate as suppliers to international fashion brands.

At the same time, the sector is increasingly shaped by sustainability-related pressures emerging from international regulatory frameworks, market expectations, and industry initiatives. These pressures contribute to the emergence of new standards in production systems, particularly in areas such as resource efficiency, material use, and supply chain transparency. This points to sustainability becoming an important factor influencing how production processes are organised within the sector.

Another key finding concerns the structural diversity of firms operating within the Turkish fashion industry. The coexistence of small and medium-sized manufacturing firms and multinational enterprises creates differentiated organisational conditions in terms of resource availability, value chain positioning, and strategic capacity. These differences shape how firms engage with sustainability pressures and influence the ways in which sustainability practices are integrated into business model structures.

Taken together, the analysis shows that sustainability transformation in the Turkish fashion industry is embedded within a broader production context characterised by global value chain integration and firm-level heterogeneity. This context provides the basis for examining how firms operating at different scales respond to sustainability pressures and how business model transformation unfolds across organisational settings.

CHAPTER 4: Research Design and Methodology

This thesis examines how international companies operating within the Turkish fashion industry are transforming their business models in response to sustainability pressures. In the fashion sector, sustainability-driven transformation is emerging not as a set of standardized practices, but rather as a dynamic and context-sensitive process shaped by firms' organizational structures, their positions within the value chain, and increasing environmental and regulatory pressures. Therefore, the analysis focuses on understanding how these transformation processes manifest in different organizational contexts rather than merely measuring predefined outcomes.

Given the nature of the research question, which seeks to understand how transformation processes develop across firms, the study adopts an exploratory research approach. Exploratory research is particularly suitable for examining emerging or insufficiently understood phenomena, as it allows for the identification of patterns and underlying mechanisms rather than the testing of predefined hypotheses. As noted by Stebbins (2001), *"exploratory research proves most effective for studying new or poorly understood subjects, helping to uncover patterns and generate new insights."*

In line with this approach, the research is based on a qualitative multiple-case study design. The case study method allows for the examination of current phenomena within their real-life context; this method becomes particularly meaningful when the boundaries between the phenomenon under study and its surrounding environment are unclear (Yin, 1984; Crowe et al., 2011). This is of critical importance for sustainability-focused business model transformation, as such transformation is shaped by firm-specific conditions and cannot be addressed independently of the organizational and institutional context.

The multiple-case design also facilitates the establishment of a comparative analytical framework. Examining firms that differ in terms of organizational scale, resource structures,

and their positions within the value chain makes it possible to identify both common patterns and context-specific differences. As Eisenhardt (1989) also emphasizes, multi-case studies provide a strong foundation for developing theoretical insights through systematic comparisons across cases.

Within this framework, sustainability-focused business model transformation is not treated as a fixed outcome but rather as a dynamic process shaped by firms' strategic choices, operational practices, and value chain relationships.

4.1 The Research Context

The Turkish fashion industry occupies a strategic position within global fashion value chains, functioning as a key production and supply hub. Its geographical proximity to European markets, combined with flexible production capacity and short delivery times, has positioned Turkey as a critical nearshoring location for international fashion brands (Gereffi, 1999). This positioning reflects not only production capacity but also a highly integrated production system characterized by strong interactions between global buyers and local manufacturers.

The sector operates predominantly within an export-oriented production model, where manufacturing firms maintain close and sustained relationships with international brands. These relationships require firms to continuously adapt to the global fashion industry's demands for speed, cost efficiency, and flexibility. In particular, short production cycles and high responsiveness, which are central to fast fashion systems, play a defining role in shaping production dynamics in Turkey (Tokatlı, 2008).

Within this structure, Turkey's role in global fashion production can be understood through its strong integration into European-centered value chains, its capacity for rapid and flexible manufacturing, and its dense network of supplier relationships with international brands.

These characteristics position the Turkish fashion industry as a dynamic production ecosystem embedded within global supply networks.

This structural positioning generates continuous transformation pressures for firms operating within the sector. Close integration with international brands requires ongoing adjustments in production standards and organizational practices. In recent years, these pressures have intensified with the increasing importance of sustainability within global fashion value chains. Regulatory developments, particularly those originating from the European Union, alongside growing demands for transparency and circular production models, are reshaping expectations imposed on suppliers (European Commission, 2020).

However, sustainability-driven transformation does not unfold uniformly across firms. Organizational scale, resource availability, and value chain position play a critical role in shaping both the scope and pace of this transformation. Large-scale firms integrated into global markets are generally able to implement sustainability practices in a more structured and systematic manner, whereas smaller firms often face more constrained and incremental adaptation processes (Karaosman et al., 2020).

This variation creates a suitable empirical context for examining how sustainability-driven business model transformation differs across organizational settings. The Turkish fashion industry thus provides a multi-layered environment in which firms exposed to similar global pressures pursue distinct transformation pathways depending on their structural characteristics.

In line with this analytical objective, case selection was conducted using a purposive sampling approach. Rather than aiming for statistical representativeness, the sample was designed to capture variation across key analytical dimensions, including organizational scale, value chain position, and degree of international integration. The final sample consists of five firms

actively operating within the Turkish fashion industry, encompassing both multinational enterprises and small and medium-sized firms (Damat Tween, Bershka, Benetton, Saracoglu Wear, and Saillakers).

The inclusion of firms operating at different positions within the value chain ranging from brand and retail activities to manufacturing and supply enables the analysis of how sustainability pressures are transmitted and addressed across different stages of production. At the same time, the coexistence of internationally integrated firms and smaller-scale producers allows for the examination of how resource structures and organizational capacities influence transformation processes.

In this context, case selection functions not only as a methodological step but as a core component of the analytical framework. The diversity embedded in the sample enables a systematic comparison of similarities and differences across firms, providing the basis for identifying patterns and variations in sustainability-driven transformation.

Damat Tween is a long-established Turkish fashion company that operates both as a brand and a retailer and is integrated into international markets. The company is undergoing a transformation process that integrates sustainability into its business model by restructuring its existing production and organisational framework.

Bershka and Benetton are multinational brand and retail firms operating within global fashion networks. These firms reflect an approach that systematically integrates sustainability into their business model through corporate strategies, standards and supply chain practices.

Saracoglu Wear is a small and medium-sized enterprise focused on production and supply, working with international clients. This firm represents a transformation process in which sustainability demands are largely shaped by external stakeholders and customer expectations.

Saillakers, on the other hand, is a smaller-scale fashion start-up that manages both design and production processes. The firm offers an example of integrating sustainability into its business model through a more flexible, selective and entrepreneurial approach.

The differing organisational structures and positions within the value chain of these firms demonstrate that the transformation towards a sustainability-focused business model is not a uniform process. On the contrary, the scope and direction of the transformation are shaped by firm size, resource structure and international connections. Consequently, the selected cases provide not only empirical examples but also an analytical framework representing different transformation logics.

Table 4.1 presents an overview of the selected case companies, providing key information on their organizational characteristics, including their global origins, roles within the fashion value chain, and structural features.

Table 4.1 : Overview of the Case Companies

Company	Country of Origin	Year Founded	Number of Employees (Turkey Based)	Role in Value Chain	Firm Type
Damat Tween	Turkey	1986	~2,500	Brand and Retail	MNE
Bershka	Spain	1998	~650	Brand and Retail	MNE
Benetton	Italy	1965	~400	Brand and Retail	MNE
Saracoglu Wear	Turkey	1950	~40	Manufacturing and Supplier	SME
Saillakers	Turkey	1958	~30	Brand and Producer	SME

Source: Author's own elaboration based on interviews and secondary data

4.2 Qualitative Multiple Case Analysis

This section outlines the analytical approach adopted to examine sustainability-focused business model transformation among firms. The analysis treats transformation not as a static

outcome, but as a dynamic and context-sensitive process shaped by organisational characteristics, position within the value chain, and strategic orientations.

This approach aligns directly with the research question focused on understanding how sustainability-focused transformation processes unfold across firms. Accordingly, the analysis aims not only to identify the practices but also to reveal the mechanisms through which these transformations emerge and how they vary across different organisational contexts.

The analytical process is structured around two complementary phases: within-case analysis and cross-case analysis. In the first phase, each firm is examined within its own specific organisational context. Data obtained from semi-structured interviews is analysed alongside firm documents and publicly available sources to ensure a thorough understanding of transformation processes at the firm level.

In the second stage, a cross-case comparative analysis is conducted. Firms are systematically compared in terms of organisational scale, resource structures and their position within the value chain. This comparative framework enables the identification of both common patterns and context-specific differences in sustainability-focused business model transformation. Within the context of multiple case studies, Eisenhardt (1989) emphasises that cross-case comparison plays a central role in developing theoretical implications. Accordingly, the analysis is not limited to descriptive comparisons but systematically identifies recurring patterns, divergences and different transformation pathways.

Within this framework, sustainability-focused transformation is interpreted as a multi-layered process that varies depending on firms' organisational capacities and strategic structures. To enhance analytical robustness, a triangulation approach utilising multiple data sources has been adopted. Interview data, firm documents and publicly available information have been systematically compared to strengthen the consistency of the findings.

The findings are evaluated within the framework of analytical generalisation rather than statistical generalisation. The aim is not to produce universally generalisable results, but rather to develop conceptual insights into how sustainability-focused business model transformation takes shape within different organisational contexts.

4.3 Data Collection Process and Interview Design

The empirical foundation of the study is based on the combined use of primary and secondary data sources, enabling a comparative analysis of sustainability-driven business model transformation across different organizational contexts.

Primary data were collected through semi-structured interviews conducted with representatives of the selected firms. The interview design was structured to capture firms' sustainability approaches, business model configurations, and their positions within the value chain. To ensure analytical consistency, the interview framework was organized around key themes, including sustainability practices, organizational decision-making processes, and their implications for business model transformation. At the same time, the semi-structured format allowed sufficient flexibility to capture firm-specific dynamics and context-dependent variations.

Interviewees were selected through purposive sampling, in line with the analytical focus of the study. Interviewees consisted of individuals directly involved in strategic and operational decision-making processes, including executives, founders, and senior managers. This ensured that the data reflect not only observable practices but also the strategic logics shaping sustainability transformation.

All interviews were conducted online via video conferencing tools, allowing access to diverse organizational contexts while maintaining procedural consistency. Interviews followed

predefined thematic guidelines but remained flexible to enable Interviewees to elaborate on issues they considered particularly relevant. The duration of the interviews ranged between 35 and 60 minutes, providing sufficient depth for qualitative analysis. Notes were taken during the interviews, and recordings were used where appropriate to ensure accuracy and completeness.

In addition to primary data, secondary sources were used to contextualize and support the analysis. These include company websites, publicly available reports, and corporate communications. Rather than being treated as an independent unit of analysis, secondary data were used to complement and verify insights obtained from interviews, particularly in relation to firms' stated sustainability strategies and observable practices.

To strengthen analytical robustness, a triangulation approach was adopted by combining multiple sources of evidence. Interview data were systematically cross-checked with company documents and publicly available information, enhancing the credibility and validity of the findings (Yin, 2014).

Overall, the data collection process was designed to ensure both depth and comparability across cases. The combination of semi-structured interviews and supporting secondary data establishes a consistent empirical basis for identifying similarities, differences, and emerging patterns across firms. An overview of the interviews conducted is presented in Table 4.2.

Table 4.2 : Interview Overview

Company	Interviewee Role	Interview Mode	Date	Duration
Damat Tween	Head of Marketing and Member of the Executive Board	Online Interview	March 2026	60 min
Bershka	Regional Manager, Antalya	Online Interview	March 2026	45 min
Benetton	Human Resources Manager and Marketing Manager (two Interviewees)	Online Interview	March 2026	60 min
Saracoglu Wear	Owner–Manager	Online Interview	March 2026	35 min
Saillakers	Executive Board Member	Online Interview	March 2026	40 min

Source: Author's own elaboration based on primary data collected through interviews

4.4 Methodological Overview

The methodological framework established in this section provides the necessary foundation for analysing sustainability-focused business model transformation within the context of the

Turkish fashion industry. The qualitative multi-case study approach enables the examination of transformation processes emerging in different firms within their own contexts, whilst the combined use of semi-structured interviews and secondary data sources supports both the depth and consistency of the analysis.

In the adopted approach, transformation is treated not as a fixed outcome but as a process shaped by firms' organisational structures, their positions within the value chain, and their strategic choices. Consequently, the analysis focuses not merely on identifying practices but on understanding how these practices emerge and why they differ across firms. By using both within-case and cross-case analysis, both internal firm dynamics and inter-firm differences are brought into sharper focus.

This framework provides a direct foundation for the empirical analysis to be conducted in the next section. In the following section, firms will first be examined within their own contexts, after which common trends and divergent forms of transformation will be explored using a comparative approach. This will make it possible to demonstrate more clearly that sustainability-focused business model transformation is not a uniform process, but rather develops in different ways depending on firm size, resource structure and position within the value chain.

Chapter 5: Case Study Analysis and Findings

The companies examined reveal that the transition to a sustainability-oriented business model is not proceeding as a uniform process within the context of the Turkish fashion industry. Companies operating under similar regulatory pressures, international buyer demands, and supply chain requirements interpret these pressures in different ways and restructure their business models through different components. The direction and scope of the transformation are distinctly shaped by firm size, organizational capacity, and position within the value chain.

Empirical findings indicate that sustainability in firms is not limited to the adoption of specific practices but involves restructuring the mechanisms of value creation, value delivery, and value capture the fundamental components of the business model. However, this restructuring occurs with varying intensities across firms. While in some firms the transformation progresses through pre-production decision-making mechanisms and operational efficiency, in others it takes shape through supply chain coordination, material selection, process traceability, or the product's lifecycle.

This differentiation demonstrates that the sustainability transformation cannot be explained solely by external pressures. What is decisive is how these pressures are internalized within the firm and reflected in which components of the business model. This necessitates treating the sustainability transformation as a strategic and organizational reconfiguration process at the firm level.

In this regard, the analysis focuses not merely on describing firms' practices but on revealing how their business model logics are being restructured in line with sustainability. The study first presents an empirical overview based on case studies, followed by a comparative analysis of the emerging patterns. The findings, when linked to the literature on sustainable business

models, reveal the mechanisms through which transformation is progressing in international firms operating in Turkey.

5.1 Case-Based Empirical Overview

Case studies reveal how sustainability-oriented business model transformation manifests at the firm level. Each of the firms examined presents a distinct analytical case pointing to different starting points, different drivers, and different areas of restructuring for the transformation. Therefore, the focus is not merely on describing the firms' practices, but on identifying which components of the business model these practices transform and under what conditions this transformation takes shape.

Empirical findings clearly demonstrate that sustainability transformation does not proceed in a homogeneous manner across firms. The fact that transformation concentrates in different areas across different firms indicates that sustainability emerges not as a standard set of practices, but as a restructuring process that varies depending on firm scale, resource structure, and position within the value chain.

Within this framework, each case is examined to reveal how sustainability pressures are interpreted within the firm, in which intervention areas they concentrate, and what types of reconfigurations these interventions produce across the dimensions of value creation, value delivery, and value capture within the business model.

5.1.1 Multinational Corporations (MNEs)

Although sustainability-oriented business model transformation emerges within a common context of pressure in large-scale firms, this transformation does not proceed through the same mechanisms in every firm. Empirical findings indicate that sustainability is integrated

into the business model of MNEs through more institutionalized structures, broader resource capacity, and greater coordination power. However, the specific business model component where the transformation is concentrated varies depending on the firm's position within the value chain and its organizational structure.

In the Damat Tween case, the transformation proceeds through the restructuring of production decisions at an early stage and the refinement of operational processes. The firm approaches sustainability not as an afterthought or an area of compliance, but as a natural extension of operating on an international scale. The interviewee stated that *"we started investing in sustainability in 2013. Because we are a global brand, we naturally have to follow trends and expectations around the world"* (P2) demonstrates that sustainability gained strategic importance early on alongside the firm's global positioning. This indicates that while the transformation was triggered by external pressures, it has become institutionalized enough to be embedded in operational decisions within the firm.

One of the areas where this transformation is most evident at Damat Tween is the pre-production screening and selection mechanisms. The reorganization of sample and collection preparation processes using digital tools has shifted the decision-making logic regarding which products enter production into a more controlled framework. As noted by the interviewee, "if we previously had 2,000 samples, we can now reduce this to 1,200 through digital pre-selection" (P2), indicating that sustainability is integrated not only into the production phase but also into pre-production filtering processes. This approach redefines the value creation process as a mechanism that limits resource usage before production even begins.

The redesign of processes reveals that sustainability is addressed alongside operational efficiency. The interviewee's emphasis on making processes "shorter, smarter, and more

optimized" (P2) reflects how sustainability is pursued alongside cost and efficiency considerations within the company. In this context, sustainability is not merely an element that reduces environmental impact but also a mechanism that enhances organizational performance.

In the product development process, sustainability creates a scope of influence extending all the way to the product's post-use performance. The statement *"We reduced our return rate from around 25% to around 6%"* (P2) demonstrates that sustainability is effective throughout the product lifecycle alongside increased production accuracy. This situation reveals that the value creation process is being redefined not only during the production phase but also through post-use performance and return rates.

When these findings are evaluated together, it becomes evident that the sustainability-oriented business model transformation at Damat Tween progresses through a holistic structure established between pre-production decision-making mechanisms, operational efficiency, and the product lifecycle. The transformation redefines the decision-making logic regarding which products are produced under what conditions, rather than simply reducing production volume. This structure demonstrates that the sustainability-oriented transformation progresses through the joint restructuring of value creation and value capture mechanisms.

At Bershka, where production processes are organized through a broad network of suppliers rather than being directly managed in-house, sustainability-oriented transformation is shaped more by supply chain organization and compliance with standards than by internal production practices. Therefore, the logic of the transformation is related not so much to where production takes place, but rather to how it is coordinated. As noted by the interviewee, "First, consumer behavior has changed… Second, European Union regulations have played a major role…" (P3), suggesting that the transformation is primarily driven by external

pressures. In this context, consumer expectations and regulatory frameworks position sustainability not as a strategic choice but as an operational necessity.

At Bershka, the most evident reflection of this transformation is seen in production and inventory management processes. The statement *"The most significant transformation occurred in production and inventory management"* (P3) demonstrates that sustainability directly influences stock planning, production flow, and resource utilization logic. This indicates that the operational flows of the business model have been reorganized in line with sustainability criteria.

This restructuring suggests that the business model is evolving from a linear structure toward a more circular configuration. As described by the interviewee as "a shift from a linear model to a more circular business model" (P3), this transformation extends beyond process-level improvements and reflects a broader organizational restructuring. Within this framework, sustainability is integrated into the business model through standards, audit mechanisms, and coordination capabilities across the supply chain.

The Bershka example demonstrates that sustainability-oriented transformation is particularly concentrated in the value delivery dimension. The restructuring of the business model is shaped not so much by how the product is produced, but rather by how it is coordinated, managed, and presented within which standards.

At Benetton, sustainability-oriented transformation exhibits a structure fully integrated into brand strategy and product development approaches. The company positions sustainability not as an area of operational compliance, but as a direct component of its value proposition. As noted by the interviewee, "sustainability is no longer just a communication element, but a factor that directly defines the identity of the brand" (P5), reflecting this integration. This

approach suggests that sustainability is embedded not only as a requirement but as a core element of the company's competitive positioning.

This integration is particularly evident in product development and material selection processes. *"The selection of raw materials has completely changed. Sustainable cotton and recycled materials have become standard"* (P5) demonstrates that sustainability directly influences value creation through product composition and production inputs. This situation reveals that the value creation process has been redefined not only through design and aesthetics but also through the quality of materials used and production conditions.

Additionally, sustainability is supported by standardized practices throughout the supply chain. The statement *"we do not work with suppliers who do not meet sustainability criteria"* (P5) demonstrates that sustainability is not limited to internal company processes but is integrated into the business model through a control and coordination mechanism that extends across the value chain. In this context, sustainability generates a value-delivery logic that encompasses both how the product is produced and the standards under which this production takes place.

These findings indicate that the sustainability-oriented transformation at Benetton simultaneously restructures both the value creation and value delivery dimensions. The transformation goes beyond operational processes to directly redefine the content of the firm's value proposition and how that value is organized.

When these three cases are evaluated together, it is observed that sustainability-oriented business model transformation in large-scale firms is based on institutionally embedded capacities, yet it focuses on different business model components in each firm. At Damat Tween, the transformation is progressing through pre-production decision-making structures and operational efficiency; at Bershka, through supply chain coordination and governance

capacity; and at Benetton, through the integration of brand strategy and product development processes. This differentiation clearly demonstrates that sustainability is not implemented as a uniform set of practices across MNEs, but rather is embedded in the business model in different ways depending on the firm's position in the value chain and its organizational structure.

5.1.2 Small and Medium-Sized Enterprises (SMEs)

The transition to a sustainability-oriented business model in small and medium-sized enterprises is shaped by more limited resources, more flexible organizational structures, and greater sensitivity to external pressures compared to large-scale firms. Empirical findings indicate that sustainability in SMEs is integrated into the business model through a transformation logic that is largely triggered by external demands, is more gradual, and focuses on specific areas. However, the direction of this transformation varies significantly depending on the firm's position within the value chain and its strategic approach.

In the case of Saracoglu Wear, sustainability-oriented transformation proceeds not so much through production outputs but rather through how processes are managed and controlled throughout the supply chain. The firm assumes a broader function encompassing product development, production organization, and logistics processes beyond its role as a manufacturer; this situation lays the groundwork for defining sustainability through process management rather than directly through production activities.

The growing importance of sustainability within the firm is directly linked to the process of integration into international markets. The interviewee highlights that "the real transformation started when we shifted towards export" (P1), suggesting that the transformation was largely driven by external demands. In particular, engagement with Europe-based customers has led

to production processes being evaluated not only in terms of outputs but also in terms of how they are conducted.

In this context, sustainability materializes through making processes systematic and traceable. *"We see it more as process management… it is important that a product is traceable from beginning to end"* (P1) indicates that sustainability is defined within the firm not so much through environmental practices but through transparency and control mechanisms. This approach restructures the operational flow of the business model by documenting, standardizing, and enhancing the traceability of production processes.

At the supply chain level, sustainability is integrated into the business model through the redefinition of supplier selection criteria. The interviewee highlights that "previously, we mainly focused on price and quality. Now, certification and reliability have also become important criteria" (P1), suggesting that value creation processes have evolved through the integration of sustainability into production inputs. However, this transformation is proceeding alongside cost pressures. The statement *"In the short term, it has a cost-increasing effect"* (P1) reveals that sustainability practices are being adopted more cautiously and gradually in SMEs.

These findings indicate that the sustainability-oriented transformation at Saracoglu Wear is concentrated particularly in the dimensions of value delivery and, to a lesser extent, value capture. The operational structure of the business model is being reorganized through process management, traceability, and supplier control; sustainability is largely linked to aligning with customer expectations and market access.

In the Saillakers example, however, the sustainability-oriented transformation is shaped not so much by processes but directly through product design and lifespan. Rather than increasing production volume, the firm focuses on the product's longevity and value creation during the

usage process, structuring its business model around a logic of lower-volume but higher-value production.

This approach demonstrates that sustainability is being redefined not only during the production phase but also through consumption behavior and the product's usage cycle. The interviewee highlights that "consumers do not replace products because they are worn out, but rather because they are no longer fashionable" (P6), suggesting that the issue is more closely related to consumption patterns than to physical durability. This awareness leads the company to rethink sustainability through the product's performance over time.

The approach developed in this regard aims for the product to gain value over time. The statement *"How can we design products that become more valuable as they age?"* (P6) demonstrates that sustainability is directly integrated into the design process and that the logic of value creation is being redefined. This reflects an approach that aims not only for the product to maintain its existence throughout its useful life but also to continue generating value aesthetically and functionally.

This transformation has also brought about restructuring in production processes. The interviewee's emphasis on the need to form new teams, reorganize the production line, and invest in new machinery (P6) suggests that sustainability requires structural changes within the company. While these investments may lead to increased costs in the short term, they yield returns in the long term through improved product quality and brand value.

The Saillakers example demonstrates that the sustainability-oriented business model transformation is particularly concentrated in the dimensions of value creation and value capture. While value is created through product design and longevity, value capture mechanisms are being restructured to leverage increased product value and brand positioning despite lower consumption frequency.

When these two cases are evaluated together, it is observed that sustainability-oriented business model transformation exhibits a more fragmented, gradual, and context-sensitive structure in SMEs compared to large-scale firms. While Saracoglu Wear demonstrates an adaptation-based structure driven by transformation process management and supply chain control, Saillakers highlights a value-focused transformation logic shaped by product design and lifespan. This divergence clearly demonstrates that sustainability-oriented transformation varies not only by firm size but also depending on position within the value chain, resource capacity, and strategic orientations.

These differences, along with the fundamental drivers, focus areas, and business model implications of sustainability-oriented transformation in the examined firms, are summarized in Table 5.1.

Table 5.1 Firm-Level Sustainability Transformation Snapshot

Firm	Type	Role	Driver	Focus	BM Dimension
Damat Tween	MNE	Brand / Retail	Global pressure	Pre-production control	Creation / Capture
Bershka	MNE	Brand / Retail	Market + EU pressure	Inventory & supply control	Delivery
Benetton	MNE	Brand / Retail	Strategic positioning	Materials & standards	Creation / Delivery
Saraçoğlu Wear	SME	Manufacturer / Supplier	Buyer pressure	Traceability systems	Delivery
Saillakers	SME	Brand / Producer	Design-driven logic	Product longevity	Creation / Capture

Source: Author's own elaboration based on interview data.

5.2 Drivers of Sustainability-Oriented Business Model Transformation

Empirical findings indicate that sustainability-oriented business model transformation cannot be explained by a single driving force. The transformation is shaped at the intersection of regulatory frameworks, customer demands, positioning within the supply chain, cost and efficiency dynamics, and internal strategic orientations. Each of these pressures is felt with varying intensity across different firms; this results in sustainability transformation exhibiting

a context-sensitive structure rather than a homogeneous one. In this context, these pressures emerge as fundamental driving forces that reshape firms' value creation, value delivery, and value capture mechanisms in different directions.

Regulatory pressures stand out as one of the most prominent external triggers of transformation, particularly for companies operating within the European Union. A Bershka representative's statement, *"European Union regulations have played a major role. Issues such as carbon footprint, production transparency, and environmental impact are becoming mandatory considerations"* (P3), demonstrates that sustainability is increasingly becoming a mandatory compliance area. Similarly, at Benetton, it is emphasized that sustainability has shifted from being a preference to becoming a prerequisite for operating within the system; *"any producer who does not comply with these regulations is automatically excluded from the system"* (P5). These findings indicate that regulatory frameworks are forcing companies not only to improve existing practices but also to rethink their business models.

Buyer pressure emerges as the direct trigger for transformation, particularly in export-oriented manufacturing firms. At Saracoglu Wear, the statement *"the real transformation started when we shifted towards export"* (P1) indicates that sustainability gained importance not as an internal preference within the firm, but in response to international customer demands. In the same context, the traceability of production processes comes to the fore; *"it is important that a product is traceable from beginning to end"* (P1). This situation reveals that value is defined not only through the final product but also through how the production process is organized. In large-scale firms, buyer pressure is fueled not only by commercial customers but also by consumer behavior. The emphasis on how new-generation consumer expectations are accelerating this transformation at Benetton (P5) indicates that the demand for sustainability originates from various layers of the value chain.

A company's positioning within the supply chain is one of the key factors determining how these pressures are internalized within the firm. A clear distinction is observed between firms that directly manage production and those that organize production through supplier networks. The emphasis on processes being coordinated within an integrated structure at Bershka (P3) indicates that sustainability is managed through coordination and governance capabilities across the value chain. At Benetton, despite production not being entirely carried out in-house, the fact that it is controlled through strict monitoring mechanisms (P5) reveals that sustainability is integrated into the business model through standards and compliance processes. In contrast, at manufacturing firms, the transformation proceeds through the direct restructuring of processes and the modification of operational practices. This distinction shows that sustainability transformation is related not only to "what is done" but also to "how it is organized."

Cost and efficiency dynamics are another critical factor determining the scope and pace of transformation. In large-scale firms, sustainability is often addressed alongside operational optimization. The approach at Damat Tween aimed at making processes more efficient (P2) and the emphasis on long-term efficiency gains at Bershka (P3) demonstrate that sustainability is positioned within a transformation logic aligned with economic performance. In contrast, cost pressure emerges as a more pronounced limiting factor in SMEs. The emphasis on the short-term cost-increasing effects of sustainability investments at Saracoglu Wear and Saillakers (P1; P6) indicates that the transformation is progressing in a more gradual and cautious manner. This situation reveals that the sustainability transformation takes shape within different financial dynamics depending on the firm's scale.

Internal strategic orientation is one of the key differentiating factors determining how these external pressures are addressed. While sustainability is treated as a compliance requirement in some firms, in others it becomes a strategic orientation at an earlier stage. The definition of

sustainability as part of the corporate identity at Benetton (P5) demonstrates that the transformation has been deeply internalized within the firm. In contrast, at Saillakers, sustainability emerges as a more niche and entrepreneurial approach that redefines the logic of value creation through product design. The statement *"How can we design products that become more valuable as they age?"* (P6) demonstrates that sustainability is directly integrated into the value creation process.

When these findings are evaluated together, it becomes evident that the transformation toward a sustainability-oriented business model is shaped not by independent pressures but by the interaction of these pressures. While regulatory frameworks, customer demands, and supply chain dynamics constitute the key drivers of the transformation, firm scale, organizational capacity, and strategic orientation determine how these pressures are interpreted and which components of the business model they influence. This situation reveals that the sustainability transformation is not a homogeneous adaptation process but rather a multi-layered restructuring process that varies depending on firm characteristics. In this context, the transformation emerges not merely as a response to external pressures but as a process resulting in the reconfiguration of the business model's value creation, value delivery, and value capture components in alignment with these pressures.

5.3 Reconfiguring the Business Model

The findings indicate that sustainability-oriented transformation in the firms examined is not limited to the adoption of new practices but involves the reconfiguration of the fundamental components of the business model. This restructuring involves the interconnected transformation of value creation, value delivery, and value capture mechanisms. In this context, sustainability goes beyond operational improvements to become an element that redefines how firms create, organize, and convert value into economic output.

In the dimension of value creation, transformation is emerging through product development processes, material selection, and pre-production decision-making mechanisms. At Benetton, the statement *"the selection of raw materials has completely changed. Sustainable cotton and recycled materials have become standard"* (P5) demonstrates that value creation is being redefined through product content and production inputs. At Damat Tween, the statement *"if we previously had 2,000 samples, we can now reduce this to 1,200 through digital pre-selection"* (P2) reveals that pre-production decision-making processes have become more selective and that resource usage is optimized before production begins. This approach demonstrates that value creation is structured around the right product selection and resource efficiency rather than production volume. The statement *"we reduced our return rate from around 25% to around 6%"* (P2) from the same company reveals that value creation extends to the post-use performance dimension.

In retail-focused firms, value creation is being reshaped through the product's meaning and production method. At Bershka, the statement *"the focus is not only on 'better fabrics' but also on 'less resource-intensive production'"* (P3) indicates that product value is defined not only through design and speed but also through the resource intensity of the production process. This situation reveals that value creation is shifting toward a production logic that uses fewer resources.

In SMEs, value creation follows a different trajectory. At Saillakers, the statement *"consumers do not replace products because they are worn out, but rather because they are no longer fashionable"* (P6) indicates that the sustainability issue is more closely related to consumption behavior than to production. The approach developed in this context is shaped around the question *"How can we design products that become more valuable as they age?"* (P6). This indicates that value creation is being redefined through the product's performance over time and the relationship it establishes with the user.

The transformation in value delivery emerges through the restructuring of supply chain organization, traceability, and standardization mechanisms. At Benetton, the statement *"we do not work with suppliers who do not meet sustainability criteria"* (P5) demonstrates that value delivery encompasses not only product delivery but also the control of production conditions. Similarly, the emphasis on transparency (P5) reveals that sustainability has become an integral part of the value offered. At Bershka, the statement *"suppliers are no longer evaluated solely based on cost"* (P3) indicates that supplier selection criteria have been redefined, and that value creation is structured around compliance and sustainability standards rather than cost and speed.

In SMEs, value delivery is shaped by process reliability and customer alignment. At Saracoglu Wear, the statement *"now we are not only saying 'we produced the product,' but also explaining 'how we produced it.' This creates trust"* (P1) demonstrates that traceability and process transparency have become fundamental elements of value delivery. Furthermore, the statement *"you trade some flexibility for more control"* (P1) reveals that this transformation creates a new balance between operational flexibility and control.

In terms of value capture, the transformation is shaped by cost structure, efficiency, and the logic of value creation. The emphasis on process optimization at Damat Tween (P2) demonstrates that sustainability is directly linked to operational efficiency. At Bershka, the statement *"less overproduction, fewer returns, and better planning all contribute to improved performance"* (P3) demonstrates that sustainability practices directly contribute to economic performance. The emphasis on the balance between cost increases and efficiency gains at Benetton (P4) shows that sustainability is linked to long-term value creation despite short-term cost pressures.

In SMEs, however, value capture relies on a more delicate balance. At Saracoglu Wear, the emphasis on reducing error and return rates as processes stabilize (P1) indicates that cost pressures have been balanced over time. At Saillakers, the statement *"in the long term, this investment creates significant value"* (P6) reveals that value capture is achieved through product quality, brand value, and longevity rather than production volume.

Overall, the sustainability-oriented transformation simultaneously restructures the three core components of the business model. However, this restructuring does not occur in the same manner across all firms. While large-scale firms exhibit a more systematic and integrated transformation, small and medium-sized firms proceed in a more selective manner, focusing on specific areas. This differentiation clearly demonstrates that the sustainability-oriented business model transformation is a multi-layered process that varies depending on the firm's scale and its position within the value chain. In this context, the transformation emerges not merely as the adoption of new practices but as a restructuring process resulting in the reconfiguration of the business model's mechanisms for value creation, value delivery, and value capture.

5.4 Comparative Findings: SMEs vs. MNEs

The comparative findings indicate that while the transition to a sustainability-oriented business model arises under similar pressures in both small and medium-sized enterprises (SMEs) and large-scale firms, it does not proceed according to the same logic. While regulatory frameworks, customer demands, and supply chain expectations influence both groups of firms, how these pressures are addressed systematically varies depending on firm size, organizational structure, and resource capacity. This variation constitutes the fundamental distinction that determines the depth and scope of sustainability's integration into the business model.

From the perspective of transformation logic, large-scale firms address sustainability within a more strategic and holistic framework. In these firms, sustainability is advancing as a broader restructuring process that establishes connections between product development, supply chain management, material selection, and operational systems. In contrast, transformation in SMEs is mostly reactive in nature and is shaped by specific customer demands, export pressures, or niche product strategies. Consequently, while sustainability becomes more systematically embedded in the overall logic of the business model in MNEs, a more selective and focused transformation model emerges in SMEs.

Decision-making structures further highlight this distinction. In large-scale firms, sustainability-oriented transformation proceeds through institutionalized processes, multi-layered organizational structures, and cross-departmental coordination. This structure ensures a more planned and consistent implementation of transformation while also fostering a higher level of structural integration. In SMEs, however, decision-making processes are more centralized and shaped under direct managerial control. While this provides flexibility in implementation, it limits the transformation's spread across the entire business model and results in a more fragmented integration.

Resource capacity also constitutes a key area of differentiation. Thanks to financial resources, technological infrastructure, and institutional knowledge, MNEs can plan sustainability investments on a broader scale and over the long term. This enables more systematic transformation steps, such as redesigning pre-production decision-making mechanisms, expanding the use of certified materials, and institutionalizing standards throughout the supply chain. In SMEs, however, limited resources turn sustainability practices into a more cautious, phased process that is often balanced against cost pressures. Consequently, while transformation in large firms appears as a capacity-driven restructuring, in SMEs it manifests as a selective adaptation process proceeding under constraints.

Positioning within the value chain is one of the most critical differentiating factors determining the direction of sustainability transformation. Large firms with coordination and governance capabilities over the supply chain have the ability to set sustainability standards and implement them through suppliers. This ensures that sustainability is integrated into the business model, particularly in terms of value creation, through governance mechanisms. In contrast, SMEs in the roles of producers and suppliers occupy a more dependent position and often act as actors required to comply with these standards. Thus, the transformation in SMEs is shaped primarily by a compliance logic, whereas in MNEs it is shaped by a logic of control and coordination.

The role of sustainability within the business model also differs markedly between the two groups. In large-scale firms, sustainability is integrated into brand positioning, operational systems, and supply chain management, establishing itself at the core of the business model. In SMEs, however, sustainability is mostly concentrated in more limited areas such as process management, customer compliance, or product-based differentiation. This situation indicates that sustainability generates a more integrated and system-wide transformation logic in MNEs, whereas in SMEs, it creates a more modular and component-level restructuring.

When these findings are evaluated together, it becomes clear that sustainability-oriented business model transformation follows different paths depending on firm scale. While transformation in SMEs proceeds as a more reactive, selective, and constraint-driven adaptation process, it develops as a more strategic, institutionalized, and system-wide restructuring in MNEs.Despite all these structural differences, empirical findings indicate that sustainability is implemented at the firm level through specific operational areas. In practice, sustainability is primarily manifested through areas such as the reorganisation of material selection, the use of certified inputs, the improvement of production processes, and the restructuring of supply chain relationships. In large-scale firms, these practices are carried out

in a more systematic and coordinated manner through standardised processes, corporate procedures, and supply chain management mechanisms. In contrast, similar practices in SMEs tend to be more selective, phased, and largely shaped by customer demands or export pressures. This situation reveals that, whilst sustainability practices share common ground across firms in terms of core areas, they differ in terms of scale, coordination, and the level of integration within the business model.

These distinctions are summarized in Table 5.2, which systematically outlines the fundamental comparative dimensions of sustainability-oriented business model transformation.

Table 5.2: Comparative Dimensions of Sustainability-Oriented Business Model Transformation in SMEs and MNEs

Dimension	SMEs	MNEs	Implication
Transformation Logic	Reactive	Strategic	Adaptation vs integration
Decision-Making	Founder-led	Formalized	Flexibility vs structure
Resources	Limited	Extensive	Selective vs systemic change
Supply Chain Role	Dependent	Governing	Compliance vs control
Sustainability Approach	Process-based	Integrated	Operational vs strategic
Scope of Transformation	Selective	System-wide	Partial vs full reconfiguration

Source: Author's own elaboration based on interview data

5.5 Conceptual Synthesis and Model

The comparative findings reveal that sustainability-oriented business model transformation is not merely a matter of differences in firm practices, but also produces a broader pattern demonstrating how the theoretical frameworks discussed in Chapter 2 are reflected at the

empirical level. The cases examined show that sustainability is not embedded in firms in the same way; rather, it transforms different components of the business model at different scales, in different value chain positions, and at different levels of organizational capacity.

First, from the perspective of the literature on sustainable business models, the findings indicate that sustainability is not a limited set of practices externally imposed on firms, but rather generates a logic of restructuring that is embedded with varying intensities across the business model's components of value creation, value delivery, and value capture. However, this restructuring does not occur with equal depth across all firms. While integration in SMEs tends to concentrate on specific components and operational areas, in large firms, sustainability leads to a more structural and system-wide reorganization of the business model. This reveals that sustainable business model transformation is not a uniform process independent of scale.

Second, when considered alongside the findings from the circular entrepreneurship perspective, it becomes evident that the logic of circularity manifests in different forms across firms. In SMEs, circularity develops primarily at the product level, through design decisions and longevity strategies. As seen in the Saillakers example, the approach aimed at increasing the product's value over time demonstrates that circularity is built through design and the product's lifespan. In contrast, in large-scale firms, circularity transforms into a broader operational restructuring through process integration, supply chain coordination, and pre-production decision systems. This distinction indicates that the different transformation pathways discussed in the circular entrepreneurship literature find empirical counterparts within the context of the Turkish fashion industry.

Third, discussions regarding firm scale and organizational capacity are strongly supported by the findings. Scale is not merely about whether firms have more resources; it is also a

fundamental determinant of how they internalize sustainability pressures, the pace at which they transform, and which components of their business model they can influence. Therefore, the SME–MNE distinction produces not merely a quantitative difference but a qualitative distinction that determines the direction, scope, and depth of integration of the transformation.

Within this framework, empirical findings suggest that sustainability-oriented business model transformation can be conceptualized through a three-stage logic. In the first stage, external pressures such as regulatory pressures, customer demands, and supply chain expectations create the initial conditions that trigger the transformation. In the second stage, these pressures are filtered through firm scale, resource capacity, decision-making structure, and position within the value chain, and are internalized in various forms. In the third stage, this internalization process transforms the mechanisms of value creation, value delivery, and value capture by fostering restructuring within the core components of the business model. Consequently, the sustainability transformation is not a linear adaptation process but rather a relational transformation process involving the interplay between pressures, organizational filters, and business model outcomes.

This conceptual synthesis also provides a direct answer to the research question. International firms operating in the Turkish fashion industry are restructuring their business models in line with sustainability not by copying similar practices, but through distinct transformation pathways shaped by firm scale, value chain role, and organizational capacity. While this process indicates a more holistic and systematic integration in large firms, a more selective, modular, and context-sensitive restructuring emerges in small and medium-sized firms. Thus, sustainability appears not as a uniform set of standards within firms, but as a multi-layered form of business model transformation conditioned by scale and position.

This theoretical-empirical relationship is presented in Table 5.3, which systematically summarizes the connections between sustainable business models, circular entrepreneurship, firm scale, and business model components.

Table 5.3 : Linking Theoretical Perspectives with Empirical Findings

Theoretical Perspective	Empirical Finding	SMEs	MNEs
Sustainable Business Models	Sustainability is embedded at varying depths across firms, shaping how business model components are reconfigured	Selective and component-level integration	System-wide and structurally embedded integration
Circular Entrepreneurship	Circularity emerges either through product-level design choices or system-wide operational restructuring	Product-based and design-driven circularity	Supply chain-wide and process-integrated circularity
Firm Size & Scale	Organizational scale conditions how sustainability pressures are internalized and transformed into business model change	Constraint-driven, reactive adaptation	Capability-driven, strategic transformation
Value Creation Logic	Value creation shifts from cost-efficiency toward lifecycle-oriented and durability-based design principles	Niche, product-focused value creation	Integrated, standardized, and scalable value creation
Value Delivery & Capture	Sustainability reconfigures supply chain coordination and cost structures, altering how value is delivered and captured	Compliance-based delivery with flexible cost balancing	Governance-driven delivery with efficiency and optimization gains

Source: Author's own elaboration based on empirical findings

To better illustrate how sustainability is implemented in practice and how it is reflected in business model transformation, Figure 5.1 presents a process-based conceptual model derived from empirical findings.

Figure 5.1: Sustainability-Oriented Business Model Transformation Process in the Turkish Fashion Industry

Source: Author's analysis based on primary data

The figure visualizes how sustainability practices are translated into business model transformation through firm-specific conditions, highlighting the differences between SMEs and MNEs.

When the cases examined are evaluated collectively, it becomes evident that the transition to a sustainability-oriented business model takes different forms depending on firm characteristics. The findings obtained in the context of the Turkish fashion industry indicate that sustainability is not a homogeneous adaptation process, but rather a multi-layered restructuring process that manifests with varying intensities across different components of the business model.

These findings necessitate a broader evaluation of sustainability-oriented business model transformation and a clarification of the theoretical contributions.

Conclusions

This study aims to examine how international firms operating within the Turkish fashion industry are transforming their business models toward sustainability and how this transformation is shaped by firm scale. By adopting a qualitative multiple-case analysis approach, the analysis conducted on five firms located at different stages of the value chain and of varying scales enabled a comparative examination of sustainability-oriented business model transformation within a single context.

The findings reveal that sustainability does not emerge as a homogeneous or standardized process within firms. Rather, sustainability takes shape as a multi-layered transformation process that varies as a result of the interaction between external pressures and internal firm characteristics. While regulatory frameworks, customer demands, and supply chain expectations create a common pressure point for firms, how these pressures are interpreted within the business model and in which areas they are reflected varies significantly depending on firm scale, organizational capacity, and position within the value chain.

One of the study's key findings is that sustainability is not limited to the adoption of specific practices but generates a logic of transformation that restructures the fundamental components of the business model. The cases examined demonstrate that sustainability transforms the mechanisms of value creation, value delivery, and value capture collectively. However, this transformation does not occur with equal intensity across all firms. In large-scale firms, sustainability is integrated into the business model in a more holistic and systematic manner thanks to more institutionalized structures, extensive resource capacity, and high coordination power, whereas in small and medium-sized enterprises, the transformation exhibits a more selective, gradual, and context-sensitive structure.

Comparative findings reveal that firm size is not merely a quantitative difference but a determining factor that qualitatively shapes transformation processes.Large firms have the

opportunity to address sustainability through an integrated framework in product development, supply chain management, and organizational processes. They also have the opportunity to utilize their governance potential to spread sustainability standards through their value chain. On the other hand, in SMEs, there are limited resources and higher dependence on external factors. This results in a more reactive, incremental, and focused approach to sustainability transformation in specific intervention areas.

The results show that international firms in the Turkish fashion industry are transforming their business models in line with sustainability principles, not by following traditional approaches, but through unique transformation paths in line with their sizes and value chains.

In this context, the study challenges the often-assumed notion of a uniform transformation process in the literature on sustainable business models, revealing that transformation occurs with varying depths and scopes across different firms. Sustainability-oriented business model transformation proceeds not through a linear transition toward a specific model, but rather through multiple, context-sensitive transformation pathways shaped by firm-specific characteristics. Furthermore, when evaluated from the perspective of circular entrepreneurship, it is observed that the logic of circularity manifests in different forms across firms. While circularity in SMEs is primarily shaped through product design and product lifespan, in large firms, a broader operational transformation emerges through supply chain coordination and process integration.

The Turkish fashion industry provides a critical context for observing these transformation dynamics. Highly integrated into European fashion value chains, with an export-oriented production structure, and simultaneously facing cost pressures and sustainability demands, Turkey creates an environment in which companies are compelled to rethink their business models in line with sustainability. In this context, the findings indicate that the sustainability

transformation is not merely an internal company process but is directly linked to a firm's positioning within global production networks.

From a managerial perspective, the findings suggest that sustainability should be treated not merely as a compliance requirement but as a strategic element that reshapes the fundamental logic of the business model. For large firms, this necessitates the integration of sustainability throughout the supply chain and its alignment with organizational processes; for SMEs, it becomes crucial to develop transformation strategies that are focused on specific areas and generate value within the constraints of limited resources. In both cases, designing sustainability in alignment with the core components of the business model is decisive for the effectiveness of the transformation.

This study also has certain limitations. The analysis was conducted within the context of a single country and based on a limited number of cases; this limits the generalizability of the findings. Furthermore, since the data relies heavily on interviews, studies supported by different data sources may yield more comprehensive results. In this sense, it is understood that further studies, including comparative studies, may be carried out in various contexts, allowing for a more profound understanding of the dynamics of the transformation process towards sustainability. Additionally, longitudinal studies may be carried out, providing a more dynamic vision, as they may analyze the evolution of the transformation processes. In conclusion, it is understood that the business model transformation towards sustainability in the fashion industry is not a linear process, moving in one direction. Rather, it is understood that the business model transformation towards sustainability is realized as a multi-layered and multi-dimensional restructuring process, depending on the scale and position of the business in the value chain, as well as its capacity to transform. This study has shown that the integration of sustainability into business models is not a unidimensional adaptation process but rather a restructuring one, moving through specific transformation paths depending on the

characteristics of the business. In this sense, sustainability is not understood as a specific application field in the fashion industry, but rather as a transformation dynamic that transforms the fundamental logic of the business model.

Bibliography

- Bansal, P. (2005) 'Evolving sustainably: A longitudinal study of corporate sustainable development', *Strategic Management Journal*, 26(3), pp. 197–218.
- Barrientos, S., Gereffi, G. and Rossi, A. (2011) 'Economic and social upgrading in global production networks: A new paradigm for a changing world', *International Labour Review*, 150(3‐4), pp. 319–340.
- Bick, R., Halsey, E. and Ekenga, C. C. (2018) 'The global environmental injustice of fast fashion', *Environmental Health*, 17(1), pp. 1–4.
- Bocken, N. M., de Pauw, I., Bakker, C. and van der Grinten, B. (2016) 'Product design and business model strategies for a circular economy', *Journal of Industrial and Production Engineering*, 33(5), pp. 308–320.
- Bocken, N. M. P., Short, S. W., Rana, P. and Evans, S. (2014) 'A literature and practice review to develop sustainable business model archetypes', *Journal of Cleaner Production*, 65, pp. 42–56.
- Boons, F. and Lüdeke-Freund, F. (2013) 'Business models for sustainable innovation: State-of-the-art and steps towards a theoretical framework', *Journal of Cleaner Production*, 45, pp. 9–19.
- Cachon, G. P. and Swinney, R. (2011) 'The value of fast fashion: Quick response, enhanced design, and strategic consumer behavior', *Management Science*, 57(4), pp. 778–795.
- Christopher, M., Lowson, R. and Peck, H. (2004) 'Creating agile supply chains in the fashion industry', *International Journal of Retail & Distribution Management*, 32(8), pp. 367–376.
- Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A. and Sheikh, A. (2011) 'The case study approach', *BMC Medical Research Methodology*, 11(1), pp. 1–9.

- Dean, T. J. and McMullen, J. S. (2007) ‘Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action’, *Journal of Business Venturing*, 22(1), pp. 50–76.
- Demil, B. and Lecocq, X. (2010) ‘Business model evolution: In search of dynamic consistency’, *Long Range Planning*, 43(2–3), pp. 227–246.
- Dyllick, T. and Hockerts, K. (2002) ‘Beyond the business case for corporate sustainability’, *Business Strategy and the Environment*, 11(2), pp. 130–141.
- Eisenhardt, K. M. (1989) ‘Building theories from case study research’, *Academy of Management Review*, 14(4), pp. 532–550.
- Elkington, J. (1997) *Cannibals with forks: The triple bottom line of 21st century business*. Oxford: Capstone.
- Ellen MacArthur Foundation (2017) *A new textiles economy: Redesigning fashion's future*.
- Euratex (2023) *Facts & Key Figures of the European Textile and Clothing Industry*. Brussels: Euratex.
- European Commission (2020) *A new Circular Economy Action Plan: For a cleaner and more competitive Europe*. Brussels: European Commission.
- European Commission (2022) *EU strategy for sustainable and circular textiles*. Brussels: European Commission.
- Fletcher, K. (2014) *Sustainable fashion and textiles: Design journeys*. London: Routledge.
- Geissdoerfer, M., Morioka, S. N., de Carvalho, M. M. and Evans, S. (2018) ‘Business models and supply chains for the circular economy’, *Journal of Cleaner Production*, 190, pp. 712–721.

- Geissdoerfer, M., Savaget, P., Bocken, N. M. and Hultink, E. J. (2017) 'The Circular Economy – A new sustainability paradigm?', *Journal of Cleaner Production*, 143, pp. 757–768.
- Geissdoerfer, M., Vladimirova, D. and Evans, S. (2018) 'Sustainable business model innovation: A review', *Journal of Cleaner Production*, 198, pp. 401–416.
- Gereffi, G. (1999) 'International trade and industrial upgrading in the apparel commodity chain', *Journal of International Economics*, 48(1), pp. 37–70.
- Gereffi, G. and Frederick, S. (2010) 'The apparel global value chain, trade and the crisis', *World Bank Policy Research Working Paper 5281*.
- Gereffi, G. and Lee, J. (2016) 'Economic and social upgrading in global value chains and industrial clusters', *World Development*, 80, pp. 209–221.
- Ghisellini, P., Cialani, C. and Ulgiati, S. (2016) 'A review on circular economy: The expected transition to a balanced interplay of environmental and economic systems', *Journal of Cleaner Production*, 114, pp. 11–32.
- Global Fashion Agenda (2023) *The Fashion CEO Agenda*. Copenhagen: Global Fashion Agenda.
- Hahn, R. and Kühnen, M. (2013) 'Determinants of sustainability reporting: A review of results, trends, theory, and opportunities in an expanding field of research', *Journal of Cleaner Production*, 59, pp. 5–21.
- Hart, S. L. (1995) 'A natural-resource-based view of the firm', *Academy of Management Review*, 20(4), pp. 986–1014.
- Hockerts, K. and Wüstenhagen, R. (2010) 'Greening Goliaths versus emerging Davids: Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship', *Journal of Business Venturing*, 25(5), pp. 481–492.

- Holden, E., Linnerud, K. and Banister, D. (2014) ‘Sustainable development: Our common future revisited’, *Global Environmental Change*, 26, pp. 130–139.
- İHKİB (Istanbul Apparel Exporters’ Association) (2023) *Apparel sector export performance reports*. Istanbul: İHKİB.
- ILO (International Labour Organization) (2015) *Guidelines for a just transition towards environmentally sustainable economies and societies for all*. Geneva: ILO.
- IPCC (Intergovernmental Panel on Climate Change) (2022) *Climate Change 2022: Mitigation of Climate Change (Working Group III contribution)*. Cambridge: Cambridge University Press.
- Karaosman, H., Morales-Alonso, G. and Brun, A. (2020) ‘From a supply chain to a supply ecosystem: The case of a sustainable fashion SME’, *Journal of Cleaner Production*, 246, 119056.
- Locke, R. M. (2013) *The promise and limits of private power: Promoting labor standards in a global economy*. Cambridge: Cambridge University Press.
- Lüdeke-Freund, F., Carroux, S., Joyce, A., Massa, L. and Breuer, H. (2018) ‘The sustainable business model pattern taxonomy—45 patterns to support sustainability-oriented business model innovation’, *Sustainable Production and Consumption*, 15, pp. 145–162.
- McKinsey & Company (2023) *The State of Fashion 2023*. New York: McKinsey & Company.
- Muñoz, P. and Cohen, B. (2018) ‘Sustainable entrepreneurship research: Taking stock and looking ahead’, *Business Strategy and the Environment*, 27(3), pp. 300–322.
- Murray, A., Skene, K. and Haynes, K. (2017) ‘The circular economy: An interdisciplinary exploration of the concept and application in a global context’, *Journal of Business Ethics*, 140(3), pp. 369–385.

- Niinimäki, K. et al. (2020) ‘The environmental price of fast fashion’, *Nature Reviews Earth & Environment*, 1(4), pp. 189–205.
- OECD (2011) *Towards green growth*. Paris: OECD Publishing.
- OECD (2020) *Integrating SMEs into global value chains: Policy principles*. Paris: OECD Publishing.
- Porter, M. E. and Kramer, M. R. (2011) ‘Creating shared value’, *Harvard Business Review*, 89(1/2), pp. 62–77.
- Purvis, B., Mao, Y. and Robinson, D. (2019) ‘Three pillars of sustainability: In search of conceptual origins’, *Sustainability Science*, 14(3), pp. 681–695.
- Republic of Turkey Ministry of Trade (2023) *Green Deal Action Plan and Sustainability Compliance Programs*. Ankara: Ministry of Trade.
- Rockström, J. et al. (2009) ‘A safe operating space for humanity’, *Nature*, 461(7263), pp. 472–475.
- Sachs, J. D. (2015) *The age of sustainable development*. New York: Columbia University Press.
- Sachs, J. D. et al. (2019) ‘Six transformations to achieve the sustainable development goals’, *Nature Sustainability*, 2(9), pp. 805–814.
- Schaltegger, S., Lüdeke-Freund, F. and Hansen, E. G. (2016) ‘Business models for sustainability: A co-evolutionary analysis of sustainable business model innovation’, *Organization & Environment*, 29(3), pp. 264–289.
- Stebbins, R. A. (2001) *Exploratory Research in the Social Sciences*. Thousand Oaks, CA: Sage Publications.
- Steffen, W. et al. (2015) ‘Planetary boundaries: Guiding human development on a changing planet’, *Science*, 347(6223).

- Teece, D. J. (2010) ‘Business models, business strategy and innovation’, *Long Range Planning*, 43(2–3), pp. 172–194.
- Textile Exchange (2023) *Materials Market Report 2023*
- TİM (Turkish Exporters Assembly) (2023) *Export data and sector reports*. Istanbul: TİM.
- Tokatlı, N. (2008) ‘Global sourcing: Insights from the global clothing industry—the case of Zara’, *Journal of Economic Geography*, 8(1), pp. 21–38.
- TÜİK (Turkish Statistical Institute) (2023) *Industrial production and labor statistics*. Ankara: TÜİK.
- United Nations Statistics Division (UNSD) (2023) *International Trade Statistics Database (UN Comtrade)*. New York: United Nations.
- UNEP (United Nations Environment Programme) (2011) *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. Nairobi: UNEP.
- UNEP (United Nations Environment Programme) (2020) *Sustainability and Circularity in the Textile Value Chain*. Nairobi: UNEP.
- UNEP (United Nations Environment Programme) (2021) *Progress on Water-Use Efficiency*. Nairobi: UNEP.
- United Nations (2015) *Transforming our world: The 2030 Agenda for Sustainable Development*. New York: United Nations.
- WCED (World Commission on Environment and Development) (1987) *Our Common Future*. Oxford: Oxford University Press.
- Yin, R. K. (1984) *Case study research: Design and methods*. Beverly Hills, CA: Sage Publications.
- Yin, R. K. (2014) *Case study research: Design and methods*. 5th edn. Thousand Oaks, CA: Sage Publications.

Appendices

Appendix 1. Interview Questions and Guide

The following semi-structured interview guide was used to collect data from participating firms. The questions were designed to explore how sustainability considerations influence business model transformation in the fashion industry, particularly within the Turkish context.

INTERVIEW

Interviewee and Company Information

- Current position in the company
- Years of experience in the fashion industry
- Role within the global fashion supply chain (e.g., manufacturer, brand, supplier, retailer)
- Approximate number of employees
- Main markets of operation (e.g., Turkey, Europe, global)

  Participation in any sustainability-related certification or program

Main Interview Questions

1. When did sustainability first become a strategic concern for your company, and under which conditions did it gain importance? What were the main drivers of this transformation (e.g., international buyers, regulations, consumer expectations)?

2. Did sustainability requirements lead to concrete changes in your business model? In particular, what types of transformations occurred in production processes, materials used, or product development approaches?

3. How have sustainability practices affected your supply chain relationships or partnerships? Did this lead to changes in how value is created or delivered?

4. What organizational or operational changes occurred within your company while implementing sustainable production practices (e.g., production technologies, resource use, organizational structure)?

5. How have sustainability practices affected your cost structure, competitive advantage, or market positioning?

6. Do you have any additional reflections on the future of sustainability transformation in the Turkish fashion industry?

Appendix 2. Interview Transcripts

Appendix 2.1. Participant 1 Interview Transcript (Saracoglu Wear)

Participant Code: P1

Researcher: R

R: Hello Mr. Ogul, welcome. How are you?

P1: Hello Ilayda, thank you, I'm doing well. How are you?

R: I'm doing well too, thank you. As I mentioned earlier, I am a Master's student in International Management at the University of Pavia, and I am currently working on my thesis. My research focuses on sustainability-driven business model transformation in the fashion industry, and I have specifically chosen to focus on firms operating in Turkey, given my familiarity with the country's position in this sector. In this context, your insights are extremely valuable for my research.

P1: Yes, I completely understand. I'm very glad that you reached out to me on such an important topic. I'd be happy to help if I can.

R: If it's okay with you, I would like to start with some background. Could you tell me a bit about your role within the company and your experience in the sector?

P1: Of course. We are a family business, and textile production has been part of our work for many years. To be honest, I have been involved in this business since childhood. I have been working actively for about 10 years, and currently I manage export operations. As a company, we produce for European and Gulf markets. However, our structure is slightly different from a traditional manufacturing model. We do not only manufacture. We are involved in the entire process, including collection development, fabric selection, production organization, and logistics. So, rather than being just a manufacturer, we position ourselves as a partner that manages the process for our clients.

R: So, you are actively involved throughout the supply chain.

P1: Yes, definitely. In fact, for some clients, we are positioned more as a solution partner rather than just a manufacturer.We organize the entire process, starting from the product idea all the way to delivery to the client's warehouse. We also follow up on feedback after delivery and reflect it in future production.This role has evolved over time. Initially, we were only producing, but as relationships with clients deepened, our role expanded.

R: How would you define your company in terms of size?

P1: In classical terms, we are an SME. Our number of employees is limited. Our approximate number of employees varies between 35-40. However, our production model is more network-based. A significant portion of production is outsourced. Internally, we mainly focus on sample development and small-scale production. This provides flexibility, but at the same time, if the supply chain is not managed properly, it can create serious risks.

R: How did sustainability emerge as an issue for your company?

P1: To be honest, sustainability was not a very visible topic for us when we were operating in the domestic market.The real transformation started when we shifted towards export. When you start working with European clients, expectations are no longer limited to the product itself. They also want visibility over the process.At first, this was quite challenging because we were operating with a more flexible system. However, over time, we realized that these demands were not just customer preferences, but part of a broader systemic shift.

R: So, would you say it was mainly driven by external pressure?

P1: Yes, there is definitely a form of pressure. But it is not only pressure; it also has a guiding effect. It starts as an obligation, but then you begin to see the advantages it brings. For example, you gain better control over processes, make fewer mistakes, and most importantly, you can offer a more reliable structure to your customers.

R: How would you define your understanding of sustainability?

P1: We do not see it only as an environmental issue. We see it more as process management. For us, it is important that a product is traceable from beginning to end. Which materials were used, where it was produced, and which stages it went through. If you can clearly present this information, you are already covering a significant part of sustainability. Of course, recycling and energy use are also important, but for us, the first step was bringing processes under control.

R: How did this approach affect your business model?

P1: The biggest change was the systematization of processes.Previously, we had a faster but less controlled structure. Now, everything is more documented and traceable. For example, we now create a kind of “product specification” for each item. The fabrics, accessories, and production stages are clearly defined. Initially, this created additional workload, but over time, we started to see the benefits.

R: What kind of benefits did you observe?

P1: The biggest benefit is control. When a problem occurs, we can go back and analyze the process. This was much more difficult before. It also changed communication with customers. Now we are not only saying “we produced the product,” but also explaining “how we produced it.” This creates trust.

R: What kind of changes occurred in your supply chain?

P1: The biggest change was in supplier selection. Previously, we mainly focused on price and quality. Now, certification and reliability have also become important criteria. This is particularly evident in fabrics and raw materials. Our suppliers need to meet certain standards. We do not have direct certification as a company, but we manage this process through our suppliers.

R: Did this affect your flexibility?

P1: Yes, to some extent. Because your options become more limited. You cannot work with every supplier. However, on the other hand, it creates a more reliable system. So, you trade some flexibility for more control.

R: What was the impact on your cost structure?

P1: In the short term, it has a cost-increasing effect. Certified materials, process tracking, and organizational adjustments all create additional costs. This is particularly challenging for small firms because resources are limited. That is why it is important to implement these changes gradually. Most companies follow this approach.

R: How do you see it in the long term?

P1: In the long term, it becomes more balanced. As processes stabilize, errors and returns decrease, which helps offset some of the costs. However, it is not a cost-free process. It always requires investment.

R: What kind of changes occurred internally in the organization?

P1: The most important change is awareness. Employees have started to understand processes better. We also tried to establish simpler and more understandable systems. Instead of complex structures, we created processes that everyone can follow. This improved efficiency.

R: Can you give examples of operational changes?

P1: Yes, we made some small but effective changes. We became more systematic in waste management and tried to reduce paper usage. We also adopted more efficient solutions in terms of energy use. But honestly, the most important change for us was not these individual actions, but the overall transformation of the system.

R: How do you evaluate sustainability transformation in the Turkish fashion industry?

P1: In Turkey, this is still a developing area.Many companies see sustainability as a cost and therefore approach it cautiously.However, for companies that want to operate in international markets, it is no longer optional.I believe that over time, everyone will adapt to this process, because the system is moving in that direction.

R:Thank you very much, you shared very valuable insights.

P1: Thank you, I hope it will be useful.

Appendix 2.2. Participant 2 Interview Transcript (DAMAT TWEEN)

Participant code : P2

Researcher: R

R: Hello Ms. Busra, welcome. How are you?

P2: Hello Ilayda, thank you, welcome as well. I am fine, thank you. And you?

R: I am fine too, thank you very much. First of all, thank you very much for taking the time today. I would like to briefly introduce myself again. My name is Ilayda Yesilkaya, and I am a Master's student in International Management at the University of Pavia. I am currently writing my thesis on sustainability-oriented business model transformation in fashion. I am collecting data by interviewing firms operating in Turkey and also present at a global level. It

is very valuable for me to hear from you about the approach of a strong and leading brand in the sector such as Damat. I am recording the interview. Do you consent to that?

P2: Yes, yes, I consent, Ilayda. You can record it.

R: The information will only be shared with my thesis supervisor and the graduate thesis committee, so please do not worry about that. If it is also suitable for you, I would like to begin with a short company introduction and some information about you. What is your current position in the company, and how long have you been working in the fashion sector?

P2: I have been actively working in the fashion sector for about 9 years now. But since this is our family company, I have actually been involved in the company since I was 5 years old, so I can say that I grew up in this business. Professionally, I entered this process 9 years ago, when I suspended my university studies for one year and started working. Then I returned to university a year later, but I arranged my classes over 2 days of the week and worked at the company for the remaining 3 days.

During those first 2 years, I began with rotation across all departments. I worked in accounting, finance, fabric, production, architecture, design, and later in e-commerce. After that, I took on responsibilities in the design department. For the last 3 to 4 years, I have been actively heading the marketing department.

For many years, men's clothing was our main focus as a company, but with our latest brand, we have now entered womenswear for the first time. All marketing processes are managed by me and my team. Orka Holding is a company that has expanded globally with 4 brands and has made serious investments in international markets. We have a global structure with approximately 200 domestic stores and 200 international stores.

R: That is actually very impressive. You have been involved in the business from A to Z from the very beginning. I think that being present in every part of the business from such a young age, regardless of category or department, has made a very important contribution to the

position you are in today. I think that is extremely valuable. Whether it is a family business or not, learning the business from A to Z is a major advantage.

Considering the size of your structure both in Turkey and abroad, as you just mentioned, how would you position your company within the global fashion supply chain? For example, are you a manufacturer, a brand owner, or a supplier? Because on the one hand, Damat is a brand, but on the other hand, you also carry out your own production. How would you define yourselves within this structure?

P2: We are both a manufacturer and a brand-oriented company. We produce approximately 30% of our own collections ourselves and outsource 70% through subcontracting. We have 3 factories in Giresun. These factories are mainly export-oriented, but they also cover around 30% of our own production side. So, here, we produce both for our own brand and for brands around the world.

At the moment, in our first and second factories, we have installed solar panels from a sustainability perspective, developed practices aimed at reducing water consumption, and included fabric waste in the recycling process by giving it to NGOs in the area. These waste materials can be transformed into different products such as blankets, pillowcases, and bed sheets.

Our third factory, however, will be a fully digital factory and is planned to open at the end of 2026. Our main goal there is to eliminate overproduction and move towards personalized production. In these factories, we produce suits, trousers, and shirts. Therefore, we have designed an artificial intelligence system through which we can take customers' measurements. This system is currently active. Through this system, we are actually generating a data-based prototype of Turkish male body measurements. In this way, we aim to increase production accuracy. At the same time, by producing the product the customer wants

in the size they want, we aim to manage our stock through a smart stock logic and reduce overproduction.

R: The idea of a fully digital factory is truly very impressive. As someone who would like to work in this field, I was very excited to hear that. I hope I will have the opportunity to observe it in person one day. You mentioned both domestic and international stores earlier. Looking at it more broadly, is Turkey your strongest market? Or are there specific markets in Europe or another region that also stand out?

P2: Our main business is currently entirely in Turkey. Among those 200 stores, some are operated directly by us, while others are run through franchise arrangements. But after Turkey, we also have a very significant operation in the United Arab Emirates and in Europe.

R: Damat is truly a global brand. You may not be able to share exact figures, but approximately how many employees do you have? If we think in terms of white-collar, blue-collar, factories, stores, and headquarters, what kind of structure are we talking about in Turkey?

P2: Including factories, stores, headquarters, and the logistics warehouse, we have approximately 2,500 employees in total.

R: That is really a very large structure. Managing it must require a very strong system on the one hand, and on the other hand, I am sure it must also be quite challenging. You also mentioned certain initiatives and certification processes earlier. Does your company operate within any sustainability-related certification or program framework?

P2: Yes. We received certification from ISO. Then we received an award from the Union European Sustainability Forum. At the moment, applications are still ongoing both on the production side and at the company level, at the holding level.

R: We know that these certifications involve very serious requirements and obligations. They also require demanding processes both financially and operationally. That is why having

multiple certifications is really important. I would like to go a bit deeper into sustainability. Damat is a very well-established brand and has held a leading position in menswear in Turkey for many years. How did sustainability first emerge within your company? Was it a strategic decision taken internally within the company? Or was it a process shaped by consumers, the European market, or broader international expectations? This is what I am especially curious about.

P2: We started investing in sustainability in 2013. Because we are a global brand, we naturally have to follow trends and expectations around the world. So we reached this awareness and started asking ourselves what we could do in this area.

At that time, resources in Turkey were very limited. For that reason, we started producing suits with sustainable fabrics together with fabric suppliers who shared the same vision as us. Of course, this was very new for Turkey. We even received reactions from consumers. For example, when we explained that some suits were made from recycled plastic bottles, we received feedback like, “What do you mean, are we going to wear plastic bottles?” But we maintained our consistency on that issue.

Over time, the scale of the matter changed. Because sustainability is not just a PR or marketing game. It is truly one of the fundamental issues being discussed worldwide. The textile sector is also one of the most polluting sectors in the world. There is a very serious amount of textile waste and very serious water consumption.

Since we do not produce denim, our water use is not that high. But for us, energy consumption and textile waste are particularly prominent. So we addressed both the social sustainability side and the production side. At the same time, we realized that sustainability progresses very closely alongside digital transformation. For this reason, by investing in digital transformation, we saw that we could generate a much greater impact on the

sustainability side as well. We have been making investments in these areas for approximately 12 years now.

R: The special fabric types you mentioned are actually very important. Sometimes people approach the type or content of fabric with prejudice, but as you said, the implications are much broader than that. I assume this must also have led to concrete changes within the company, because such a process requires special materials, special machinery, perhaps specialized teams, and operations that require knowledge. At the same time, you also work with different textile firms. Since sustainability was not very widespread in Turkey for a long time, suppliers may initially have had some hesitations as well. How did this process affect your relationships with suppliers?

P2: Exactly. In this respect, the textile sector is a little more fortunate. All of our fabric suppliers are exporters. Turkey has a very serious textile export volume. Fabric suppliers also started transforming themselves in parallel with us. The same is true for the manufacturers we outsource to. Suppliers working with large groups such as Inditex and H&M had already gained a certain level of standardization and discipline.

But in the last 3 years, this transformation has accelerated much more naturally. Before that, it was much more limited. We also could not produce the entire collection in this way. We progressed more through capsule collections, at the level of 5–10%, with more specific work. Sometimes we made this possible by working with different manufacturers or suppliers we did not normally work with.

But when it remains at that level, of course it can look like only a PR tool. Later, with the Green Deal, as responsibilities and tax obligations came into effect, and because textile is already a strong export sector for Turkey, the whole ecosystem began to transform. Many consultancy companies, strategists, and guiding structures emerged. Once the ecosystem began to change, things became easier. At this point, to be honest, we do not experience any

serious difficulty in this area. In fact, many of our suppliers can now guide us without us even asking them. We are in a much better place now. Of course, it could still improve, but where we are now is very different from where we were before.

R: Yes, seeing that suppliers are now taking an active role and are consciously involved in the process is really very valuable. With this transformation, what kinds of organizational and operational changes have you made? For example, in some firms, sustainability departments are established; in others, production machinery changes. In your case, what concrete changes took place over these 12–13 years?

P2: First of all, the efficient use of resources became a fundamental issue for us. We started using solar energy as an energy source by installing solar energy systems in the factories. We saw a very serious impact from this. On the production side, we also entered certain certification processes connected to this.

Later, on the logistics side, together with LogD, we converted the boxes used in transportation into a system made of recycled material. In this way, we significantly reduced the consumption of trees, water, and petroleum. We call these "smart boxes." Their size can be adjusted according to need. They are easy to transport. When they are returned, they can become very thin again. This also created serious efficiency in logistics, storage, and space utilization.

Apart from this, we greatly expanded the use of artificial intelligence and spread it throughout the company. We especially digitalized the design department. One of our biggest problems was the preparation of the technical file for the product before it went into production. This used to take a lot of time. At the moment, we have developed an artificial intelligence platform called Orka Studio. Once the designer enters the product into the system, either as text or as an image, the production file for that product is prepared directly by artificial intelligence.

At the same time, the product's digital identity is also created. Before moving into production, we normally present the collection to management. In the past, we used to create 50%, sometimes 60%, or even 70% more samples than the products that would actually go into production, and then we would eliminate them before deciding. This meant an extremely heavy sample load and a very high cost.

Now, we make the first stage of the collection presentation digital. We first present it digitally to management. If the product is genuinely going to be produced, only then do we move on to the final sample. After that, it goes into production. This has provided a very serious optimization in terms of both time and samples. For example, if we previously had 2,000 samples, we can now reduce this to 1,200 through digital pre-selection. This means that hundreds of samples are not produced at all.

R: So it is almost a reduction of nearly half.

P2: Exactly. So that area has been optimized very well. In addition, we are now developing another artificial intelligence system. This system tries to calculate how much waste a fabric will generate before production and what the most optimal measurements should be for that product. In this way, we aim to reduce production errors and achieve more accurate production.

Besides this, we also use artificial intelligence in other departments. In accounting, architecture, and e-commerce, many tasks that used to be carried out manually and required human labor are now progressing with AI support.

For example, product descriptions on the e-commerce site are now created using artificial intelligence. The system retrieves the product information from the ERP system and automatically transfers information such as the characteristics of the fabric type, how it should be maintained, and how it should be cleaned.

In addition, we developed a system in our e-commerce platform that recommends the correct size to the customer. When the customer enters their body type, height, and weight, the system estimates the most suitable size for our products. In this way, we reduced our return rate from around 25% to around 6%.

R: That is truly a win-win situation.

P2: Definitely. And in fact, this is a very strong sustainability story. Because returns mean re-shipping, re-packaging, fuel use, petroleum consumption, and time. That is why the impact is much bigger than it seems.

Apart from that, we used to conduct all our training physically, including store opening training and internal company training. Later, we introduced an e-learning and artificial intelligence system. All our training, exams, and internal communication now continue through that system. This also reduces paper consumption at headquarters.

We are also constantly engaged in R&D. We are working on how to make store equipment from recycled materials. At the moment, we are in discussions with a company. Outdoor billboard materials become waste after use. We found a producer that manufactures furniture from those recycled materials. We will gradually start working with them as well.

R: It really should not be thought of only in terms of textiles. It is an approach that affects everything from A to Z. As far as I know, you also have an application on the production side, something like a closed-loop water system where water is reused. I had read about it and found it very impressive.

P2: Yes. The water used during production is treated through that system and returned to use. In this way, we minimize water waste. In any case, our production's water consumption is much lower than that of jeans or dyeing factories. But despite that, we still apply the logic of circular consumption there as well and reuse the water.

R: This transformation must also have had material and intangible effects on the company. From the outside, it looks very beneficial, but since you are on the management side, you must observe more clearly its effects on performance, cost, and competition. Did this transformation also have a positive financial effect for you?

P2: Absolutely, one hundred percent. In terms of cost, it did not create an unmanageable burden for us. But on the consumer side, it took time for the value of this transformation to be recognized. Because we started this process very early.

However, in the long term, all of these projects generated very serious efficiency and optimization. Revisiting all existing processes and thinking about how to make everything shorter, smarter, and more optimized made a very important contribution to the company.

And we are a brand that has to compete in international markets. For that reason, this transformation also increased the value of the brand. Today, Gen Z does not consume a brand that has no vision or mission. They ask, "What does this brand give me? What does it mean for my world?" If you want to create a community, you need to have certain principles. Sustainability is exactly that kind of issue for us. It creates a more premium perception and also builds a more conscious customer base. That is why it became an inevitable direction for us.

R: Yes, Damat is a global brand, but at the same time it is also a Turkish brand that we are proud of. Looking at it from a broader perspective in Turkey, how do you see the future of sustainable transformation in the fashion sector? What more should be done?

P2: I think the most important thing is education and awareness. For example, for 2 years, at Istanbul Modern, we explained paper recycling to 7,500 primary school students. We had our own workshop there. With the paper we provided, the students experienced the recycling process themselves. That is why raising conscious individuals is very important. I think sustainability should definitely be taught in schools. Everything starts there.

Secondly, state incentives are very important. Companies like us, manufacturers, and suppliers all need support. Thirdly, NGOs need to become more visible and inter-sectoral collaborations need to increase. When these three things come together, Turkey can move much faster. We already have adaptation capacity because we are an export-oriented country. But we need stronger driving forces from behind.

R: Yes, there needs to be both a material and moral force that motivates this process. I completely agree. The perspectives you shared have been very valuable for me and will be very useful for my research.

P2: I will also send you the report. I would be very happy to do so. We have a report prepared by our sustainability department, and I can share it with you.

R: I would be very happy. Because most people in my department chose Italy as their country, whether Turkish or international students. I specifically wanted to choose Turkey, because I think Turkey is very strong in fashion and textiles. In Italy too, I see "made in Turkey" in many places. I really think we are one of the leading countries in the world in textiles. In fact, in my opinion, we are in the top five. Since I also want to work in this sector in the future, this study has given me a very valuable perspective before entering professional life. Thank you very much for taking the time.

P2: Thank you. In fact, thank you for including us in such an academic study.

Appendix 2.3. Participant 3 Interview Transcript (Bershka)

Participant Code: P3

Researcher: R

R: Hello Ms. Idil, welcome. How are you?

P3: Hello Ilayda, thank you, welcome. I'm doing well, thank you. How are you?

R: I'm also doing well, thank you very much. First of all, thank you very much for taking the time today. This interview will be part of my master's thesis, which examines sustainability

driven business model transformation in the fashion industry. The interview is being recorded, as we discussed before. May I have your confirmation again?

P3: Yes, I confirm.

R: First, let's start with you. What is your current position in the company, and how long have you been working in the fashion industry?

P3: I work as a regional manager for Bershka in Antalya. I have been part of Bershka for about three to three and a half years, but my experience in the fashion industry goes further back. I have approximately 14-15 years of experience in the sector. I started my career at Stradivarius, which is part of the Inditex group. At that time, I had the opportunity to experience how the fast fashion model operates, how quickly collections change, and how dynamic retail operations can be.

After that, I moved to Penti and worked there for about five years. During that period, I advanced to the position of country manager abroad, which allowed me to be involved not only in store operations but also in more strategic and operational decision making processes.

Later, I had to return to Turkey and took a break from the sector for a while, as I wanted to step away from retail for some time. However, the fashion industry is very dynamic, and I found myself wanting to return, so I continued my career with Bershka. In my current role, I have the opportunity to closely observe both operational processes and consumer behavior. This is particularly valuable when it comes to understanding how changes related to sustainability are reflected at the store level.

R: That's very interesting. How would you position Bershka within the global fashion supply chain?

P3: Positioning Bershka solely as a retail brand would actually be incomplete. This is because Inditex's business model is very different from a traditional retailer model. Within Inditex, design, production, logistics, and retail processes are fully integrated rather than operating

separately. In other words, the creation of a collection, its distribution to stores, and its adaptation based on sales performance all occur within a single system.Within this system, Bershka is positioned as a brand that targets a younger audience, rapidly captures trends, and in many cases even shapes them. Its collaborations with influencers, its connections with music and cultural projects, and its strong presence on social media transform the brand into more than just a product selling entity it becomes a lifestyle brand.Therefore, Bershka should be seen as a combination of a brand, a retail network, and an active player within the global fashion supply chain.

R: What kind of structure does Bershka have in Turkey?

P3: In Turkey, we have more than 30 stores, and the total number of employees, including stores and headquarters, is around 600–650. However, an important point is that although operations are carried out locally, the decision-making mechanism is global. Collections, production strategies, and sustainability policies are centrally determined. Turkey, on the other hand, plays a dual role in this system; it is both an important market and a very significant production hub.

R: And in terms of markets?

P3: The European market is still dominant. This is due both to the company's origins and to stricter regulatory frameworks in Europe. However, countries like Turkey are strategically important not only in terms of sales but also in terms of production.

R: Could you elaborate on Bershka's sustainability practices?

P3: I would say that in recent years, sustainability has become fully embedded in the core of the business model. For example, there are the "Join Life" collections. These collections are not just product lines but also reflect the company's sustainability approach.In these

collections, materials such as organic cotton and recycled polyester are used. But beyond materials, production processes are also optimized. So the focus is not only on “better fabrics” but also on “less resource-intensive production.” In addition, there are textile collection programs in stores. Customers can bring their used garments, which are then sorted. Some of these products are redirected for reuse, while others are recycled and reintegrated into the production cycle. This is very important because the fashion industry traditionally operated with a linear model: produce, sell, and discard. Now, this model is gradually evolving into a more circular structure.

R: What triggered this transformation?

P3: There are multiple factors, but there has been a significant shift particularly in the last five to six years. First, consumer behavior has changed. Especially younger generations are no longer only interested in the product itself but also in the values that a brand represents. Second, European Union regulations have played a major role. Issues such as carbon footprint, production transparency, and environmental impact are becoming mandatory considerations. Third, there is the inherent reality of the industry. The fashion industry is one of the most polluting industries in the world, and this can no longer be ignored. The pandemic also accelerated this process, as consumption increased significantly, making it even clearer that the existing model was not sustainable.

R: How did this process transform the business model?

P3: The most significant transformation occurred in production and inventory management. Previously, the fast fashion model involved much higher production volumes. However, today the system is much more data driven. Demand forecasting has become much more important, and production is carried out in smaller batches. This significantly reduces overproduction. At the same time, the product lifecycle has become an integral part of the business model. In

other words, it is no longer only about producing and selling, but also about planning what happens to the product afterward. This represents a shift from a linear model to a more circular business model.

R: What kind of changes have occurred at the store level?

P3: There have been very significant changes. For example, plastic has been completely eliminated. We now only use paper bags, and they are charged. This not only reduces consumption but also raises awareness among customers. Additionally, stores are now designed to be more energy efficient. LED systems, energy control mechanisms, and reduced resource usage are all part of this transformation. Paper consumption has been reduced, and communication has largely been digitalized.

R: How has the supply chain been affected?

P3: It has been affected quite significantly. Suppliers are no longer evaluated solely based on cost. Production processes, materials used, and environmental impact have become much more important criteria. Additionally, part of the production has been shifted to geographically closer countries such as Turkey. This provides advantages in terms of both speed and reduced carbon emissions. Turkey plays a very important role in this context.

R: How has this transformation affected performance?

P3: It may appear costly at the beginning, but in the long run, it provides significant efficiency gains. Less overproduction, fewer returns, and better planning all contribute to improved performance. However, the most important impact is on brand image. Today, consumers pay close attention to the values that a brand represents, and this creates a strong competitive advantage.

R: How do you see the future of this transformation in Turkey?

P3: Turkey is already a very strong country in terms of production. Its proximity to Europe, fast production capabilities, and flexible structure are major advantages. However, there is still room for development in terms of sustainability. If this production strength can be combined with sustainability practices, Turkey can achieve a much stronger position within the global fashion supply chain. Even today, many global brands produce in Turkey. But from now on, competition will not be based solely on cost it will increasingly be based on sustainability.

R: You have shared very valuable insights. As someone who personally shops from this brand quite often, this gave me a completely new perspective from a consumer point of view.Thank you very much.

P3: Thank you, Ilayda. I hope it was helpful for you. I wish you success.

Appendix 2.4. Participant 4-5 Interview Transcript (BENETTON)

Participant Code: P4-P5

Researcher: R

R: Hello Ms. Gunes, Ms. Tugba, welcome. How are you?

P5: Hello Ilayda, thank you, nice to be here. We are doing well, thank you.

P4: How are you?

R: I am also doing well, thank you very much. First of all, thank you very much for taking the time today. This interview will be part of my master's thesis, which examines sustainability oriented business model transformation in the fashion industry. The interview will be recorded

and used only for academic purposes. If it is also convenient for you, I would like to kindly ask for your consent again.

P4: Of course, no problem at all, we give our consent.

P5: Yes, that is perfectly fine for us as well.

R: Then, if it is okay, I would like to start with you. Could you briefly tell me about your current positions and your experience in the fashion industry?

P4: Of course. I am Gunes Sonsaat, and I work as the Human Resources Manager at Benetton. I have been in this position for about three years, but my experience in the fashion retail sector dates back to 2008. During this time, I have worked in different brands and had the opportunity to closely observe how organizations evolve, how employee expectations change, and how topics such as sustainability have become more central over time. Since we are on the human resources side, we approach sustainability not only from an environmental perspective but also from a social perspective. Issues such as employee rights, equality, well-being, and working conditions are also an important part of this transformation.

P5: Hello again, I am Tugba Balcı, Marketing Manager. I have been working within Benetton for about five years, and overall I have more than ten years of experience in the fashion retail sector. From a marketing perspective, I can say that there has been a very clear transformation in recent years. Previously, communication was entirely product-oriented, but now the values represented by the brand are much more prominent. At this point, sustainability is no longer just a communication element, but a factor that directly defines the identity of the brand.

R: That is really interesting. How would you position Benetton within the global fashion supply chain?

P5: Defining Benetton only as a retailer would be insufficient. Because we are a brand owner, we manage design processes, and we also operate within and coordinate a global supply chain. We do not carry out production entirely in-house, but we strictly control all production processes. Our suppliers must comply with specific standards. Therefore, we are actually both a brand, a retailer, and an organization that manages a global supply chain.

R: Could you provide some information about the scale of your company and the markets you operate in?

P4: In Turkey, we have approximately 400 employees at the company level.

P5: Globally, we have around 5,000 employees, and this number continues to grow. We operate in a very wide geography including Europe, Turkey, the Middle East, South Africa, Russia, Asia, India, and Latin America. This wide structure transforms sustainability from a local issue into a global strategy.

R: Which certifications and programs does your company participate in regarding sustainability?

P5: This is a very comprehensive area for Benetton. Since 2017, we have been a member of the Better Cotton Initiative. In addition, we are part of the Sustainable Apparel Coalition and we use the Higg Index. We also joined the Greenpeace Detox program. Beyond that, we have certifications such as Responsible Down Standard, Organic Content Standard, Recycled Claim Standard, and Woolmark. On the packaging side, we use FSC-certified paper, and since there is no suitable production in Turkey, we source these materials from Italy. We bring all these processes together under the Green B framework, which represents the overall sustainability strategy of the company.

R: It seems that Benetton takes this issue very seriously. When did sustainability become strategic for your company?

P5: Actually, sustainability is part of our DNA. From the very beginning, there has been a strong sense of social responsibility within the brand. However, the operational transformation started especially with the Greenpeace Detox program in 2013. From that point onward, sustainability became a factor that directly influenced production processes. After that, everything from supplier selection to logistics began to change. The expectations of the new generation of consumers also accelerated this transformation.

R: How did this transformation affect your business model?

P5: It had a very significant impact. Previously, there was a linear model: produce, sell, and that was the end of the process. But now there is a shift towards a circular model. The selection of raw materials has completely changed. Sustainable cotton and recycled materials have become standard. At the same time, there is a focus on increasing product durability and extending product life cycles. This is gradually moving us from a fast fashion model toward a more slow fashion-oriented approach.

R: How has the supply chain been affected?

P5: There is no longer a purely cost-oriented system. We do not work with suppliers who do not meet sustainability criteria. In addition, there has been a geographical shift in production. There is a movement from the Far East toward Turkey and the Mediterranean region. This provides advantages in terms of both speed and carbon emissions. Transparency has also become very important, and we openly share our supplier lists.

P4: From an organizational perspective, sustainability has become a separate department directly connected to top management. At the same time, regular data is collected from all

countries. Metrics such as carbon footprint and energy consumption are continuously monitored.

P5: In production, digital sampling systems, reduced chemical usage, and new technologies have been implemented.

R: What kind of impact has this transformation had in terms of cost and competition?

P4: Yes, initially costs increase because more expensive raw materials are used. However, new technologies also provide operational efficiency.

P5: At the same time, this transformation differentiates the brand. Competition is no longer based only on price. Consumers now evaluate the values of the brand, and this creates a significant competitive advantage.

R: What are your thoughts on the future of sustainability transformation in the fashion industry in Turkey?

P4: Turkey is actually at a very critical point in this regard because it is a very strong production country. Since we produce extensively for Europe, we have already had to comply with certain standards. In that sense, this transformation in Turkey did not start entirely from internal motivation. When we look back 10–15 years, sustainability was mostly driven by the pressure of global brands. A foreign brand would come and say, "I will produce with you, but you must comply with these standards." But today, this has completely changed. Now there is awareness not only among producers but also among brands and consumers.

P5: Yes, and I think the most important turning point is this: sustainability is no longer a choice, it is a necessity. Especially with European Union regulations, this has become very clear. Since a large portion of Turkey's exports goes to Europe, any producer who does not

comply with these regulations is automatically excluded from the system. So it is no longer “it would be good if we do it,” but rather “if we don’t do it, we cannot survive in the market.”

P4: Exactly. And this creates both a risk and an opportunity for Turkey. Because we have very strong production capabilities, but we must progress at the same speed in terms of sustainability.

P5: Also, competition itself has changed. Previously, competition was entirely cost-based. But now countries and brands that can produce sustainably are becoming more prominent. Turkey has an advantage here because it can produce quickly and is geographically close to Europe. If this advantage is combined with sustainability, Turkey can reach a much stronger position in the global fashion supply chain.

P4: At the same time, consumer behavior has also changed significantly. People are no longer just buying products; they are also buying the story behind the product. Questions like “Where was this product made? Who produced it? How was it produced?” have become much more important.

P5: And especially Generation Z is very decisive in this regard. For them, sustainability is not an added value, but a requirement. Therefore, brands operating in Turkey must adapt to this transformation.

P4: In summary, Turkey has already made progress in this area, but this transformation will accelerate much more in the coming period. And this is no longer an option; it is a necessity of the system.

R: Thank you very much, this was extremely valuable for me. Speaking with leading professionals in the industry like you is truly important for my research.

P4: Thank you so much for it, it is our pleasure.

P5: We hope it contributes to your thesis. Good luck.

Appendix 2.5. Participant 6 Interview Transcript (SAILLAKERS)

Participant Code: P6

Researcher: R

R: Hello Mr. Emirhan, welcome. How are you?

P6: Hello, welcome Ilayda. I'm doing well, thank you. How are you?

R: I'm doing well too, thank you very much. First of all, I would like to sincerely thank you for taking the time today. This interview will be part of my master's thesis and will be used only for academic purposes. I will record the interview. Do you give your consent?

P6: Of course, no problem, I approve.

R: If you'd like, let's start with you. What is your current position in the company and how long have you been working in the fashion industry?

P6: Of course. I have been working as an executive board member at Saillakers for about four years. However, my background in the industry goes much further back because, as I mentioned, I was essentially born into this business. Our company is a family business founded in 1958. My grandfather started as an apprentice and progressed through a traditional master-apprentice system. For this reason, production in our company is not only a technical activity but also a form of craftsmanship. I personally grew up inside the workshop environment. From a very young age, I observed the production process closely how leather is cut, stitched, shaped, and transformed into a final product. This has had a significant impact on my perspective today. When I make decisions at the managerial level, I am not approaching them purely from a theoretical standpoint. I understand their direct implications on production, including time, cost, feasibility, and quality.

R: That is indeed a very valuable advantage.

How would you position your company within the global fashion supply chain?

P6: Our business model does not fit into a single traditional category. We are neither solely a manufacturer nor purely a brand. Instead, we operate within a hybrid structure. We produce our own products, which makes us a manufacturer. At the same time, we have our own brand identity and sell directly to consumers. In addition, we engage in wholesale operations and operate actively in global e-commerce channels. However, what is more important is how we define ourselves conceptually. We do not define our company through a single product category such as footwear. Instead, we define ourselves through the material we specialize in leather. This is why we operate both in leather footwear and leather apparel. This material-based specialization differentiates us significantly from fast fashion companies. Our approach is not based on high-volume, short lifecycle production, but rather on producing fewer items with significantly longer product lifespans.

R: Could you share your approximate number of employees?

P6: This is actually a very important indicator of our transformation.

In the past, we operated with a workforce of around 80-90 employees. However, in recent years, we deliberately downsized and currently operate with a team of approximately 30 people. At first glance, this may seem like a negative shift, but for us it represents a strategic decision. We chose to scale quality rather than scale production volume. In larger teams, maintaining consistent quality control becomes increasingly difficult. However, with a smaller, more specialized team, we can ensure a much higher level of control over both production quality and sustainability practices.

R: What does your market structure look like?

P6: Our main market is Turkey. However, through e-commerce, we have achieved a global reach. In particular, we experienced significant growth through AliExpress. At certain points,

we ranked among the top three globally in the men's leather footwear category. This was a critical turning point for us, as it demonstrated that we could compete on a global scale with the right product and positioning. However, this success also brought operational challenges. As demand increased, managing production capacity, quality consistency, and delivery timelines simultaneously became more complex. As a result, we had to completely restructure our production planning and operational systems to adapt to this growth.

R: Does your company operate under any sustainability certifications or programs?

P6: Yes, particularly on the technical production side, this is very important for us.

For example, we are actively involved in government related production, specifically in military manufacturing. We produce items such as steel-toe boots, which must comply with strict technical standards and testing procedures. In such cases, production is not only about aesthetics but also about durability, safety, and performance under extreme conditions. Due to the nature of military requirements, I cannot go into full detail, but you can imagine the level of rigor involved in these processes. These requirements impose a highly structured and disciplined production system. Indirectly, this also elevates our overall production standards and operational discipline across all product categories.

R: When did sustainability become a strategic focus for Saillakers?

P6: In a sense, sustainability has always been embedded in our business model because leather is inherently a long-lasting material. However, over time, we realized something important: consumers do not replace products because they are worn out, but rather because they are no longer fashionable. This shifted our perspective. Sustainability was no longer just about durability. It became about redefining value over time. We began to focus on the following question:

"How can we design products that become more valuable as they age?"

R: This is where the A+ project comes in, correct?

P6: Exactly. The A+ project was a major turning point for us. The goal of this project was not to prevent aging, but to redefine it. Instead of products deteriorating over time, we wanted them to evolve aesthetically. We developed a system where a special material is placed between two layers of leather. As the product is used, this material reacts and creates unique surface deformations, resulting in a distinctive visual identity. This means that each product becomes more personalized and aesthetically valuable over time. This is critical from a sustainability perspective because it changes user behavior. Instead of discarding the product, the user develops an emotional connection with it. Sustainability, therefore, is not only about production processes but also about extending the usage phase of the product.

R: How did this transformation affect your production processes?

P6: It had a significant impact. We had to establish new teams, reorganize the production line, and invest in new machinery. For instance, we introduced a spray-dye workshop and integrated it into the production line. This allowed us to add handcrafted finishing touches to each product, enhancing both uniqueness and quality.

R: I assume this also affected your costs. Could you elaborate on that?

P6: In the short term, it was definitely a costly process. Developing a new product system requires multiple iterations reproducing the same product several times, redesigning molds, and testing different materials. However, in the long term, this investment creates significant value. Product quality increases, brand value strengthens, and customer loyalty improves.

R: How do you see the future of sustainability transformation in Turkey?

P6: As you know Turkey is a very strong production country. However, in terms of sustainability, there is still room for improvement. If we can combine our production strength with sustainable practices, we can achieve a much stronger position in the global market. I also believe that government incentives are essential in this process. Companies need both financial and strategic motivation to invest in sustainability. Because we are one of the few

countries capable of managing the entire fashion production process from design to manufacturing to sales it is entirely possible for us to implement higher standards domestically.

R: Thank you very much. The insights you shared are extremely valuable for my research.

P6: Thank you. I hope the information I provided contributes meaningfully to your thesis. I wish you success.