

National College of Ireland

Project Submission Sheet

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# Submission of Thesis and Dissertation

## National College of Ireland Research Students Declaration Form (Thesis/Author Declaration Form)

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**Degree for which thesis is submitted:** MSc International Business

**Title of Thesis:** Impact of Considering Sustainable Strategies on the improvement of Logistics for customer satisfaction in the fashion sector. A Study on Native Denims, Ireland'

**Date:** 15 August 2025'

### Material submitted for award

A. I declare that this work submitted has been composed by myself. ☐

B. I declare that all verbatim extracts contained in the thesis have been distinguished by quotation marks and the sources of information specifically acknowledged. ☐

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**IMPACT OF CONSIDERING SUSTAINABLE STRATEGIES  
ON THE IMPROVEMENT OF LOGISTICS FOR CUSTOMER  
SATISFACTION IN THE FASHION SECTOR. A STUDY ON  
NATIVE DENIMS, IRELAND'**

## **Acknowledgment**

I am incredibly thankful to all those who helped me with the possibilities to complete this report. Special thanks are due to my professor Robert Macdonald. Who supported me by suggesting the required source and encouraging me to complete this project. I sincerely show my gratitude for the time for proofreading and correcting the mistakes. I would also like to acknowledge with appreciation the crucial role of the students in the University, who helped me gather articles to complete the project.

## **Abstract**

The introduction chapter gives the study used to assess the impact of sustainable logistics practices on customer satisfaction for Irish fashion enterprises, utilizing the case of Native Denims. The chapter provides the background, develops the research problem, and states the purpose, objectives, and research questions. The chapter further gives justification, importance, limitations, and overall research design. The chapter places more focus on the significance of sustainability in logistics and its potential influence on consumer buying behaviour and brand loyalty.

Chapter 2 critically examines the intersection of sustainability and logistics in the fashion industry, drawing on the example of Ireland-based Native Denims, a sustainable denim brand. It discusses the overview of Sustainable Textiles making a difference, the pollution that regular textiles create, where to source it, customer appeal, and complications of using it. The theoretical framework that the chapter develops is based on 'Stakeholder Theory', 'Theory of Planned Behaviour', and 'Triple Bottom Line'. The review identifies serious gaps in empirical studies, especially concerning customer satisfaction outcomes of sustainable logistics.

The findings chapter has focused on the relationship between sustainable logistics practices and consumer behaviour perceptions within the fashion industry of Ireland, specifying the attributes of Native Denims. The overall demographics of the respondents have been illustrated by the descriptive statistics, which indicate that the respondent base has been mainly the younger demographics that have shown a positive response regarding the investment in sustainable practices. The correlation analysis has shown positive associations between satisfaction and loyalty, highlighting the recycling acceptance and the concerns regarding the prices. Moreover, the regression analysis has supported the idea of the perceived importance of sustainability, recycling measures, and additionally, the satisfaction among consumers due to sustainable approaches has a substantial impact on loyalty, support, and belief in cost reduction.

The survey outcomes in the fifth chapter confirmed opposite findings in literature confirming robust relationships among sustainability logistics and patron pride in Native Denims via the exploration of motivators, barriers (together with fee and attitude-behaviour gap), and guidelines of transparency, incremental actions, collaboration, and supplying incentives to clients so that you can beef up sustainability integration into style logistics.

Chapter 6 indicated the number one aim, findings, and contributions of the take a look at, confirming a high-quality relationship between sustainable logistics and customer pride and



loyalty in Native Denims. It relates to taking a look at the consequences to the study's objectives, addressing barriers (which include fee and rate sensitivity), and mentioning the restrictions of the methodology. It additionally proposed destiny studies, which include comparative and blended methods, and suggests strategies (transparency, incremental action, collaboration, and client incentives) to bolster sustainability in logistics practices. As a whole, it has proven how SMEs can capitalise on sustainability as a strategic gain in an aggressive market, clients are actually stressful aware of practices, as clients end up more eco-aware.

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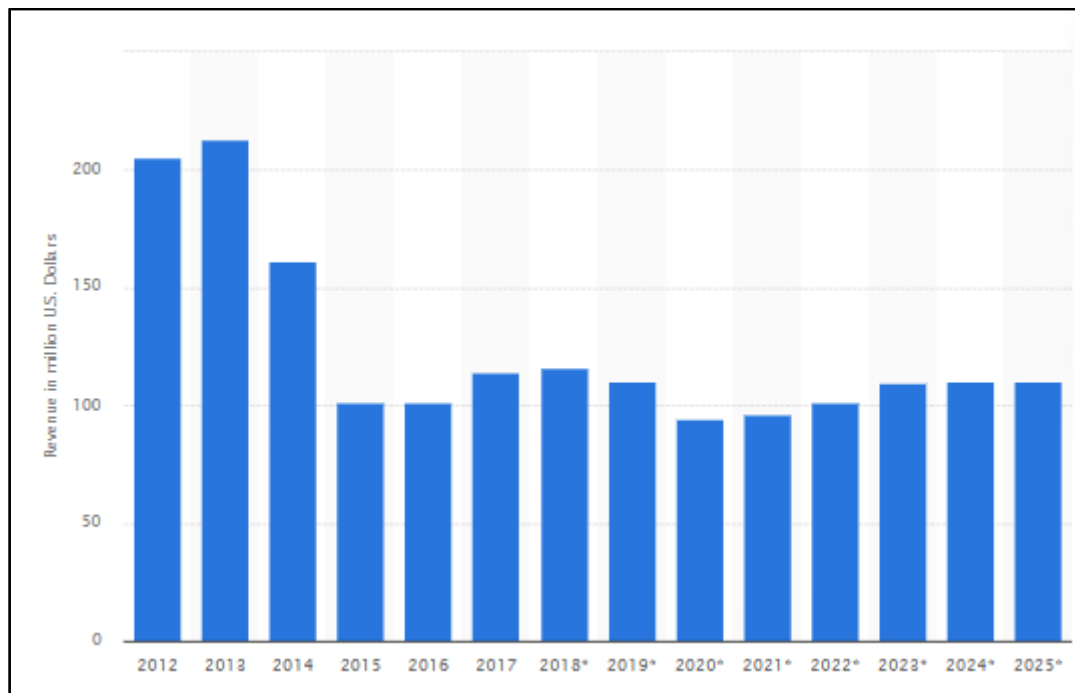
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# Chapter 1: Introduction

## 1.1 Research Background

Fashion is generally known to be one of the world's thirstiest and ecologically harmful sectors. From water consumption and polluting chemicals during manufacturing to carbon footprint through transport and supply chains, the environment is hit hard and far by fashion. In the past couple of years, the sustainability voice has made swift ripples throughout the entire fashion supply chain, and logistics has also proven to be one of the most critical areas where sustainability in practices can be measured and observed to make a difference (Suraci, 2021). Logistics is an extremely broad spectrum of practices ranging from purchasing to transportation, warehousing, stock control, and delivery, each of which has environmental, economic, and social effects. Sustainable logistics is concerned with reducing environmental impacts while at the same time offering economic value and customer satisfaction.

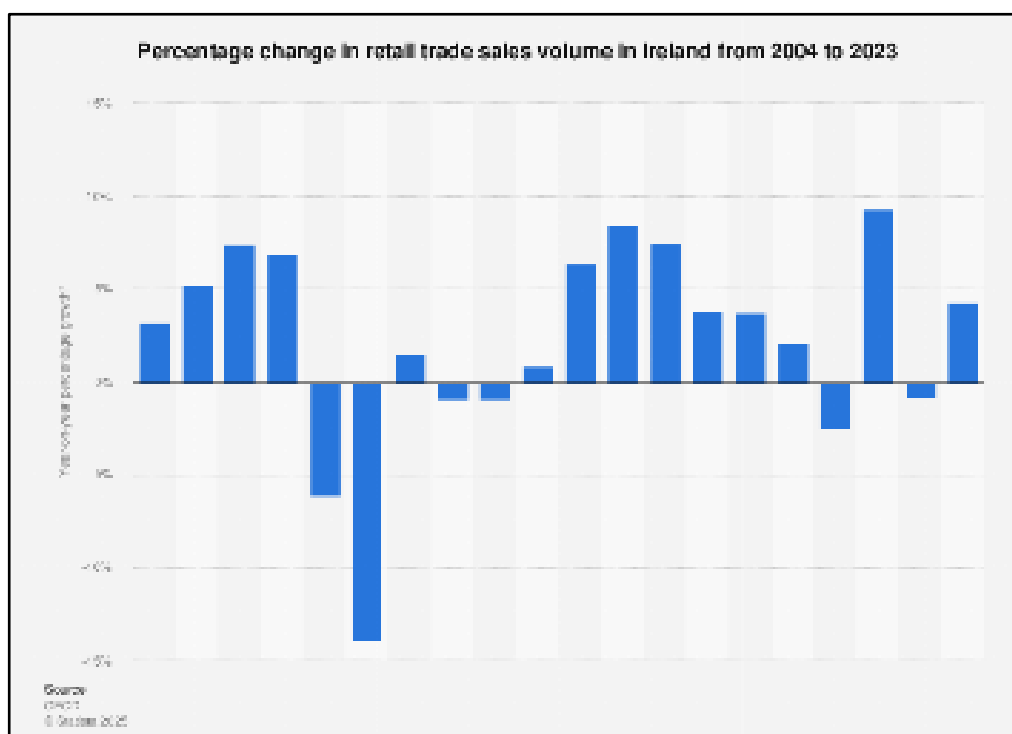


**Figure 1: Revenue of the fashion clothing sector of Ireland**

(Source: Statista, 2024)

The shift to sustainability is increasingly altering customer behaviour. Consumers today are more environmentally aware and aspire to support companies that are open and responsible in what they produce (Majeed *et al.*, 2022). For example, customers in the fashion sector are interested in fashion or product price, where products are produced, how products are manufactured, and how goods arrive. Logistics: thus, it is among the strongest forces influencing brand image as well as customer satisfaction.

In the case of Ireland, the fashion sector is undergoing monumental change. The Irish fashion sector generated revenues of approximately €110 million in 2024 (Statista, 2024), despite having come under scrutiny on the grounds of pollution of the environment. The Irish fashion sector is measured as emitting nearly 12 tonnes of carbon dioxide each year. Most of it is a result of unsustainable logistics behaviour, such as fuel-based shipping, inefficient stock handling, and consumer waste (Pilapitiya and Ratnayake, 2024). Apart from the environmental problems, the sector also suffers from logistical inefficiency caused by inadequate technological infrastructure. It also suffers from costly talent shortages that affect delivery time, customer care, and eventually customer satisfaction.



**Figure 2: Percentage Change in Retail Trade Sales**

(Source: Statista, 2025)

Among these challenges, there have been several Irish fashion firms that have emerged as sustainable pioneers. Dublin-based Native Denims is a firm that specializes in putting sustainability and craftsmanship at the forefront. Native Denim weaves elements of sustainability into its supply chain through the assistance of demand-led stock management, local procurement, and environmentally friendly means of delivery (Junayed and Akter, 2023). Though efforts of this type of sustainability initiative do exist, there are not many academic studies on the actual effect of these sustainability logistics projects on customer satisfaction.

Although sustainability is held to be a value-creator, in fact, its actual contribution to consumer attitude and loyalty, especially for small fashion companies like Native Denims, is virgin territory.

Sustainable logistics is beyond going green because it entails creating an economic, socially fair, and operationally efficient logistics system. This entails electric cars, recovery through reverse logistics, best routing, and ethical working conditions in the value chain. These environmentally inclined steps create customer delight through faster delivery, transparency, and ethical guarantee (Junayed and Akter, 2023). However, many small and medium enterprises in Ireland cannot carry them out due to insufficient funds, technological problems, and insufficient skills within the workforce.

While international players in the fashion industry can enjoy cutting-edge sustainability practices, Irish SMEs like Native Denims live on reduced capital and scale (Duggan, 2021). It is thus important to identify which firms can enjoy sustainable logistics at affordable prices. Faced with an escalation of regulation and consumer calls to be more sustainable, exploring customer satisfaction and its relationship to sustainability in logistics is opportune and necessary.

## **1.2 Aim and Objectives**

### ***Aim of the Research***

The research aims to understand the role of sustainability in logistics for improving customer satisfaction in accordance with the Irish fashion sector by relating to Native Denims.

### ***Research Objectives***

- To understand the effectiveness of sustainability in logistics for improving customer satisfaction in the fashion business.
- To evaluate factors motivating the fashion sector to opt for sustainable operations for improving levels of customer satisfaction in relation to Native Denims.
- To identify issues encountered by the Irish fashion businesses in integrating suitability within the logistics operations.



- To recommend strategies for resolving the issues and integrating sustainability within the logistics operations to bring consumer satisfaction in Native Denims.

### **1.3 Research Questions**

- How do sustainable logistics strategies influence customer satisfaction in the fashion industry?
- What specific sustainable logistics practices most strongly affect customer loyalty and brand perception?
- Which transparency and communication methods are most effective in informing customers about sustainable supply chain practices?
- How do SMEs in the Irish fashion sector overcome challenges when implementing sustainable logistics initiatives?

### **1.4 Research Problem**

Irish fashion retail is plagued by environmental pressures, operational inefficiencies, and evolving customer expectations. Despite economic growth in the sector, it continues to be one of the most prominent causes of environmental destruction in the form of unsustainable logistics patterns (Duggan, 2021). Conventional fossil fuel-burning-dependent logistics patterns, unnecessary packing waste, and inefficient inventory handling are pushing emissions and costs to record levels. Logistics companies in the fashion sector play a significant role in an estimated 12 tonnes of industry-wide carbon dioxide production per year (Silva et al., 2025).

At the same time, the customers increasingly demand an eco-friendly, transparent business. Customers also prefer greener deliveries, reusable packaging, and fair purchasing practices. Most Irish SMEs of the fashion type, of which names such as Native Denims are possible, though, have not integrated sustainability in logistics into their operations because of prohibitively high conversion costs, poorly defined technology structure, and unavailability of skills (Damberg *et al.*, 2024). A scholarship also noted that big multinational fashion firms are eager to collaborate with medium-sized, Irish sustainable-firm companies. Little empirical research has explored how customer satisfaction is directly influenced by the function of sustainable logistics within this local market environment. There is thus a knowledge gap as to whether the sustainability of logistics improves customer perception, loyalty, and satisfaction,

which is a matter at the heart of Irish long-run competitive advantage of firms such as Native Denims.

### **1.5 Research Rationale**

The international drive towards sustainability is transforming the way consumers shop, particularly for fashion. Irish climate- and values-conscious consumers are becoming increasingly more sensitive to the principles of climate responsibility and ethical sourcing, and now seek out businesses that share their values on these fronts in an active manner (Murphy, 2021). With customer experience driven by logistics, whether the speed of vehicles, sustainable packaging, or supply chain visibility, fashion companies need to turn green in logistics to remain competitive.

Native Denim, an Irish clothing brand focusing on environmental conservation and slow fashion, is a pertinent example to analyse the effect of greener logistics in a practical context. The company's adoption of environment-friendly logistics strategies gives a pertinent context to analyse the impact of such an action on customer satisfaction (Moran *et al.*, 2021). However, academic literature quantifying the degree of linkage between sustainable logistics and customer satisfaction in Ireland's market still lags.

The current study bridges the critical gap by analysing an academically relevant and beneficial topic. The results will help Irish fashion business owners, logistics experts, and sustainability activists understand how green logistics can build customer loyalty and deliver long-term business value within a fast-paced, competitive, and environmentally aware market.

### **1.6 Research Significance**

The research is theoretical and practically relevant to the new sustainable fashion and logistics era. As sustainable fashion business constitutes one of the core values among today's consumers, especially in environmentally oriented markets such as Ireland's, sustainable fashion companies ought to be aware of how their logistics activities influence customers' satisfaction (D'Itria *et al.*, 2024). Native Denim, among the Irish youth fashion companies extremely well-renowned for environmental awareness, is a suitable and fitting case to examine such linkages.

Scholarship-wise, it is added to the comparatively lesser-studied field of convergence of sustainable logistics and customer satisfaction in Ireland's fashion industry. Earlier research until now was all about incredibly large global brands and, as a consequence, left out small and

medium-sized enterprises (SMEs), which have different operational challenges and opportunities (Gil-Cordero *et al.*, 2023). A case study of one Irish SME fills an important gap and provides evidence on logistics sustainability and its implications for country-level customers.

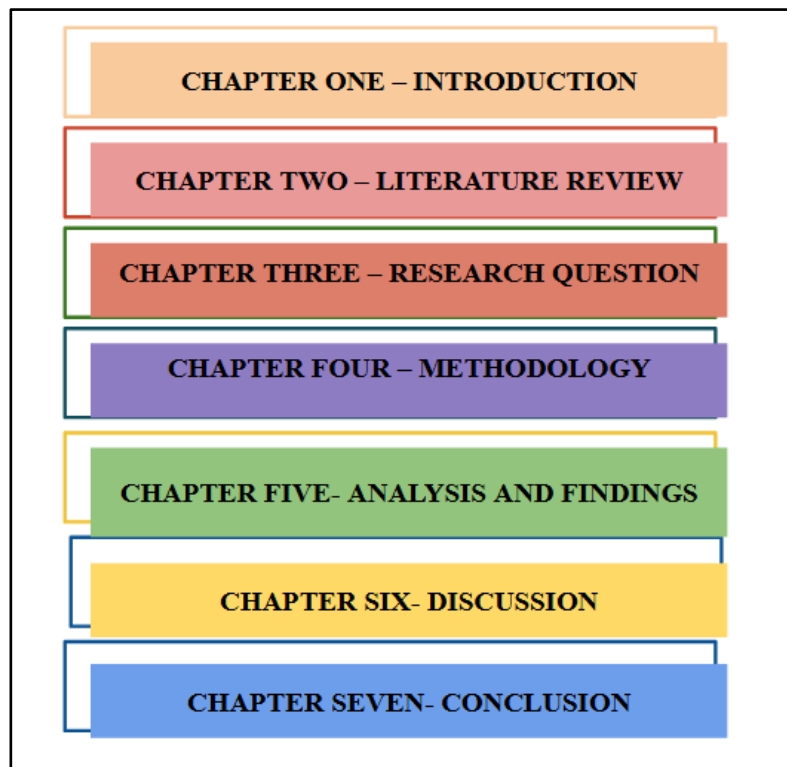
In reality, this research of this research can lead to more effective logistics strategies being implemented by fashion business entrepreneurs, supply chain managers, and sustainable professionals so that they are customer goal-driven. It will teach companies exactly what green packaging, open-sourcing, fair delivery, and sustainable logistics methods deliver in terms of customer satisfaction and even customer loyalty.

### **1.7 Research Limitations**

This study attempts to provide useful information, but it is hampered by several limitations. First, just a single case, Native Denims, is used in this research, and that may limit generalisability to other fashion firms, more so, firms on other scales or in other markets. Although Native Denims is an appropriate case study, it is a niche player within the overall fashion industry, and its sustainability may not extend to the greater or lesser socially responsible businesses (Iwona Zdonek *et al.*, 2025). Secondly, the research is mono-method quantitative and gathers data using structured questionnaires. However, this allows objectivity and simplicity of statistical analysis. It can also rule out a greater understanding of the reasoning, emotions, and customer cultural values that can be focused on using qualitative methods, and techniques as interviews or focus group interviews.

The data is then limited to 100 customers using random sampling. Although it helps validate the information, it excludes certain customer groups, such as less technology-connected or occasional customers. Finally, relying on self-reported responses to questionnaires is susceptible to social desirability bias, where customers would report that they are more likely to use sustainability practices.

## 1.8 Research Structure



**Figure 3: Research Structure**

(Source: Self-Created)

The research is organised into seven chapters. The Introduction is a concise summary and background setting of the research. The Literature Review presents theories and studies on sustainable logistics and customer satisfaction. The Research Question is a stated underlying question to be answered by the research. The Methodology explains the study design, data collection, and analysis process. Analysis and Findings provide findings based on the outcomes of surveys. Discussion elaborates on these findings in the context of the literature and the research question. Finally, the Conclusion provides the key findings, offers recommendations, and outlines future research directions.

## 1.9 Summary

The chapter researches customer satisfaction driven by sustainable logistics strategies in Ireland's clothing sector, namely for Native Denims. The chapter establishes the research problem, objectives, and justification of the research. The chapter also establishes grounds for which this research is needed in light of growing environmental problems, as well as consumer attitude change. The chapter also specifies the hypothesis, limitations, and general research framework. The research, based on case study research, aims to provide empirical and

theoretical contributions toward customer satisfaction as influenced by sustainable logistics and thus contribute to the advantage of sustainability proponents, fashion companies, as well as policy decision-makers.

## **Chapter 2: Literature review**

### **2.1 Introduction**

This part of the research paper will evaluate the existing literature on sustainable strategies for improving logistics for customer satisfaction from the existing studies. This paper will identify key theories and findings based on the broader academic discourse. The theoretical implication will be provided to support the contextualisation of the study. Moreover, the conceptual framework will be provided to identify the independent and dependent factors for the sustainable textile industry. This current chapter will provide knowledge and perspectives across various sources that can support its academic relevance and contribution.

### **2.2 Empirical Studies**

#### ***2.2.1 Sustainable Textile Alternatives and Material Innovation***

According to Butturi *et al.* (2025), sustainability remains at the heart of the fashion industry's core focus on logistics issues. Being driven by increasing consumer awareness, regulatory pressures, and environmental degradation at the hands of fast fashion, this industry has continuously faced challenges in sustainable ethics. Recent literature, therefore, indicates that sustainable methods within logistical operations reduce environmental harm. At the same time, improved customer satisfaction has become a sixth sense for brands in terms of customer loyalty and market advancement. Moreover, replacing traditional plastic packaging with biodegradable and recyclable materials helps reduce waste and pollution. Therefore, the sustainable initiatives maintained in the textile industry have allowed it to attract customers due to their preferences. They are constantly trying to enhance the procedures to reduce the environmental impact.

The findings of PwC (2024) have helped bring to light the growing consumer willingness to pay more (an increase of up to 9.7%) for fashion products marketed as sustainable, even in hard times like inflation. This finding is also highlighted by the fact that sustainability can no longer be seen as some extra taken-for-granted value added to any product or goods; however, it will be seen as an expectation by consumers. On the other hand, logistics practices need to incorporate sustainability within their supply chains, such as carbon-neutral shipping, eco-packaging, and transparent sourcing. It is important not only for environmental reasons but also for retaining customers. This study attempts to foster insight into the consumer's intention; however, it pinpoints clear economic motives for companies like s to integrate sustainability into logistics.

On the contrary, Wattanavichean et al. (2025) stated that developing new sustainable materials, such as mushroom leather and Piñatex, has become one of the significant fundamental shifts in sourcing and inventory logistics for the fashion industry. It has been found that mushroom leather (Mylo) is a biodegradable, resource-conserving alternative to animal-based and synthetic leather. This innovation decreases the environmental footprint of raw material acquisition and promotes easier waste management in production and delivery logistics. Additionally, producing these materials often involves greater traceability and transparency within the supply chain measures. These facilities align with the sustainable choices preferred by customers, and shifting from the traditional measures allows for a more circular and eco-friendly approach, paving the way for innovation.

As per the article by Özlem (2021), Piñatex and mushroom fibre use in the fashion industry has been growing as these are sustainable options. Piñatex is made from cellulose strands from pineapple leaf fibres, while mushroom fibre (mycelium leather) is made from the root structures of fungi. They are biodegradable, cruelty-free, and require fewer resources than conventional animal skin or synthetic counterparts. These alternatives have reduced the demand for leather and synthetic fabrics, paving the way for reducing environmental impact. Moreover, the growing awareness of environmental and ethical issues is the basic criterion of customers in the present times and has impacted industries to make more sustainable, fashionable choices. Thus, through these facilities, the textile industry prioritizes the sustainable options and promotes a more sustainable, circular fashion system. For example, the company HOZEN uses Piñatex, a leather-like textile produced from pineapple leaf fibres that uses comparatively little water and chemicals and fits well with the circular economy models ([hozencollection.com](https://hozencollection.com), 2025). It can also be said that biodegradable packaging and local sourcing reduce shipping distances and return rates, thereby improving shipping timelines and perception by the customer. However, logistics sustainability must scale cost-effectively, creating a dilemma for most small-to-medium enterprises.

Barbhuiya and Das (2023) explained in their article that these sustainable materials reduce the environmental impact and logistical considerations such as storage conditions, transport requirements, and end-of-life treatment. These all combine to build a sustainable supply chain that can strike a chord with environmentally conscious consumers. The logistic system has had a profound and practical impact in reducing pollution despite utilising sustainable methods. The textile alternative can impose sustainable practices and growth for an organisation by bringing systematic changes. The synergy between sustainable materials and logistics becomes stronger when focusing on choosing a textile alternative. Instead of viewing sourcing,

production, and distribution as isolated activities, recent research supports a logistics approach, moving upstream from the choice of sustainable materials right through the logistics efficiency downstream and finally to customer delight.

### ***2.2.2 Critique of Conventional Fashion Materials and Environmental Impact***

As per the study conducted by Aldalbahi *et al.* (2021), the continued dependence upon man-made fabrics like nylon, acrylic, and polyester continues to cause enormous environmental harm in the fashion industry. The convenient use of these materials in mainstream clothing lines is cheap and durable, enabling designers to utilise fast fashion cycles. These materials are not renewable, not sustainable, and rely on the continuous use of fossil fuels to manufacture and generate for consumers. The environmental degradation is magnified through the release of microplastics through the periodic laundering of polyester clothing, which affects our marine ecosystems and wipes away many natural resources.

Conversely, the research applicable to the context by Moran *et al.* (2021) and the Central Statistics Office found that the fashion sector collectively produces 12 tonnes of carbon dioxide each year. This also includes a significant percentage from the production of synthetic textiles and complex supply chains. Irish fashion market displays a fast fashion mentality, similar to large global fashion markets; however, it is more gradual and less detrimental. The mass-market model leads to overproduction with more waste produced and the proliferation of synthetic clothing with few biodegradable or recyclable considerations (Kim, 2022). This ultimately leads to this clothing being sent to landfill collections with very few textile recovery systems to mitigate environmental impact. The problem of synthetic fabrics is also multiplied by the chemicals used in dyeing and treatments. These are under-regulated chemicals that leak into local water systems and put at risk biodiversity and human health at risk. The handy use of those substances in mainstream strains of garb is reasonably priced and durable, allowing designers to utilise rapid style cycles. These substances are not renewable, now no longer sustainable, and depend on the non-stop use of fossil fuels to fabricate and generate for consumers. Environmental obligations are weak for countries where work is contracted out, such as Bangladesh or China. As the work is done abroad, it is just one small part of the globalised supply chain to which Irish businesses, such as Native Denims, are deeply attached. One area of focus is the interpretation of how to assess the perceived affordability of fast fashion products made from synthetic fibres. Lazar *et al.* (2021) state that low end-user costs are a positive for consumers, but the overall environmental cost is externalised and ignored in the cost models. It represents an ethical dilemma that prioritizes consumer comfort even when the environment is destroyed at no cost to the consumer. The challenge for sustainable



enterprises like Native Denims is to disrupt this framing by providing a sustainable, ethically-based alternative to consumers who are still within their financial capability. However, providing those alternatives is only part of it, and material substitution alone is insufficient. Consumer education and intentional marketing are also part of the solution. The environmental degradation is magnified via the discharge of microplastics via the periodic laundering of polyester garments, which influences our marine ecosystems and wipes away many natural resources.

Compared to this, Dziedzic *et al.* (2025) state that brands that continue using synthetic materials face increasing reputational risk. As the previously referenced example of Shein illustrates, unethical practices, such as child labour and unsustainable sourcing, can significantly damage customer confidence. The reputational damage caused by unethical use of materials does not just apply to fast-fashion companies. However, it will even affect small-time players who fail to disclose their material choices (Salume, 2024). For Native Denim to develop trust around its sustainability claims, it will require a shift away from the traditional synthetic model and into sustainable textile alternatives, albeit at a small scale. Synthetic materials usually require long-distance imports from manufacturing centres to consumption centres, which adds to the emission burden. Import support-based logistics models, particularly those without an option to do it via air or ocean freight, will take that toll on the planet. As it can be observed that locally made brands usually avail themselves of small operations and logistics pressures, they too have to look into sourcing routes to discover the truth about their emissions footprint (Melnikas, 2024). Dependence on synthetic textiles is not exclusively a material problem, but an industry problem perpetuating unworkable business models. It is genuine and completely unrealistic to expect most SMEs to eradicate their synthetic fibres because of financial or accessibility constraints. However, sustainable alternatives can gradually be trialled as a reasonable entry point. The common usage of synthetic modelling materials is a hurdle to carrying sustainability across the fashion sector in Ireland. It goes against environmental aims, adds more emissions to transport, and raises ethical dilemmas created by credibility issues.

### ***2.2.3 Sustainable Sourcing and Logistics Practices in the Fashion Sector***

As per the study conducted by Bhandari *et al.* (2022), eco-friendly logistics and sourcing practices are cornerstones of any green fashion enterprise. These include raw materials sourcing, sources' geography, transportation modes in the supply chain, and infrastructure employed for delivery and warehousing. Similarly, the study by Jayarathna *et al.* (2022) states that every one of these decisions has enormous implications for a fashion business's environmental impact and ability to operate, for brands such as Native Denims, which sell

themselves as being green as well, incorporating sustainable sourcing and logistics initiatives is at the core of how they are perceived as well as how they will compete in the future market. In Ireland, excessive dependence on foreign fabric and offshore production is detrimental to domestically based sustainability objectives. Fashion companies sourcing materials from remote nations create unavoidable logistical issues such as higher greenhouse gas emissions, lateness, and added expense (Owusu-Wiredu, 2024). These international supply chains, though potentially cost-effective over the short term, are environmentally and image-aware, susceptible to eroding customer satisfaction. Native Denims is pioneering in adopting a localised sourcing strategy, demand-led stock management, and small-scale production.

On the other side, the observation by Esan (2024) states that local sourcing not only streamlines the logistics framework but also facilitates better material quality and ethical management. Through local and in-regional textile sourcing, Native Denims minimises its dependency on high-carbon transportation modes of shipping by sea and aircraft freight. Similarly, the study by Golinska-Dawson and Sethanan (2023) states that local availability allows the incorporation of cleaner delivery mechanisms, for example, electric and hybrid fleets, which are increasingly researched in Irish city centres. These supply chain decisions directly influence customer satisfaction through enhanced delivery schedules, minimised damage during shipping, and synchronisation of brand behaviours with consumers' values. Reverse logistics is also an important aspect of sustainable logistics systems. Allowing the return, recycling, or reuse of clothing, brands can prevent clothing from entering landfills and contribute to a circular economy (Chen *et al.*, 2021). New to Ireland's fashion industry, reverse logistics provides businesses such as Native Denims with the means to sustain customer relationships through reward-based return mechanisms and repair initiatives. These efforts reflect environmental stewardship and create customer loyalty through involvement beyond the point of sale.

In comparison to this, it has been observed by Angelo (2025) that the existence of skilled manpower has been identified as one of the most hindering challenges. Labour supply shortages have persisted, especially in niche areas such as green logistics, ethical purchasing, and supply chain auditing. People are informed by Grant Thornton Ireland (2023). The skills gap disproportionately impacts small and medium businesses since they lack the finances and institutional abilities to invest in employing or training employees with sustainable operations capabilities. The shortage makes implementing the new application of top-of-the-line logistics practices impossible, and the firm's capacity to expand its sustainable model is constrained. There are environmental gains, but economic pressure dissuades SMEs from mass take-up. Sustainable materials are costly since shorter supply chains and ethical production processes

are utilised. Investments in logistics equipment like route optimisation software, carbon-monitoring systems, or environmentally friendly packaging are not free. Transparency remains the bedrock of sustainable sourcing and logistics (Watkins, 2024). Electric and hybrid fleets are increasingly researched in Irish city centres. These supply chain decisions directly influence customer satisfaction through enhanced delivery schedules, minimised damage during shipping, and synchronisation of brand behaviours with consumers' values. Reverse logistics is also an important aspect of sustainable logistics systems. Allowing the return, recycling, or reuse of clothing, brands can prevent clothing from entering landfills and contribute to a circular economy. Consumers increasingly demand information about where a purchase is sourced from, the materials used, and any carbon footprint related to the purchase. Brands, with more and more available ways to provide that information through labelled packaging, product documentation, and digital storytelling, are far more likely to earn customer trust and loyalty by doing so.

On the other side, the research by Lou and Xu (2024) states that native Denims has secured a segment within this space with a focus on transparency by explicitly discussing its sourcing policies and environmental beliefs. However, the logistics team must invest in third-party certification to credibly support these claims and align with the branded company's principles. Companies are now forced to elevate their sustainable logistics by changing their view of the final delivery process (Silva *et al.*, 2023). Businesses must shift from speed or cost efficiency to prioritising the environmental costs of last-mile delivery. Other rational solutions to enhance service quality and sustainability include fleets of electric delivery vehicles, packaging materials made from biodegradable materials, and route optimisation of deliveries. By providing these solutions first, Native Denims can sync its logistical activity with its sustainability focus to provide more value to consumers, for manufacturers including Native Denims, which promote themselves as being inexperienced as well, incorporating sustainable sourcing and logistics projects is on the middle of ways they are perceived in addition to how they will compete withinside the destiny market. In Ireland, immoderate dependence on overseas cloth and offshore manufacturing is detrimental to regionally based sustainability objectives.

#### ***2.2.4 Consumer Perception and Behaviour towards Sustainable Fashion***

According to Dangelico *et al.* (2022), the fashion industry is among the most environmentally harmful sectors due to its high-water consumption and the use of three pollutants. Consumers and brands are turning attention to sustainable fashion, especially clothing made from eco-friendly materials and processes. Purchase intentions are regulated by the perceived value of

customers, which positively influences willingness to pay more, regardless of the tea type or the eco-material used. The study demonstrates that consumer familiarity influences behaviour differently depending on recycled or plant-based fibre, whereas social demographic variables also affect green consumer attitudes. Abrar *et al.* (2021) have shown that consumer perception is a growing environmental consciousness that influences shopping behaviour, particularly among younger demographics.

Numerous studies supported evidence that consumers are more inclined to support brands they perceive as environmentally responsible. On the other hand, Mandarić *et al.* (2021) suggested a disconnection between the stated concerns of consumers about sustainability and their actual purchasing patterns, which reveals a significant attitude-behaviour gap. Consumers showcasing concerns for environmental issues and ethical labour practices are still driven by choices based on price and convenience. This condition highlights continuing fast fashion purchases from brands like H&M and Zara, signalling that sustainable collections have limited influence on overall consumer behaviour. Additionally, Sheoran and Kumar (2022) also highlight that a lack of knowledge and limited access to sustainable options associated with higher costs and societal norms hinder sustainable purchasing. Customers often follow misconceptions about sustainable fashion being attractive and outdated; while greenwashing practices further erode their trust in sustainability claims. As per the view of Oppong-Tawiah Moreover, Webster (2023) brands often exaggerate or falsify advertising regarding their environmental efforts, which deepens this scepticism. Greenwashing misled consumers into believing they are making eco-friendly choices when the products may not meet genuine sustainability standards.

As per the view of Gálvez-Sánchez *et al.* (2024), corporate social responsibility is characterised as distinct in several factors impacting significantly on the variables of interest. The study highlights that CSR impacts different aspects, such as willingness to pay or brand equity. Consumers showed strong preferences for brands that visibly commit to environmental stewardship, aligning with the increased global awareness of climate change initiatives. The critical insights on the role of CSR towards brand credibility suggest that the impact of CSR activities on brand equity and willingness to pay incorporates credibility as a filter through which consumers evaluate whether the efforts are genuine or performative.

On the other hand, Salem and Alanadoly (2024) said that while CSR has become a prominent tool for fashion retailers aiming to enhance consumer engagement, the pathway through which it influences consumer behaviour is complex and has been only partially discovered. Research highlights that consumers today expect brands to demonstrate a genuine commitment to social

responsibility and sustainability beyond superficial marketing claims. The dimensions of CSR that involve economic, philanthropic, ethical legal aspects collectively shape consumer perceptions and regulate how they trust brands. Perry *et al.* (2025) demonstrated that engagement often seems superficial or manipulation, mainly due to the ethical misconduct of brands. This can lead to disillusionment, which demands actual value creation depending on transparent communication and shares purposes.

Cuesta-Valiño *et al.* (2024) suggested that consumer brand engagement incorporates cognitive, behavioural, and social components, and engagement does not always determine a positive attitude. The involvement of emotional connection related to perceptions of active participation and co-creation of brand value requires interactive experiences that can nurture loyalty and intentions to purchase.

Furthermore, Vladimirova *et al.* (2024) stated that external influences, including media, peer groups, advertisements, and influencer references, shape perception. Social media in that realm has become a significant force in shaping sustainability narratives related to fashion, particularly among Gen Z and millennials. The visuals showcasing a sustainable lifestyle while deliberately demonstrating the harmful effects of fashion procurements on the environment can emotionally resonate with customers, fuelling their interest to act responsibly. Context-specific insights about a positive correlation between customer attitude and sustainable lifestyle promotion are still limited. The critical exploration of the green logistics practice's influence on consumer perception and behaviour towards fashion brands can offer valuable knowledge to promote market differentiation.

### **2.2.5 Challenges faced by fashion sectors in implementing sustainability in their logistics operations**

The logistics network of the fashion industry is significantly hard to decarbonise and clean up, given its scale, speed, and complexity. In a global context, fashion accounts for approximately 10% of all carbon dioxide emissions, more than international flights and shipping combined (Maiti, 2025). This is due to its long and multi-tiered supply chains and production processes, which can be energy-intensive. According to the statement of Boyle (2024), the sheer complexity and opacity of fashion logistics span raw material cultivation, fibre processing, assembling, transportation, warehousing, and other primary processes. Most brands lack complete visibility beyond their tier-1 suppliers, making tracing the carbon hotspots of labour abuses more complex and incorporating corrective measures. This is prominently evident in the landscape of fast fashion, and the popular fast fashion brand Shein can be considered a prime example of this. Yale Climate Connections (2024) reported that Shein has a notably

negative reputation as the biggest polluter in the fast fashion industry. The firm overtook its competitors in 2023 by being the largest carbon emitter due to releasing over 16 million metric tonnes of carbon dioxide. The amount has been further determined to be greater than four coal-fired power plants produced yearly.

The most intractable environmental hurdle is transportation in the fashion sector, where sea and road freight are lower-carbon by tonne-kilometre (Vishwakarma *et al.*, 2024). However, the industry focuses on the inventory system of just-in-time delivery, where the fast-fashion sector has led to a considerable surge in air shipments. Reid (2025) reflected that Zara, Massimo Dutti, and notable brands have been observed to face a rise of 10% in their transport emissions in 2024 to an amount of over 2.6 million tonnes of carbon dioxide equivalent. Additionally, it was highlighted that these companies had resorted to air freight from countries in Asia to Spain in order to keep stores stocked amidst maritime disruptions. Niemeijer and Buijs (2023) stated that faster delivery to consumers leads to individual parcel shipping and express options, and is fulfilled by air transport, further contributing to emissions.

The issue of overproduction and inventory waste in the fashion sector results in more enhanced issues associated with sustainability and the environment (Sharma and Sharma, 2024). In order to restock the inventory with the latest trends while aligning with the changing consumer demand, companies in the fashion industry consistently produce more clothes than consumers wear in actuality. The output from the fast-fashion industry has doubled since its introduction, but with the utilisation of clothing falling. Furthermore, the result is impactful, where huge inventories and post-use waste, estimated that approximately 60% of the garments these organisations have produced have been discarded just a few years later. There are environmental gains; however, monetary stress dissuades SMEs from mass take-up. Sustainable substances tend to be high-priced because shorter deliver chains and moral manufacturing methods are utilised. Investments in logistics devices like course optimisation software, carbon-tracking systems, or environmentally friendly packaging are not free. Transparency remains the bedrock of sustainable sourcing and logistics. Over 5.8 million tonnes of new garments have been trashed annually, further contributing to the sector's waste (Circular Online, 2024). A substantial source of waste in the fashion sector is packaging because most of the goods use single-use polybags, cardboard, plastic-coated tags, and other materials. The complexity of global supply chains and a significant lack of standardised, recyclable packaging materials pose a considerable threat to the efforts to reduce waste (Asim *et al.*, 2022). Various brands in the sector, such as Lulu Lemon and H&M, still use fossil-fuel-based plastics for mailers and hangers due to cheaper eco-alternatives not being scaled yet.

Luxury brands such as Gucci and Louis Vuitton use premium and reusable packaging but highly rely on complex international shipments of bulky leather goods, which demand strong and effective cushioning.

Online apparel returns are assessed to generate massive carbon dioxide emissions and landfill waste (George, 2024). Once these garments are returned, they cannot be resold due to minor damage, seasonal changes, or the high cost of reprocessing. The low price points of the fast-fashion sector make it cheaper for brands to discard these items instead of conducting inspections, cleaning, repackaging, and restocking them. On the other hand, the implementation of eco-friendly logistics and other sustainable processes requires a significant amount of capital. Additionally, brands with sustainability budgets must balance green logistics investments against consumer expectations for rock-bottom prices and rapid trend turnover.

### **2.2.6 Impact of Sustainable Logistics on Customer Satisfaction**

According to Nagy and Szentesi (2024), sustainable logistics involves integrating environmentally responsible practices into logistics along with supply chain processes to minimize ecological impact and enhance sustainability. Furthermore, it aims for the reduction of carbon emissions along with the optimisation of resource use throughout the entire supply chain. Incorporating sustainable logistics into supply chain operations has emerged as a critical determinant required in the overall satisfaction of customers due to the simultaneous addressing of environmental concerns and enhancing the overall value proposition as perceived by the end users. Sustainable logistics enables the overall enhancement as well as the optimisation of transportation routes for the minimisation of transportation routes to minimise greenhouse gas emissions (Ojadi *et al.*, 2024). By leveraging advanced route-planning software and alternative fuel vehicles, companies in the fashion sector can reduce delivery times and significantly contribute and commit to the environment. Modern customers have a considerable demand for transparency regarding a company's carbon footprint. Additionally, firms that demonstrate genuine and considerable efforts towards strategies of decarbonisation gain an improved brand image and reputation.

Incorporating eco-packaging innovations enhances the customers' overall experience while reducing waste disposal burdens for customers (Alessandra, 2023). Furthermore, the improvement in the presentation of products and post-delivery convenience accentuates the satisfaction level of customers. They also appreciate packaging solutions that have a prominent alignment with their sustainability values, along with reducing their environmental impact. Packaging that can be returned or repurposed through a take-back programme helps adopt a sense of partnership and shared responsibility between the brand and its customers. The

assurance these brands offer for easy returns and transparent tracking of the returned item amplifies satisfaction by transforming post-purchase concerns into opportunities for engagement and education. Firms that integrate carbon-offset programmes or partner with carbon-credit providers can provide customers with the option of neutralising the footprint of their shipments and adopting a deeper emotional connection (Martielli, 2024).

The diversification of energy sources and localising distribution hubs enables organisations to reduce their vulnerability to fuel price volatility, geopolitical disruptions, and extreme weather events exacerbated by climate change. This resilience manifests in fewer stockouts, more consistent delivery windows, and adaptive capacity during peak seasons, all of which contribute to a seamless customer experience. In turn, satisfied customers become brand advocates, sharing positive word-of-mouth and recommending services to peers who likewise prioritise environmental and service excellence. Sustainable supply chain management comprises benefits that are extensive and multifaceted. The integration of eco-friendly practices into their operations can lead to several benefits.

Additionally, technology-enabled logistics management consisting of blockchain monitoring and automatic emissions reporting can beautify the credibility of sustainability claims and ensure compliance with the rising EU sustainability disclosure rules. As patron expectancies shift, businesses that fail to combine virtual traceability and obvious logistics information risk dropping competitiveness. By embedding those tools, Native Denims can boost its dedication to sustainability even by optimising costs, using operational efficiency, and constructing a resilient deliver chain that balances income with environmental responsibility. Implementing sustainable logistics and practices, including optimizing transportation routes and reducing packaging waste, improves energy efficiency and significant cost savings (Olaleye *et al.*, 2024). Fuel costs are lowered through optimised routing and reduced packaging expenses with the help of material efficiency and minimisation of waste-handling fees. The continuous evolution of customer expectations towards ethical responsibility and high-quality service results in organisations holistically embedding sustainability. This further ensures meeting their logistics frameworks and exceeding satisfaction standards while securing a competitive advantage in a responsibly conscious marketplace.

## **2.3 Theoretical Framework**

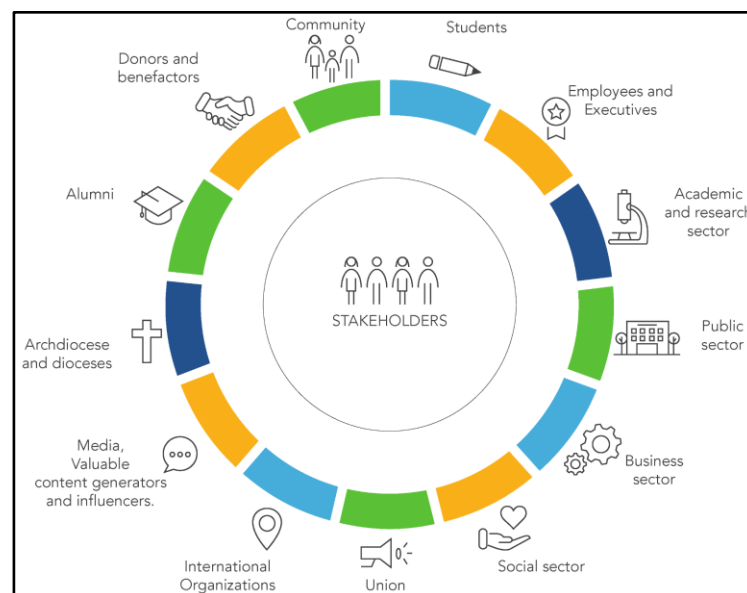
A robust theoretical framework underpins a conceptual framework to investigate the relationship between sustainable strategies, logistics practices, and customer satisfaction in the fashion sector. For Irish research on Native Denims, the framework is founded on three



influential theories: Freeman's (1984) Stakeholder Theory, Ajzen's (1991) Theory of Planned Behaviour, and the Triple Bottom Line Model (Elkington, 1997). These combined theories point to drivers embracing sustainable logistics, consumer behaviours' impact, and the general environmental, social, and economic effects.

## Stakeholder Theory

Stakeholder Theory assumes that companies are in a web of relationships with all stakeholders, such as suppliers, investors, employees, customers, and society. Organisations, as the theory goes, have to take care of and balance all the interests of all the stakeholders concerned and not merely enrich the shareholders (Freeman, 1984). In sustainable logistics, the theory emphasises that companies such as Native Denims must balance operations with the sustainability expectations of internal and external stakeholders. This is especially applicable within Ireland's fashion industry, where green consumers are demanding ethical and transparent business practices from businesses. Being a green SME, Native Denims should answer stakeholders with environmental issues, ethically sourced supply chains, and community relations.



**Figure 4: Stakeholder Theory**

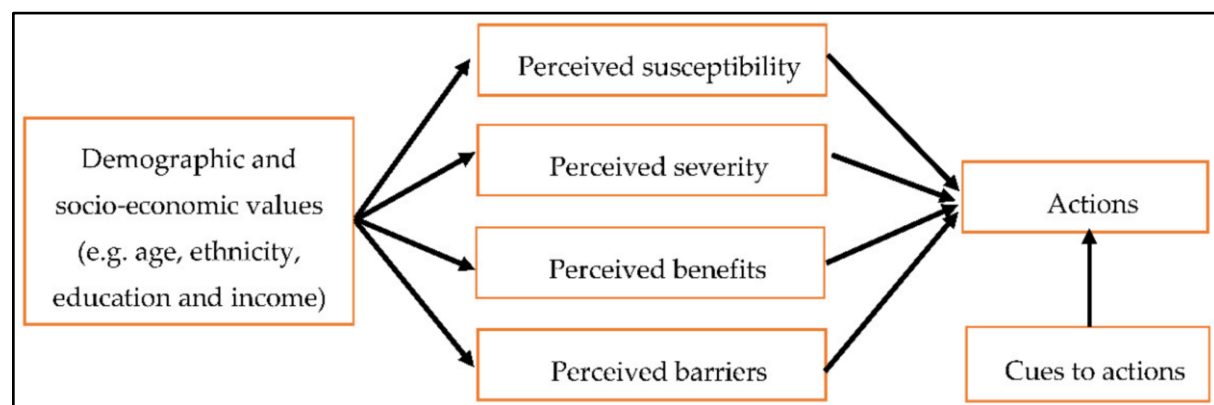
(Source: Osorio *et al.*, 2024)

Based on the execution of green logistics strategies, specifically, low-emission delivery systems and local materials, the business can create stakeholder trust, stimulate loyalty, and achieve long-term consumer support (Weng, 2025). Stakeholder Theory, therefore, presents the argument that customer satisfaction is a downstream effect of effective logistics

performance and a product of a firm's adherence to overall stakeholder values, in this case, sustainability ones. Reporting environmentally sustainable practices, therefore, Native Denims appeals to a key issue for stakeholders and puts itself in a better position in the minds of moral consumers.

### Theory of Planned Behaviour

The theory of Planned Behaviour is a psychological theory of human behaviour that describes and predicts behaviour, especially where decision-making is involved. The theory intends to account for the joint influence of attitude, subjective norms, and perceived control over the behaviour that influences the individual's intention to behave. The theory of Planned Behaviour has also been used to clarify how and why consumers choose brands based on values. Consumer attitudes towards sustainability are also important in how TPB is applied to our study (Sok *et al.*, 2020). Consumer attitudes towards sustainability shape their perception of brands such as Native Denims.



**Figure 5: Theory of Planned Behaviour**

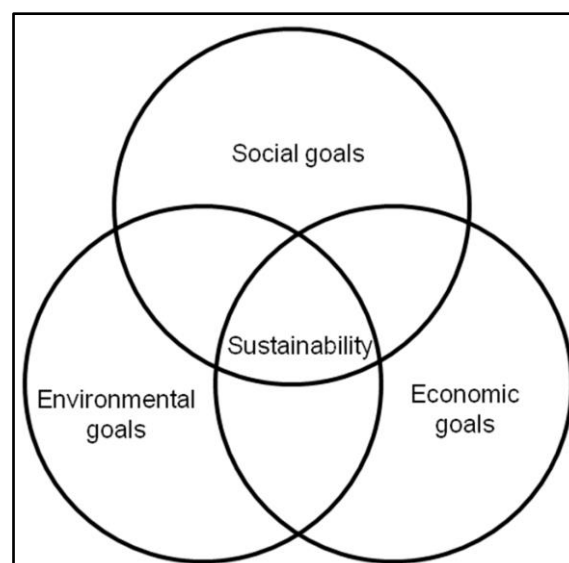
(Source: Alhamad and Donyai, 2021)

That is, when consumers see sustainable logistics measures overlap with their environmental beliefs, there is a greater likelihood that they will develop a positive attitude towards the brand. In addition, subjective norms are influenced by fellow consumers and opinions expressed in the media, and this social footprint also makes choosing sustainable fashion brands desirable. The perceived behaviour control part of the equation considers whether or not consumers believe that the social or economic conditions limit their ability to make ecologically friendly purchases. This conceptual framework assists in analysing survey results

associated with the principal study. For example, when consumers are willing to pay more for sustainable logistics options, they demonstrate a firm behavioural intention based on their attitudes and social support. Understanding these variables allows Native Denims to boost its logistics strategy and shape marketing and communication regarding driving behaviours.

### Triple Bottom Line

The Triple Bottom Line (TBL) approach expands the meaning of business success to include three interlocking pillars: people, planet, and profit. For sustainable fashion logistics, TBL may be used as a broad framework for assessing how far firms are offsetting profit against social and environmental obligations (Nogueira *et al.*, 2023). The business of Native Denims is understood. On a natural ecosystem level, the company's efforts to minimise carbon footprints through local sourcing and environmentally friendly packaging go to the "planet" component.



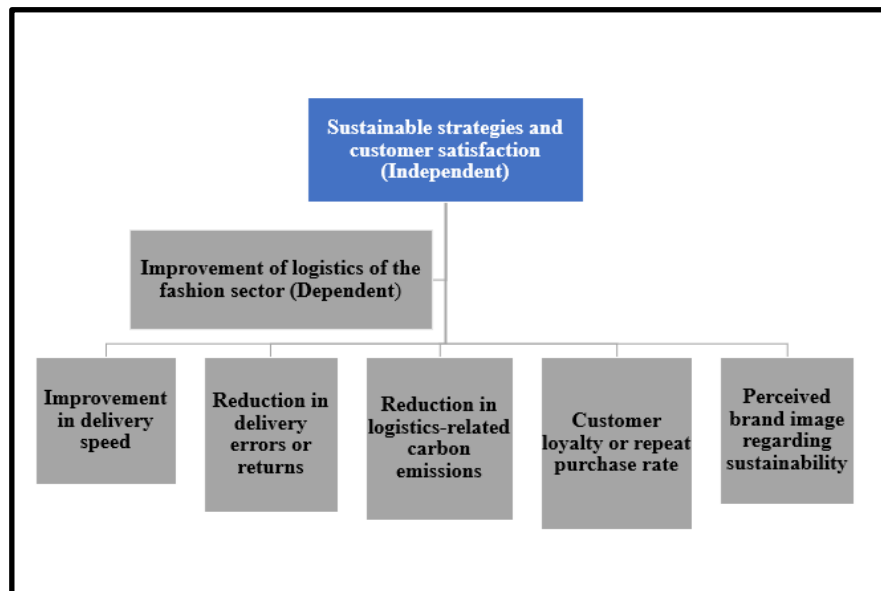
**Figure 6: Triple Bottom Line**

(Source: Treiblmaier, 2025)

Socially, its movement on ethical sourcing and transparency tells us quite a lot about how it cares for "people", employees, consumers, and society. Aligned with the "Profit" axis, the firm could not only subscribe to the "Cost" axis but also the "Profit" axis - if the business appreciates, can adapt smoothly to the new business ecosystem creating 200000 jobs, or if the firm can set up more customer loyalty, extending the relationship with customers, or if the firm is willing to establish customer credibility and sustainability of the business by being a brand with values. The TBL model would allow a closer look at synergies and trade-offs. For example, the cost

of operating electric vehicle logistics would likely have a cost premium, but long-term, the reduced emissions and customer goodwill could mitigate this. The model supports the idea that logistics sustainability initiatives result in higher customer satisfaction if grounded in the triple logic of moral duty, environmentally responsible behaviour, and economic robustness.

## 2.4 Conceptual Framework



**Figure 7: Conceptual framework**

(Source: self-created)

This conceptual framework has identified this research paper's independent and dependent variables. The sustainable strategies and customer satisfaction are the independent variables for this study, while the improvement of logistics for the fashion sector is the dependent variable. Delivery speed, reduction in error in delivery, logistic-related carbon emission, loyalty program, and brand image can be affected due to changes in sustainable practices. Therefore, these dependable variables can impact consumers' satisfaction level.

## 2.5 Literature Gap

The research has provided ample information on sustainable strategies for improving logistics for customer satisfaction in the fashion sector. The article has provided compelling insights regarding the sustainable approaches facilitated by different organisations and their impact on their performance. The existing articles have not evaluated the main component of sustainable practices in the fashion sector, creating a loophole. This paper has identified the sustainable growth strategy for organisations in delivering effective sustainable practices. On the other hand, the barriers firms face in implementing sustainable strategies for effectiveness in logistics

operations have not been highlighted clearly. The articles have not highlighted specifications regarding organisations, the use of alternative approaches, and their effectiveness.

## **2.6 Summary**

The chapter has focused on the measures of sustainable approaches for facilitating improvements in logistics to ensure consumer satisfaction. It has highlighted sustainable textile alternatives, material innovation, conventional fashion materials, and environmental impact. Moreover, it has presented detailed information on the operations of sustainable sourcing and logistics facilitated in the fashion sector. This includes prioritising the eco-friendly options in the sourcing and procurement process to reduce waste and environmental impact. The theories, such as Triple Bottom Line, Stakeholder, and the Theory of Planned Behaviour, have allowed for the understanding significance of sustainable functionalities to facilitate suitable improvements within the fashion sector.

## **Chapter 3: Methodology**

### **3.1 Introduction**

The methodology chapter will describe how the research was completed to determine how sustainability strategies affect logistics and customer satisfaction for Native Denims, located in Ireland. This research examines how making logistics more sustainable improves customer satisfaction, as the sector pays greater attention to environmental and ethical issues. With a proper methodology, research functionalities can ensure their approach is easy to follow, can be copied by others, and suits the study's goals. This chapter will defend the philosophy, approach, design, and data collection methods selected for this study. The study will use a positivist philosophy, a deductive approach, and a mono-method quantitative design to examine whether sustainable logistics approaches increase customer satisfaction. All main choices regarding how to study are explained using the Research Onion model, which outlines how data analysis depends on the first step being the research philosophy. Due to this methodology, the study is resilient, impartial, and helpful for studying and applying in the fashion industry. Using this approach, the research can easily spot how efforts related to sustainability shape the company's internal performance and customer relationships.

### **3.2 Research onion**

The research onion model offers a detailed method for developing an organised research method. The top layer relies on positivism, which sees that reality can be measured and placed under objective analysis (Alturki, 2021). Since positivism relies on data, it can be used to check whether sustainable logistics leads to better customer results. As a result, the research can contribute findings that other Native Denims and similar fashion companies can test and apply. Furthermore, the focus is on using a deductive research method. The research can develop suggestions based on pre-determined ideas and assess them by looking at available data (Source: Saunders *et al.*, 2007).

With this method, the process can investigate sustainability and logistics using examples from one setting, which allows the procedures to see whether established theories agree or disagree with assumptions beforehand. After that, the chosen research design is called a mono-method quantitative design, relying on pre-designed questionnaires to collect numerical results. With this design, it becomes possible to use statistics to study how practices in sustainable logistics relate to customer satisfaction. A survey at the strategy layer gathers information directly from Native Denims customers. Data for this project was gathered all at once to present what

customers currently think. At the last level, information from data is examined through statistics to look for connections and patterns.

### **3.3 Research philosophy**

A positivism philosophy is used for this research since it believes reality can be viewed and assessed free from any distortion. This research seeks to look at the impact of sustainable management on logistics and customers in the fashion sector by focusing on Native Denims, Ireland. Therefore, positivism is a suitable approach. Within the positivist approach, the study uses data gathered from observation and experimentation to search for standardised patterns. Through this, the research functionalities prevent subjective judgments and rely only on reliable facts.

Using statistical analysis and grouped data collection is made possible by positivism, making it simple to assess how logistics sustainability influences customers' happiness. The process allows research functionalities to create hypotheses and evaluate them with real data, confirming that the study is dependable and valid (Maksimovic and Evtimov, 2023). The methodical way of positivist research ensures the same outcomes can be seen repeatedly, making the results helpful in running Native Denims. As a result of using positivism, the research process is organised, separates facts from opinions, and depends on observations to reach conclusions. Since the research uses a fixed research design and standard tools, it reduces the effects of research functionality bias. In general, a positivist approach allows the research to show the link between sustainable activities in logistics and customer satisfaction, making the results a reliable basis for setting strategic goals in the fashion industry.

### **3.4 Research approach**

The research functionalities are formulated through deductive procedures that start with existing theories that lead to the creation of hypotheses, all of which are then examined with observation and analysis. Using this method is fitting for the current study due to the intention of testing well-known theories about sustainability, logistics performance, and customer satisfaction within the context of the Irish fashion industry (Hall *et al.*, 2023). Starting with general principles such as the belief that sustainable logistics create happier customers, the study attempts to test these ideas with order processing at Native Denims. Before anything else, existing research on sustainable logistics and its influence on customer experience is reviewed as a starting point. These findings create specific assumptions, such as increasing customer satisfaction when companies use sustainable packaging, streamlining their supply chain, and

reducing carbon emissions. Hypotheses are converted into quantifiable measurements and examined through customer and company information data.

The way the deductive approach is organised makes it easier for research functionalities to avoid confusion during their work. This method allows the research functionalities to keep the variables under control and analyse them using statistical tools. With this approach, the research results become applicable to cases beyond the original Native Denims example. Furthermore, the positivist philosophy, which stresses objectivity and evidence, goes well with using the deductive approach. Moving from theory to observation allows the research to rely on previous knowledge as it updates it. This helps Native Denims consistently evaluate the role of sustainability in logistics and decide how to meet customers' expectations, guided by objective data analysis.

### **3.5 Research design**

The research was completed using an exploratory design since it helps discover solutions when the problem is not easily described. Due to this strategy, the research functionalities could examine patterns, ideas, and phenomena, since the framework of a hypothesis was not a limitation. A flexible survey approach enabled the study to discover new ideas and prominent variables for additional study. The research design used in this study collects and analyses data numerically using only a primary quantitative approach. The study's design supports the research to determine how sustainable logistics strategies may affect customer happiness in the fashion area, primarily for Native Denims. Focusing on one data collection method, such as surveys or questionnaires, helps the study avoid errors and provides accurate results. There are many benefits to using the primary quantitative approach. Standardised data from a larger sample helps the research functionalities spot trends and similarities (Wellman *et al.*, 2023). One way to do this is by collecting and coding customer opinions on when things arrive, the reliability of packaging, and how satisfied they are. The study can clearly show links between sustainability practices and customers' thoughts, making its results useful outside this study.

Since sustainable strategies in fashion logistics are understudied, the research follows an exploratory design to discover rich information about their impact on customer satisfaction. Through exploration, the research can uncover trends, produce new insights, and better explain the way Native Denims, Ireland functions. Since sustainability in fashion logistics is constantly evolving, this design allows for discovering keywords not included in the published literature. Exploration enables businesses to collect information about how customers see sustainability



and assess service offerings (Makri and Neely, 2021). Even with rigid collection methods, the research maintains a flexible approach to looking at relationships and new insights, contributing to potential new in-depth studies. This method allows the research to adjust to new information and concentrate on the primary research agenda.

The simplicity of the data collection process is also backed by the design. Because only one technique is applied, the research process is straightforward and easily handled, reducing the risk of confusing different methods. Such benefits are most apparent when working within the limits of time or cost, which often appear in small or medium-scale business research. A mono-method quantitative design is designed to support deductive research and positivist ideas, since it depends heavily on testing hypotheses through observation. Since the data collection instrument is organised, every answer from each respondent follows a similar process, avoiding bias and making it easy to compare the results. With this method, Native Denims can learn how customers assess the brand's sustainability and whether it impacts their satisfaction. As a result, this design ensures suggestions for improvements in sustainable logistics are firmly based on evidence.

### **3.6 Research choice**

The term research choice can be defined as the decision-making process of the research functionalities based on which the research will be performed. Mainly, three research choices are qualitative, quantitative, and mixed (Mulisa, 2022). For this particular research, a mono-quantitative research choice has been implemented. The proper outcome of the research can be achieved with the help of this strategy effectively. In order to perform any research, the perfect method for data collection is supposed to be used. The perfect data collection method could enhance the accuracy of the research result (Karunarathna *et al.*, 2024). Apart from that, consistency is required during the data collection properly while performing the research to achieve accuracy. This can be perfectly done by using the mono quantitative method in the research, which is why it is significant to apply the mono quantitative research choice for this particular research.

On the other hand, the proper interpretation and analysis of the data is also an important matter. The proper analysis and interpretation of the factual data, such as numbers and calculations, can be easily interpreted with the help of the mono quantitative research choice, which is another significant reason behind implementing this method as the research choice. Furthermore, identifying and implementing the variables properly in the research is crucial, as

the outcome depends on the research variables. The selection of adequate variables for the research can be perfectly done by using the mono-quantitative research method as the research choice. This research will consider several variables, such as sustainable strategy, customer satisfaction, motivational factors for implementing sustainability in logistics, and native denims. The implementation of such variables will assist in receiving the needful outcome of the research perfectly.

### **3.7 Research strategy**

The research strategy is a plan that ideally helps conduct research. The proper answer to the initially mentioned research question can be perfectly received by implementing the proper research strategy, which is one of the essential matters to be considered. Mainly, three types of key research strategies are present, which can assist researchers in performing the research perfectly. They are: Qualitative, quantitative, and mixed methods.

For this particular research, the researcher will implement a quantitative research strategy. The main reason behind implementing this method is to identify the real-time data perfectly. Identifying the real-time data is crucial for this particular research, as this research focuses on several factors, such as sustainability in the logistics of the Irish fashion sector. That is why it is essential to implement the quantitative strategy to gather and analyse the real-time factual data. Apart from that, achieving the critical insights from the research data to receive a proper outcome is essential (Lim, 2025). The adequate critical insights from this particular strategy's data helped the researcher. That is why applying this research strategy to this research topic is significant. Moreover, collecting the firsthand information could assist in gathering an adequate answer to the previously mentioned research questions. In order to gather firsthand information regarding the data collection, it is essential to implement the survey as a method of data collection. The implementation of the survey method for collecting data can be done when the research strategy is quantitative, as the survey method deals with factual data, numbers, and calculations. Apart from that, the proper data analysis can be done with this method's help, which is crucial.

### **3.8 Data collection**

In order to perform research successfully it is essential to perform the data collection method successfully and adequately as based on the data collection and the collected data the research outcome depends. Mainly two types of data are present, one is primary data and the other one is secondary data (Taherdoost, 2021). Primary data is the type of data that is evidence-based

based and real-time information can be gathered through this. However, the secondary data is mainly based on the existing literature, published articles, and reports. Apart from that, in terms of the collection process, the data can be divided into three types: qualitative data, quantitative data, and mixed in nature.

For this particular research a primary quantitative data has been collected. The main reason behind collecting this particular data is to gather the real-time factual data, which is one of the essential matters for this research topic. Properly analysing the collected numerical data further can help the researcher correctly identify the real-time facts and the consumer's behaviour. That is why it is significant to implement this kind of data collection method for this research. Several benefits are present for this data collection method. However, several other factors are also present, which sometimes create an impact during the research. In primary research, consent from the participants plays a pivotal role as the primary data collection is a method where data can be gathered from the human participants only (Xu *et al.*, 2020). For developing the survey questions, closed-ended questions have been selected that are suitable for SPSS through research generation. Not only that some demographic questions have also been included in the methodology, which is why taking consent with the help of the university-provided consent form is necessary. An online survey has been designed for this research to collect data from informed consent. The collected data for the research has been stored in the password-protected university computer to manage this privacy properly. Through survey-based data collection, this can be possible to keep upgrading the sustainable logistics development for the betterment of the fashion sector.

### **3.9 Sampling strategy**

The term research sampling strategy can be defined as a statistical method in which the data can be differentiated according to the researcher's requirements. Regarding the data sampling strategy, two techniques are present: probability and non-probability (Pace, 2021). Furthermore, probability sampling can be divided into a method to collect the data randomly. On the other hand, the non-probability sampling consists of several parts, and among the several parts, Stratified sampling is present as a strategy to collect data. The stratified sampling involves making subgroups from the raw collected data. Instead of implementing the raw collected data from the participants, this strategy divides the data into sub-categories. After that, based on the sub-categories, the data analysis is performed.

The researcher has implemented stratified sampling as the research strategy for this research. The main reason behind applying this to the research is to make sub-categories of the collected

raw data and perform the analysis properly. After the development of the sub-categories of the raw data, a random sample has been identified to ensure the expected outcome of the research is adequately represented. On the other hand, identifying the information regarding the subjective area of the research is also an essential matter to consider. Identifying the subjective area could assist in identifying the variable regarding the specific research topic, which can be perfectly done with the help of the stratified sampling method. That is why implementing stratified sampling as the research method is significant and justified for this research topic, as this research is entirely based on the primary quantitative data.

### **3.10 Data analysis**

The data analysis can be defined as the complex process that can be done in several parts. Firstly, identification of the pattern and the trends of the data is one of the essential matters to be considered. Correctly identifying the pattern and the trends could further assist in identifying the nature of the data for the analysis.

The quantitative method of data analysis has been selected for this particular research. The implementation of such methods of data analysis could assist researchers in performing the necessary calculations and getting proper insights into factual data from the calculations (Sarker, 2021). That is why the researcher has incorporated SPSS as a software to perform statistical data analysis properly. Implementing the statistical analysis method using SPSS could assist the researcher to gather the relevant factual insights properly with the help of the descriptive statistics, t-test, Correlation test, hypothesis test, and all. The implementation of the previously mentioned methods can be performed with the help of the SPSS software properly and easily the data of the 100 participants can be interpreted.

On the other hand, data-driven decision-making is one of the essential parts to achieve the proper outcome of the research. The data-driven insights and their related facts can be gathered using the statistical methods, which is one of the essential matters. Moreover, testing the hypothesis for the research and testing the data validity is also an essential matter. Implementing the statistical method for the research could assist the researchers in performing the hypothesis and data validity tests. The proper validity of the data and the values of the hypothesis could be identified with the help of this strategy. As a result, the proper outcome of the research can be easily gathered.

### **3.11 Ethical considerations**

Ethical considerations in primary quantitative research are crucial to ensure the integrity of the research process and the protection of participants. Firstly, informed consent is essential;

participants must thoroughly know the study's purpose, procedures, risks, and benefits before participating. Additionally, researchers should guarantee confidentiality and anonymity, safeguarding personal information to protect participants' privacy. In order to maintain it perfectly, the GDPR 2018, as per the UK, will be implemented here in the research to perform the research perfectly (gov.uk, 2025).

Another important aspect is the principle of beneficence, which mandates that research maximize benefits and minimize potential harm to participants. This includes ensuring the research design is sound and the anticipated knowledge gain justifies any risks. Transparency in data access and production is also vital, as it fosters trust and allows for the replication of findings. Researchers should disclose any conflicts of interest and maintain objectivity throughout the research process. Finally, ethical review boards often oversee studies to ensure adherence to ethical standards. By addressing these considerations, researchers can contribute to their work's credibility while respecting participants' rights and welfare.

### **3.12 Limitations**

Primary quantitative research has several limitations. First, it often relies on structured data collection methods, which may not capture the full complexity of human behaviour or experiences. This can lead to oversimplification. Second, standardized instruments may introduce biases if they are not culturally relevant or properly validated. Third, sample size and selection can affect the generalizability of findings; a non-representative sample may limit the applicability of results. Additionally, quantitative data may overlook contextual factors that influence outcomes, reducing the depth of understanding. Lastly, relying on numerical data can sometimes ignore qualitative insights that enrich research findings.

### **3.13 Conclusion**

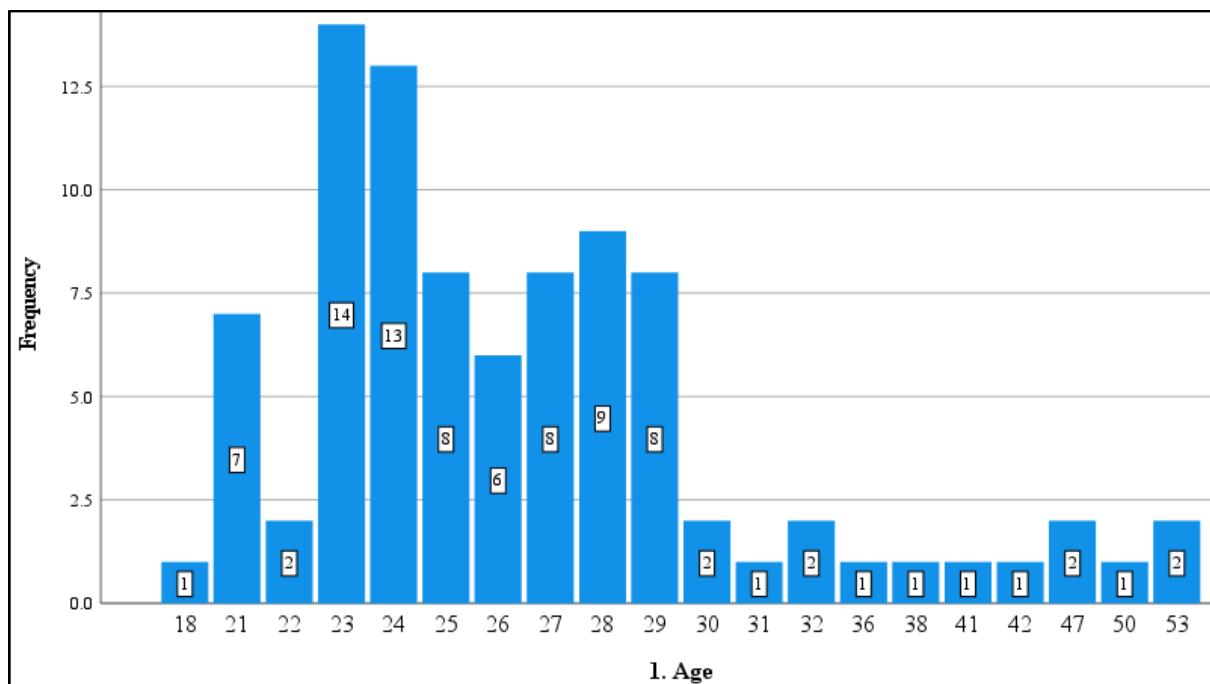
From the above discussion, several factors are present that are creating a positive impact on the research. The factors such as research philosophy, strategy, design, data collection, and analysis methods have several advantages and disadvantages. However, considering the advantages of performing this particular research, the researcher has selected and justified it appropriately. On the other hand, the negative factors impacting the research have also been discussed along with their mitigation process. Moreover, the ethical considerations that should be considered for any primary research have been incorporated here, along with the marking of the limitations.

## Chapter 4: Findings and Results

### 4.1 Introduction

This chapter will focus on findings and results by transforming the raw data into meaningful insights, validating the research questions. The data collection method follows the primary quantitative data for evaluating consumer behaviour regarding sustainable logistics strategies. Sustainable logistics includes the optimisation of routes, the use of sustainable textile alternatives to enhance the engagement of customers, and their experience. The result section will present the findings objectively from data collection through statistical analysis, using SPSS software. The results will be presented in a structured way to develop practical insights regarding the research objectives, enhancing the quality of the research.

### 4.2 Results and analysis



**Figure 8: Age Distribution**

(Source: Retrieved from SPSS)

The age distribution graph shows a wide range of respondents between the ages of 18 and 53 years. Most occurrences were obtained at the age of 23, where 14 respondents were involved, and at age 24, when 13 respondents were involved. There are between 8 and 9 respondents aged 28, 25, 27, and 29. The sample has been predominantly represented by younger seniority in the early twenties, and little representation of the older age groups, with the majority of their age groups being above 36, and only 1 or 2 respondents. The distribution has been characterised

as representing a young base of respondents, with the highest base resting between 21 and 29 years, with equally higher levels of participation by the younger adult.

	Mean	Std. Deviation	Skewness	Kurtosis	Minimum	Maximum
2. Should Irish fashion companies invest more in sustainable logistics?	4.21	0.880	-1.339	2.448	1	5
3. Are sustainable strategies important for logistics in fashion?	4.21	0.855	-1.418	3.038	1	5
4. Can sustainable logistics lower fashion product prices?	3.04	1.170	-0.174	-0.763	1	5
5. Is recycling fashion products acceptable to Irish customers?	3.36	1.248	-0.425	-0.717	1	5
6. Would you pay extra for sustainable packaging and delivery?	2.73	1.225	0.191	-1.017	1	5
10. Do you like wearing denim?	4.10	1.071	-1.213	0.885	1	5
11. How would you rate Native Denims' delivery service?	3.33	1.091	-0.224	-1.324	1	5
12. Does knowing a brand uses sustainable logistics increase satisfaction?	3.62	1.012	-0.774	0.363	1	5
13. Do sustainable logistics and packaging boost loyalty to Native Denims?	3.42	0.983	-0.577	0.036	1	5
14. Do sustainability practices influence your recommendations of a brand?	3.77	1.430	-0.661	-1.191	1	5

**Table 1: Descriptive Statistics**

(Source: Retrieved from SPSS)

The descriptive statistics have given information regarding how respondents restrained their opinions on several dimensions of sustainable logistics and other related practices in the fashion industry. The mean values have indicated that the respondents have demonstrated the highest rating on the significance of the sustainability approaches in logistics and the necessity of the Irish fashion companies to consider greater attention on the sustainability approaches, with mean values of 4.21 and 4.21, respectively. These variables have also had high negative skewness (-1.418 and -1.339) and positive kurtosis (3.038 and 2.448), meaning that most of the respondents have the propensity of giving high ratings regarding these variables, bearing a tendency towards the high end. The preference for denim has also been given a huge mean

score (4.10) with negative skewness (-1.213) and positive kurtosis (0.885), indicating that there is a significantly positive feeling generally.

The satisfaction with the knowledge that a brand is using sustainable logistics has demonstrated a tendency with a mean of 3.62, but more clustering of positive values. Similar trends have been recorded by the Sustainable Logistics and Packaging, having a resultant mean of 3.42 of the boosts in loyalty. The acceptance of recycling (3.36) and willingness to pay extra (2.73) have been lower with slight negativeness and positiveness in the skewness of recycling and willingness to pay, respectively. The misperception that sustainable logistics might reduce prices has been characterised with a mean of 3.04, indicating varied viewpoints. The delivery service averages 3.33 with negative kurtosis (-1.324), indicating more diversified responses. The data have pointed to a significant positive attitude towards sustainable strategy and investments, to a high value of denim, and to middle-ground satisfaction and loyalty influence. In contrast, the cost aspect has prompted relatively neutral or divided responses.

		Q2	Q3	Q4	Q5	Q11	Q12	Q13
Q2	Pearson Correlation	1	.567**	-0.031	-0.038	.324**	0.078	0.156
	Sig. (2-tailed)		0.000	0.772	0.719	0.002	0.465	0.143
Q3	Pearson Correlation	.567**	1	-.212*	-0.113	0.141	0.093	.241*
	Sig. (2-tailed)	0.000		0.045	0.288	0.186	0.382	0.022
Q4	Pearson Correlation	-0.031	-.212*	1	.389**	0.076	0.195	.238*
	Sig. (2-tailed)	0.772	0.045		0.000	0.475	0.066	0.024
Q5	Pearson Correlation	-0.038	-0.113	.389**	1	-0.005	.321**	.270*
	Sig. (2-tailed)	0.719	0.288	0.000		0.959	0.002	0.010
Q11	Pearson Correlation	.324**	0.141	0.076	-0.005	1	0.136	0.024
	Sig. (2-tailed)	0.002	0.186	0.475	0.959		0.202	0.819
Q12	Pearson Correlation	0.078	0.093	0.195	.321**	0.136	1	.478**
	Sig. (2-tailed)	0.465	0.382	0.066	0.002	0.202		0.000
Q13	Pearson Correlation	0.156	.241*	.238*	.270*	0.024	.478**	1
	Sig. (2-tailed)	0.143	0.022	0.024	0.010	0.819	0.000	



**Table 2: Correlation Matrix**  
(Source: Retrieved from SPSS)

The correlation matrix has indicated several significant relations among surveyed variables associated with sustainable logistics in the fashion industry. There is a significant positive relationship ( $r = 0.567$ ,  $p < 0.01$ ) between question 2 (Q2), which evaluates how they support investing in the concept of sustainable logistics, and question 3 (Q3), which checks on how they consider the use of sustainable strategies. This has reflected that the increased value attached to the sustainable strategies has been linked to increased support for the investment. Q4, which looks at whether sustainable logistics can reduce the prices of fashion products, has indicated the presence of a strong positive correlation with Q5 ( $r = 0.389$ ,  $p < 0.01$ ), which means that acceptance of recycling is related to having a greater belief that it can reduce prices based on sustainable logistics. Apart from that, Q5 has correlated positively with Q12 ( $r = 0.321$ ,  $p < 0.01$ ) and Q13 ( $r = 0.270$ ,  $p < 0.01$ ), which implies that acceptance of recycling has been correlated with greater satisfaction and perceptions of loyalty.

The satisfaction derived by customers from the fact that a given brand utilises sustainable logistics (Q12) has also been significantly positively correlated with an increase in customer loyalty due to sustainable logistics and packaging (Q13) ( $r = 0.478$ ,  $p < 0.01$ ), indicating that satisfaction is strongly linked with loyalty. Q2 has shown a positive correlation also with delivery service rating (Q11) ( $r = 0.324$ ,  $p < 0.01$ ), which means that delivery satisfaction has had its relationship with better investment support. Overall, the matrix has also indicated that positive impressions of the sustainable practice have been in an interconnected relationship with satisfaction and perceived importance, strongly impacting both attitude towards loyalty and investment.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.478 <sup>a</sup>	.229	.220	.868
a. Predictors: (Constant), 12. Does knowing a brand uses sustainable logistics increase satisfaction?				

ANOVA
-------

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.681	1	19.681	26.132	.000 <sup>b</sup>
	Residual	66.275	88	.753		
	Total	85.956	89			
a. Dependent Variable: 13. Do sustainable logistics and packaging boost loyalty to Native Denims?						
b. Predictors: (Constant), 12. Does knowing a brand uses sustainable logistics increase satisfaction?						

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.739	.342		5.089	.000
	12. Does knowing a brand uses sustainable logistics increase satisfaction?	.465	.091	.478	5.112	.000
a. Dependent Variable: 13. Do sustainable logistics and packaging boost loyalty to Native Denims?						

**Table 3: Linear Regression Result**

(Source: Retrieved from SPSS)

This analysis has examined the connection between awareness of a brand that employs sustainable logistics and the feeling that sustainable logistics and packaging will increase loyalty to Native Denims. The correlation coefficient (R) constructed in the model is slightly positive (0.478) and, therefore, demonstrates a modest positive relationship between the two variables. The results obtained with an R Square of 0.229 have demonstrated that 22.9 of % variance in customer loyalty perception is explained by the satisfaction that brings about knowledge of the sustainable logistics. The ANOVA outcomes have proved that the model has been statistically significant ( $F = 26.132$ ,  $p < 0.001$ ), which proves the independent variable has been a crucially important predictor. Under the coefficients table, it has been able to determine that there has been a constant of 1.739 and the unstandardized coefficient of 0.465 for the predictor variable. This has indicated that as the satisfaction level of knowing about sustainable logistics goes up by one unit, the perceived improvement in loyalty goes up by 0.465 units. This has been corroborated by the standardised beta value of 0.478, which shows

a moderate effect. The statistical significance has been great, as exhibited by the p-value of less than 0.001. The results have revealed that increased satisfaction with awareness of the sustainable logistics of a brand has been linked highly to increased perception of loyalty on the part of the customers.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.567 <sup>a</sup>	.322	.314	.729
a. Predictors: (Constant), 3. Are sustainable strategies important for logistics in fashion?				

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.206	1	22.206	41.771	.000 <sup>b</sup>
	Residual	46.783	88	.532		
	Total	68.989	89			
a. Dependent Variable: 2. Should Irish fashion companies invest more in sustainable logistics?						
b. Predictors: (Constant), 3. Are sustainable strategies important for logistics in fashion?						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.750	.389		4.503	.000
	3. Are sustainable strategies important for logistics in fashion?	.585	.090	.567	6.463	.000
a. Dependent Variable: 2. Should Irish fashion companies invest more in sustainable logistics?						

**Table 4: Linear Regression Result**

(Source: Retrieved from SPSS)

The regression analysis has studied the connection between the perception of the importance of sustainable trends in logistics and trust in the necessity that Irish fashion companies pay

more attention to sustainable logistics. The model has recorded a correlation coefficient (R) of 0.567, a moderate positive relationship between the two variables. The R Square determination to be 0.322 shows that the perceived importance of sustainable strategies has determined 32.2% of the variance in investment support. Apart from that, significant results of ANOVA have shown that the model could have been significant ( $F = 41.771$ ,  $p < 0.001$ ), which validates that the predictive variable was the independent variable. The values in the table of coefficients indicate that the constant is 1.750 and the slope of the independent variable, 0.585. It has meant that with one unit change in the perceived importance of sustainable strategies, there has been a corresponding increase in the level of agreement about increased investment by 0.585 units. The moderate positive effect size has also been confirmed through a standardised coefficient of 0.567. The significance level ( $p < 0.001$ ) indicates this relationship has been statistically significant. On balance, the analysis indicates that more powerful convictions concerning the significance of sustainable tactics have been linked to enhanced public assistance towards funding sustainable logistics.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.389 <sup>a</sup>	.151	.142	1.084
a. Predictors: (Constant), 5. Is recycling fashion products acceptable to Irish customers?				

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.454	1	18.454	15.710	.000 <sup>b</sup>
	Residual	103.368	88	1.175		
	Total	121.822	89			
a. Dependent Variable: 4. Can sustainable logistics lower fashion product prices?						
b. Predictors: (Constant), 5. Is recycling fashion products acceptable to Irish customers?						

Coefficients				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	1.820	.329		5.527	.0001
	5. Is recycling fashion products acceptable to Irish customers?	.365	.092	.389	3.964	.0001
a. Dependent Variable: 4. Can sustainable logistics lower fashion product prices?						

**Table 5: Linear Regression Result**

(Source: Retrieved from SPSS)

This analysis has explored the correlation between the acceptance of recycling fashion products and the idea that sustainable logistics would help reduce the prices of fashion products. The model has stated a correlation coefficient (R) of 0.389, which implies a positive connection of medium magnitude between the two variables. The value of R Square = 0.151 has demonstrated that the degree of acceptance toward recycling has explained 15.1% of the variance in the belief concerning price reduction. As the results of ANOVA have shown, the model has been statistically significant ( $F = 15.710$ ,  $p < 0.001$ ), demonstrating that the predictor variable has exerted a meaningful influence upon the dependent variable. This importance has signified that acceptance of the recycling factor has served as a valid implementation in explaining the perception that sustainable logistics can assist in decreasing prices.

The coefficients table has shown a constant mean value of 1.820, reflecting the dependent variable's zero-level score when the predictor is zero. The unstandardized coefficient has been 0.365, indicating that when there is an increase of one unit in the scale of acceptance of recycling, the belief that sustainable logistics can reduce prices has increased by 0.365 units. The effect size has been reflected by the standardised beta coefficient of 0.389, which illustrates a moderate effect size. This relationship is significant at the 0.001 probability level with a t-value of 3.964. The results have indicated that the more people accept the recycling practices amongst the customers of Irish fashion, the more they believe in the economic advantage of such sustainable logistics, in reducing the prices of the products. This outcome has given its empirical relevance to adopting recycling efforts as a subset of larger sustainable logistics planning in the fashion industry.

### 4.3 Summary

This chapter has provided a statistical description of the correlations between sustainable practices and the perceptions of the Irish fashion industry. In regression models, considerable

positive relationships have been demonstrated between the perceived significance of sustainable strategy, acceptance of recycling, and the investment or belief in price reduction. The correlation has revealed moderate associations among the sustainability awareness, satisfaction, and loyalty. Descriptive statistics have identified the respondents as mostly young, plus a positive orientation towards sustainable logistics. Positive attitudes and behaviours have been associated with sustainable initiatives.

## Chapter 5: Discussion

Consumers are more concerned about sustainable measures due to the rise of ethical and environmental concerns within the complex business dynamics. Companies are nowadays integrating sustainable strategies within their business operations to ensure that customers' demands are met and they are operating efficiently to facilitate success in the market (Khan *et al.*, 2023). Customers' strong demand in terms of convenience measures has offered an opportunity to the ready-made garments and fast fashion models. They have accounted for different sustainable functionalities in the business operations, such as logistics, packaging facilities, and the incorporation of electric vehicles for their delivery facilities.

Consumers are becoming more aware of the environmental and social impact of the fashion industry, driving demand for sustainable alternatives. This growing awareness among the customers has allowed Native Denims to incorporate sustainable approaches into its application. Brands are responding by curating sustainable collections and offering more transparency within the SCM approaches to gain brand reputation in the market (Fernández *et al.*, 2025). The strong recognition in the market allows it to attract the attention of customers, which indicates transparency and accountability within its operations and delivers positive outcomes in the organization's performance. Therefore, implementing sustainable strategies, such as using eco-friendly packaging solutions and fuel-efficient vehicles, allows for streamlining of the logistics process, which leads to a reduction of the lead times and an improvement in the order fulfilment efficiency. As a result, this feature has offered convenience within the customer facilities and facilitated success within the company's performance.

The fast-fashion industry is also focused on ensuring that the brand's sustainability efforts align with consumer demands and values, which ensures a sense of connection and loyalty (Blazquez-Resino *et al.*, 2025). Therefore, companies that actively address the environmental and societal issues and adapt their operations according to that are found to build a positive brand image and gain consumer trust. As per the reports of The Guardian, it can be ascertained that 80bn and 150bn are made every year, of which 10% and 40% of the clothes are not sold. This creates complications in managing the waste facilities and accounts that address transparency. Production volume can help curb the issues (The Guardian, 2025). This accounts for companies focusing on these issues and developing practical, sustainable measures to enhance the company's performance. Applying sustainable logistics practices involves a traceable supply chain and eco-friendly packaging that reflects that the company has taken the initiative in ensuring sustainability in its operations. Moreover, the streamlined and efficient

logistics offer optimised speed and efficiency, leading to faster and more convenient deliveries, directly impacting customer satisfaction and driving revenue.

From the findings, it can be analysed that incorporating sustainable logistics in Native denim has ensured positive measures in customer preferences. The company has been adapting to customers' demands and bringing efficient measures within its operations that differentiate itself from its competitors and attract customers. Therefore, focusing on transparency, reduction of waste, and faster delivery times enhances customer satisfaction, which helps enhance the company's performance. Investments in technological measures to obtain efficient measures within the supply chain operations can encourage innovation within the company's operations, ensuring new measures. Thus, Native Denims is looking for more innovative solutions in developing its items with a sustainable focus for changing the fashion sector.

The positive relationships disclosed in the statistical analysis regarding sustainable logistics satisfaction and loyalty to Native Denims are consistent with previous literature establishing a strong connection between ethical operational practices and customer retention (Holloway, 2025). The regression results, where sustainable logistics satisfaction accounted for more than 22% of the explained variance in loyalty, reinforce the idea that logistics is viewed as more than a mere functional requirement but a source of potential competitive differentiation through a socially responsible supply chain. Consistent with Stakeholder Theory, all stakeholder expectations, including ultimately the environmentally conscious consumer, have to be satisfied for sustainability to be viable in the long term. For Native Denims, sustainable practices throughout the supply chain may create expectations of corporate social responsibility and vested interest to support sustainable practices, which can help generate loyalty to the brand or protect against other competitive forces.

The descriptive information in addition screen that Irish clients' location places special excessive significance on sustainable logistics strategies, as indicated by using the imply rankings exceeding 4.2 for questions referring to the need for such investments. This displays a broader societal shift in Ireland in which environmental awareness has grown significantly, especially amongst more youthful demographics who shaped the bulk of the sample. Similar findings indicate that more youthful purchasers displayed a heightened sensitivity to the environmental effects of their shopping decisions. This demographic fashion shows that manufacturers failing to conform to sustainability needs threaten to alienate a sizable part of the target client base.

However, the study's findings additionally spotlight nuanced challenges. For instance, the exceedingly decrease imply rating of 2.73 for willingness to pay more for sustainable



packaging and shipping factors closer to a continual attitude–behaviour gap. The purchasers may also specify robust help for sustainable practices, but their rate sensitivity can restrict real uptake (Williams *et al.*, 2023). This paradox calls for strategic balancing; agencies need to combine sustainability in approaches that do not disproportionately increase expenses for the client, or they need to correctly talk about the long-term fee and moral vital of such investments. The literature evaluation suggests that sustainable logistics is a vast construct, from electric-powered cars and biodegradable packaging to opposite logistics structures and many interpretations. The effects of this take a look at verify that sustainable logistics may have an immediate effect on the emblem image and consumer pride. Based on the effects, the relationship between recycling popularity and perceived emblem loyalty advantages appears promising, helping the belief that round economic system efforts resonate with customers. This is consistent with the environmental and consumer engagement advantages of opposite logistics in fashion. Programs, which include restore offerings and take-back offerings, permit Native Denims to shape deeper connections with customers even as reinforcing their environmental identity.

One measurement that emerged from the evaluation is transparency. Literature cites that transparency in sourcing (in addition to logistics processes) builds consider amongst customers, and the correlation matrix within the take a look at shows that awareness of sustainable practices will significantly enhance pride levels. This calls attention to the fee of verbal exchange strategies; surely adopting sustainability practices is useless until they are communicated to customers. For Native Denims, enforcing labelling and different sorts of storytelling on social media, or using virtual traceability tools, will align sustainability with visibility or verification. From a Theory of Planned Behaviour standpoint, the results indicate that attitudes around sustainability and the subjective norm of buying from an ethical brand can strongly impact purchase intention.

The Triple Bottom Line framework provides another valuable perspective to help discuss these results. Native Denims' sustainable logistics aims for the planet dimension through reduced emissions and eco-friendly materials, the people dimension through fair wages and community engagement, and the profit dimension by integrating the elements of a sustainable offering to increase customer loyalty and brand equity. The regression results further suggest these intertwined benefits are independent when favorable environmental practices are tied directly to customer satisfaction. This is then tied to profitability because customers purchase and refer other customers again.

The findings additionally mirror broader enterprise demanding situations recognised within the literature. High expenses of sustainable materials, shortages of professional labour in inexperienced logistics, and infrastructural barriers are specifically acute for SMEs like Native Denims (Sahoo *et al.*, 2024). The multinationals can soak up the expenses of transitioning to electric-powered fleets or superior carbon-monitoring systems. In contrast, smaller manufacturers should prioritise measures that provide the best return on each environmental and customer satisfaction metric. For example, switching to biodegradable packaging can be more possible quickly than overhauling the whole transport fleet. Incremental adoption, supported through focused advertising campaigns, should assist in controlling expenses while constructing a sturdy sustainability narrative.

Interestingly, the facts found out combined perceptions concerning whether or not sustainable logistics can lessen product expenses, with an average of 3.04. In all likelihood, this ambiguity stems from customer uncertainty about the fee systems of sustainable practices. The performance profits from direction optimisation or decreased waste may also decrease expenses, but the top-rate expenses of sustainable inputs frequently offset those savings. Clear verbal exchange approximately fee drivers, coupled with proof of long-term savings, can assist align customer perceptions with commercial enterprise realities.

An extra issue worth highlighting is the high-quality dating among shipping carrier ratings (Q11) and help for inexperienced logistics pricing (Q2). The assumption here means that customers might still understand sustainable logistics practices as greater synergistic in place of circumspect. This end is consistent with sustainable logistics that can improve company performance, including operational performance and reliability, while being implemented effectively. Native Denims can aspire for a regularity of shipping carriers at the same time as pursuing innovative practices.

The awareness among the more youthful respondents, in particular, has a few strategic implications. The more youthful respondents no longer have a tendency to be more environmentally accountable but are also more digitally immersed. This lets them realise sustainability content added through direct advertising channels and preserve messaging through social media, influencer advertising, and greater content formats (Băcilă *et al.*, 2022). In particular, the connection and insights into sustainability practices at the back of the scenes probably affect logistics initiatives on notion and loyalty to the brand.

However, the constraints of this observation need to be stated within the discussion. First, the studies concerned a single SME, which boundary the generalisability. Moreover, the observer hired a mono-approach quantitative design for the case observe. This means the studies cannot

unpack the breadth and intensity of patron motivations or emotional responses to sustainability. Qualitative follow-up studies, along with interviews or awareness groups, can gain from similar research into why positive clients are unwilling to pay more; despite finding it treasured in principle, and such inquiries ought to inform packages greater immediately with interventions in product pricing, product layout, and communication. Second, the capacity for greenwashing within the area also highlighted the significance. Similarly, the fake or deceptive claims can quickly smash trust, specifically among greater environmentally aware clients. In this instance, Native Denims may use a third-party organisation to offer certification, credible reviews, and measures related to their sustainability targets.

Finally, this observation's findings also imply the capacity for coverage making and enterprise partnership in encouraging SME sustainability transitions. For example, authorities' incentives centred on freight subsidies, electric-powered automobiles with subsidies, or regularly occurring eco-labelling structures can decrease the barrier to access for small brands. In addition, partnerships with different sustainable style actors are viable at a small scale with the usage of shared distribution hubs and partnerships at a bigger scale via recycling to assist with proportion expenses and boost patron recognition at a scale level.

## **Chapter 6: Conclusion**

### **6.1 Conclusion**

This study evaluates the impact of sustainable consumer logistics on consumer satisfaction in the Irish fashion industry, using Native Denims as the focal case. Results indicated a positive and significant relationship between sustainable logistics and improved customer trust, loyalty, and satisfaction overall. Sustainable logistics approaches such as eco-friendly packaging, local sourcing, reverse logistics, and supply chain visibility have been shown to significantly impact consumer valuations of brands, particularly among younger consumers who represented a significant majority of survey respondents.

The research also identified several barriers that inhibit the adoption of sustainable logistics practices, which included cost barriers, lack of skilled labour in the green operations field, and the ongoing attitude-behaviour gap of consumers who express concern for sustainability but show price sensitivity. The findings highlight that indigenous SMEs such as Native Denims can leverage sustainability as a competitive advantage. Small fashion companies should incorporate sustainable practices into their logistics operations and connect them with consumer values, increasing brand perception and differentiating themselves in a competitive industry while generating beneficial environmental and social impacts.

### **6.2 Linking with objectives**

#### ***Linking with Objective 1: Understanding the Effectiveness of Sustainability in Logistics***

The first goal sought to apprehend the effectiveness of sustainability in logistics for enhancing purchaser satisfaction within the fashion industry. This was addressed through a mixture of literature evaluation insights and quantitative evaluation of survey data. The literature suggests that sustainable logistics can supply each environmental and purchaser value, especially whilst practices such as decreased carbon emissions, moral sourcing, and green packaging are implemented. The case of Native Denims became tested on this light, revealing that its adoption of neighbourhood sourcing, demand-led inventory management, and environmentally aware packaging decreased environmental impact and improved order fulfilment efficiency.

The findings bolstered this connection by displaying an enormous, high-quality correlation between attention to sustainable logistics and customer satisfaction. The regression evaluation indicated that pleasure derived from understanding a logo that uses sustainable logistics accounted for almost 1 / 4 of the variance in loyalty scores. This at once helps Stakeholder Theory, which emphasises that addressing the values of all stakeholders, along with

environmentally conscious consumers, can generate accept as accurate with and loyalty. The effects additionally align with the Triple Bottom Line framework, wherein environmental stewardship (planet) contributes to purchaser pleasure (people), in the long run assisting economic sustainability (profit).

### ***Linking with Objective 2: Evaluating Factors Motivating Sustainable Operations***

The 2d goal was to understand the motivations going through the style enterprise in adopting sustainable practices to beautify customers' experiences in Native Denims. The diagnosed moral consumerism, emblem distinction, and adapting to converting environmental rules as the number one motivation. Young human beings are notoriously ignorant of their environmental effect; however, more and more call for transparency of deliver chains.

Deeper insights had been collected from the descriptive facts of the survey. Respondents rated sustainability techniques in logistics among the highest, alluding to the final significance of investing in sustainable practices in keeping with Irish style groups. Both questions concerning the significance of sustainable techniques in logistics obtained an average delta rating of 4.21. This suggests sturdy client backing of sustainability in Irish style, indicating that groups conducting sustainability are assembly marketplace expectations and are likely to have a point of distinction. For Native Denims, this point of distinction is superior primarily based on its self-described sustainable SME emblem in a marketplace ruled by larger, less nimble, scaled competitors.

### ***Linking with Objective 3: Identifying Issues in Integrating Sustainability***

The first objective of this assignment is to become aware of the problems encountered by Irish-style companies in integrating sustainability into logistics operations. The literature evaluation highlighted numerous substantial barriers, excessive expenses of sustainable materials, restricted access to professional labour in green logistics, and infrastructural constraints that make it hard for SMEs to match the skills of large firms. The staying power of the attitude–behaviour gap, in which customers explicitly support sustainability but face up to paying better prices, similarly complicates the commercial enterprise case for sustainable investment.

These demanding situations had been contemplated within the study's findings. While respondents valued sustainability, the imply rating for willingness to pay more for sustainable packaging and transport became relatively low at 2.73. These factors contribute to rating sensitivity as a vital barrier for SMEs scaling up sustainable initiatives. Additionally, the statistics endorse that a few customers continue to be unsure approximately the fee implications of sustainable logistics, as indicated by the impartial imply rating of 3.04 on whether or not such practices should lessen product prices. For Native Denims, those demanding situations

necessitate cautious monetary planning and prioritisation, ensuring sustainability measures are applied in approaches that supply value to customers without substantially elevating prices.

#### ***Linking with Objective 4: Recommending Strategies for Integration***

The fourth goal was to provide suggestions on overcoming the identified issues and integrating sustainability into logistics operations to improve consumer satisfaction in Native Denims. The results and literature suggest that many strategies could be deployed. First, transparency of both logistics' transactions and, more broadly, sustainability, was the most important driver of satisfaction and loyalty. Among consumers aware of a brand's sustainable logistics practices, consumers reported much more satisfaction, which is strongly related to loyalty. Tools such as digital supply chain monitoring, sustainability labelling, and storytelling through social media can help consumers get a clearer picture of what sustainability means.

Secondly, small and medium-sized enterprises (SMEs) can use small steps to manage the cost of adopting sustainability measures while growing their environmental profile. Of course, SMEs should start with measurable, low-cost to implement, high-impact measures, such as biodegradable packaging or optimising delivery routes, to begin building goodwill with their consumers. As consumers realize further steps are being taken, they will be more likely to support the company's transformation and long-term strategic changes like shifting to an electric vehicle-based delivery system or even introducing the whole reverse logistics system.

### **6.3 Limitations**

Although this paper gives a widespread contribution to expertise the relationship between sustainable logistics and customer satisfaction within the Irish style industry, numerous barriers must be acknowledged. The examination was targeted on one case examine, Native Denims, a single SME in this industry, and the findings cannot be generalized to different unbiased Irish-style SMEs or different markets. The unmarried case examine method enabled us to discover extensively the emblem's practices, however, for example, Native Denims' unique operational version and marketplace function, which might not be reflective of other Irish style businesses. Furthermore, even though survey records confirmed measurable correlations and styles in emblem awareness, buy intention, and customer point of view in sustainable style, a qualitative examination, consisting of interviews or focus groups with clients, could have provided loads extra intensity of insight.

Finally, the look at trusted self-mentioned data may be stimulated via social desirability bias. Respondents can also have overstated their help for sustainable practices to align with

perceived societal expectations, doubtlessly inflating the mentioned correlations among sustainability consciousness and client satisfaction.

#### **6.4 Future scope**

While this investigation lays the groundwork for subsequent research into sustainable logistics in the fashion sector, there is much potential to build on the analysis. Future studies might employ a comparative qualitative approach to compare several SMEs with larger companies in the Irish fashion sector. This would provide some overarching patterns and distinctions in the longer-term insights around how sustainability is adopted and implemented in the sector.

A mixed-methods approach for future research could enhance our understanding of how consumers behave regarding sustainable fashion. Quantitative surveys may not capture the complexities of the consumers' behaviour for diverse sustainability claims, so employing an alternative research method, such as qualitative interviews or focus groups may accommodate a more nuanced portrayal of consumers as it will show both the statistical trends and depth behind what consumers think, feel and do regarding sustainability claims in their shopping behaviour. In addition to research, it would be thrilling to glean extra insight into how rising technologies, including blockchain for deliver chain traceability or artificial intelligence for logistics optimisation, can also affect sustainability consequences and customer trust.

#### **6.5 Recommendations**

Based at the effects and highlighted issues, a few advocated subsequent steps may be made for Native Denims and different associated SMEs looking to embed sustainability inside their logistics practices at the same time as maximising customer satisfaction. The first advice notes that transparency needs to be emphasised because facts show that patron expertise of sustainable practices affects great downstream pride and loyalty. Accordingly, agencies must appear to illustrate the sourcing of materials, shipping footprint, and product life cycle through facts. Reporting through a couple of mediums, which include product labels, social media memories, and interactive virtual equipment, should help make purchaser satisfaction credible and actionable.

The other recommendation is adopting a sustained, sluggish answer implementation technique for sustainability. Particular high-cost, high-effect application possibilities, which include adopting electric-powered shipping fleets, can be out of the attain of most SMEs. However, low-cost, high-effect packages can take effect immediately. While those are not long-term

sustainable practices, they may be treasured as they could construct goodwill with customers, and more importantly, lay the basis for larger-scale and longer-term sustainable practices.

Collaboration is another barrier to painting around the fee and infrastructure barriers. Partnering with different sustainable brands, logistics vendors, and enterprise institutions should offer possibilities to proportion prices and create new infrastructures like shared distribution hubs or recycling centres. Partnerships also strengthen bargaining power and enhance focus in a crowded, sustainable market.

Finally, overcoming the attitude–behaviour hole is essential. Consumers may also price sustainability, and the vast undertaking is their unwillingness to pay more. Native Denims should put incentive programs in force to create sustainable behaviours; loyalty factors for recycling clothes or reductions for low-carbon shipping ought to encourage patron alternatives in the direction of sustainable options. Considering ways, they are incentivised can also inspire consumers' focus on sustainability to be considered in their buying behaviours.



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