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Evaluating the Impact of Reverse Logistics on Efficiency in the Clothing Rental Industry

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Abstract
Cleaning, quality control, inventory turnover, and redistribution are some of the particular challenges that garment rental companies have when dealing with returned clothing, in comparison to more traditional retail models. Productivity, longevity, and happy customers are all at risk because of this. Inefficient reverse logistics may lead to resource wastage, increased processing times, and operational expenses, all of which can impact profitability and the environment. This research examines the effects of reverse logistics on the effectiveness of the garment rental industry by identifying critical problems and offering possible options for improvement. Through an examination of current trends, environmental concerns, and technology advancements like blockchain, AI, and automation, the paper reveals ways in which businesses may improve logistics performance. Based on the findings, enhancing reverse logistics systems can support the concepts of the circular economy, shorten product lifecycles, reduce textile waste, and lower operational costs and turnaround times. Better service and more market competitiveness can be in the horizon as a result of well-planned logistics system enhancements that increase consumer delight. The findings indicate that rental companies will not achieve long-term profitability and efficiency without using sustainable logistical techniques and data-driven decision-making. The garment rental industry's future growth depends on fixing reverse logistics inefficiencies. Finding a happy medium between ecological consciousness and commercial feasibility can be aided by this.
Keywords: Reverse logistics, clothing rental industry, supply chain efficiency, circular economy, sustainability, inventory management, technological innovation.

Introduction
The apparel rental business relies heavily on reverse logistics to ensure the correct return, reconditioning, and redistribution of items in a sustainable and efficient manner. The growth of clothing rental services has changed the fashion industry by facilitating shared consumption, reducing textile waste, and minimising environmental impact. However, inventory mismanagement, increased operating expenses, delayed returns, and unhappy customers are all

potential outcomes of inadequate reverse logistics systems, which can ultimately impact a company's viability. Rental services offer a more hygienic alternative to buying single-item clothing since they allow customers to return items multiple times. Products go through a lot of wear and tear, cleaning, quality assurance, and repackaging, all of which eat up time, energy, and money. In order to remain competitive, rental businesses must improve their logistical planning in response to rising customer demand for eco-friendly solutions. Reverse logistics is generally profitable and customer-pleasing because it has a direct effect on inventory availability, turnaround time, and service quality. Through technology advancements, artificial intelligence (AI), automation, blockchain, and real-time tracking provide opportunities to simplify returns administration and enhance logistical operations. Notwithstanding these developments, many businesses still suffer from inefficiencies resulting from inadequate infrastructure, poor coordination, and too high processing costs. This study evaluates how reverse logistics influences efficiency in the garment rental industry by addressing critical challenges, practical solutions, and the requirement of sustainability in besting operations". By means of industry practices research and assessment of how logistics performance effects financial and environmental consequences, this paper aims to provide insights on best practices for raising the efficiency of reverse logistics. Not just for economic viability but also for concepts in the circular economy in the fashion industry, where long-term sustainability and competitive advantage rely mostly on waste reduction and resource optimisation.

The History of Reverse Logistics

The sorting, processing, and management of returned objects used to be largely dependent on human intervention and entailed manual operations in reverse logistics. "Businesses experienced increased expenses, longer processing times, and an increase in errors as a consequence of this.

Automation has revolutionised the way e-commerce enterprises handle returns, and this has had a profound impact on reverse logistics.

The Future of Reverse Logistics

The fast development of technology that focusses on returns has given ecommerce reverse logistics a very bright future.

Managing returns is getting easier, faster, and more lucrative with the integration of end-to-end software, automated systems, and increasingly advanced artificial intelligence.

Using these advancements, your online store can easily process a large number of returns, cut costs, and get the most out of each return.

An overwhelming majority of companies (74%) are boosting spending on supply chain innovations and technology, such as analytics, automation, and artificial intelligence (AI).

Stay ahead of the curve in reverse logistics by adopting new technologies as they emerge; this will give you a leg up in the years to come.

Automated Sortation

It could take a lot of time and effort to sort returns into inventory. Machine learning algorithm-powered automated sortation systems can greatly simplify this operation.

Robotic arms, scanners, and conveyor belts can read barcodes and send scanned items to the correct storage space in your warehouse automatically.

By 2025, more than 50,000 warehouses will have deployed an estimated 4 million commercial warehouse robots.

By implementing an automated system, you are able to:

- Cut down on manual sorting time
- Quickly get products back on shelves
- Increase processing volumes and scalability

You can save expenses and improve efficiency by automating sortation, which allows you to swiftly and easily manage a large volume of returns.

Retailers are increasingly turning to automated sortation systems to enhance warehouse productivity and optimise reverse logistics. This trend highlights the increasing significance of automation in this field.

AI-Powered Decision Making

Artificial intelligence enables you to make smart decisions, helping you recapture more value from returned products.

AI can analyze key attributes like:

- Item condition
- Time since purchase
- Demand and resale value
- Cost of repackaging

The best course of action for each return, be it resale, refurbishment, liquidation, or donation, may be instantaneously determined by machine learning models using this data.

Take advantage of AI in conjunction with domain knowledge to optimise recovery, cut down on waste, and boost profits.

Adopting AI is now crucial for maintaining a competitive edge, as it is becoming an inherent component of numerous systems and technologies. Over three-quarters of businesses intend to enhance AI integration in their supply chains by 2023, as indicated in a poll.

To keep up with the ever-changing reverse logistics industry, you should join the crowd of companies who are incorporating AI into their operations.

Returns Management Systems

To maximise the efficiency of their reverse logistics, more and more retailers are realising the importance of returns management systems (RMS). A unified system for all data and workflows pertaining to returns is created by these end-to-end systems.

You can streamline your business and make the process more convenient for clients using RMS solutions like ReturnGO, which offer robust self-service return portals.

Here are some benefits of using a returns management system:

- Automatically-generated return shipping labels
- Return analytics and data-driven insights
- Automated return policy enforcement
- Real-time tracking of return shipments

Real-time tracking and status updates are made possible by the connection of RMS platforms with WMS and other systems. All teams are kept informed with a uniform view of return data, which streamlines operations and reduces errors. On top of that, top RMS systems like ReturnGO give you access to comprehensive analytics that can help you improve your products and processes by revealing things like return patterns and troublesome products. The industry practice for e-commerce companies now is to automate their returns management processes. With RMS solutions, data, teams, and tasks are systemically coordinated, simplifying a difficult process.

The Future is Bright for Reverse Logistics

While reverse logistics has long been an issue for ecommerce businesses, emerging technologies are completely transforming the process.

Leveraging solutions that can optimize your reverse supply chain will be key to remaining competitive in the coming years.

As artificial intelligence, automated systems, and end-to-end software become more sophisticated and integrated, managing returns will become faster, more efficient, and more profitable than ever. Get ahead of the competition by leveraging reverse logistics technology to maximize profits, reduce overhead costs, and take your customer experience to the next level.

Improve Reverse Logistics Processes

The efficiency of your reverse logistics process directly impacts costs (and therefore return on investment plus profits), so optimizing this by improving processing speeds and decision-making will have a positive impact on your bottom line.

Putting your customer at the center of the process ensures that their journey is the focus and their experience will be a positive one.

1. **Automate**

Invest in enhancing your processes via the introduction of automation and robotics. These reduce or limit the potential impact of human biases within your workflows.

Setting the process to meet a standardized list of criteria ensures consistency. Keeping everything consistent also reduces wasted time and improves speed.

2. **Centralize returns**

This enables one set of reverse logistics process guidelines that all products are subjected to. You'll benefit from the uniformity and efficiency of reclaiming product value. Outsource where necessary if you're constrained by space etc to allow for a central returns point and process.

Reverse logistics partners may have the agility and resources (such as manpower) you need to innovate.

3. **Review transportation**

Regularly assess your logistics and any third-party transport providers to see where weak points could be improved. Look for areas where efficiencies could be made to save time and money.

4. **Use data and monitoring systems**

There are many different strands of data you can collect for your reverse logistics process to identify where efficiencies can be made. However, just because you can collect data on something, doesn't mean it'll be useful. Be wary of investing time and effort into data that won't provide any benefit. Only collect data that you can use.

If you've got data that's not informing any improvements, do you need to be collecting it? That in itself can be a way of stripping out inessential activities.

Look for trends in your data analysis that point to issues within the product development cycle or supply chain so those earlier on in the chain can be notified, preventing returns and reducing volumes.

5. **Collaborate and be agile**

Look for external resources and third-party suppliers that may have a better infrastructure than what you can provide yourself. You don't want to lose too much focus on your core business activities, and sometimes diversifying to satisfy business needs can detract.

Check what areas you need additional support in and when. It may be that you don't have a year-round demand for third-party support and therefore don't need to over-commit on an extra outgoing.

6. **Evaluate the terms of sale**

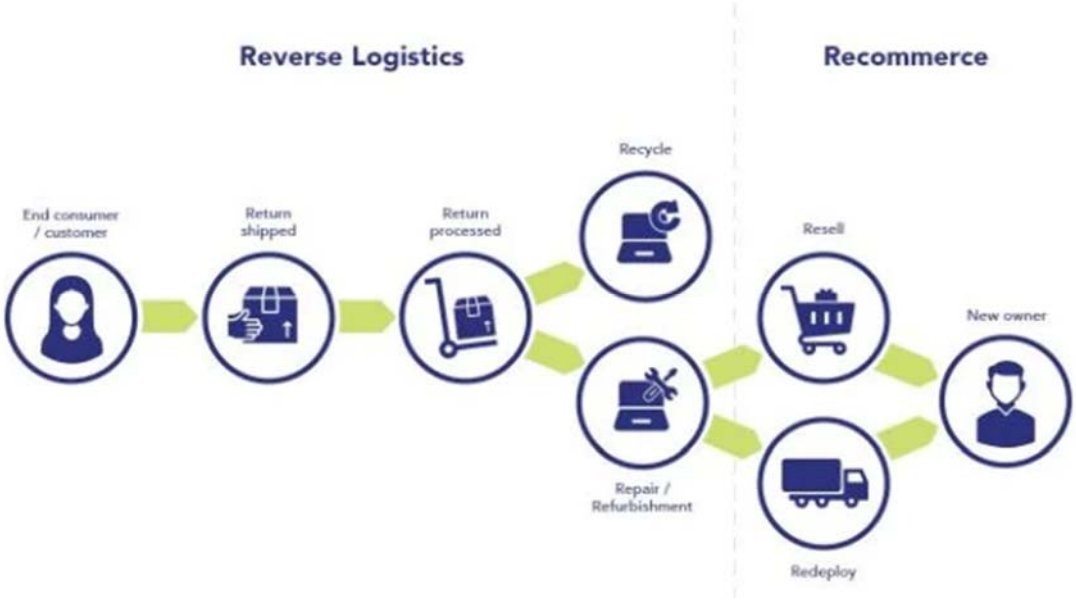
Regularly review your terms and conditions, and returns policy to make sure you're not exposed to any loopholes or that you're not being too lenient. Check what your competitors are offering. Avoid being vague so your customers know what to expect before they purchase and understand what their rights are.

Check your policies to see how you can better avoid the possibility of fraudulent returns.

7. **Improve customer service**

As a form of returns avoidance, your customer services should be geared towards educating and assisting customers with any performance issues or user-led problems. This kind of technical support helps ensure that customers are using the products in the right way.

The customer-facing team should feed reports to manufacturing highlighting any common issues in product development". Raising concerns about issues occurring near the start of the supply chain enables you to course-correct and reduce the impacts this has on the product itself.



Challenges in Reverse Logistics for Clothing Rentals

in clothing rental reverse logistics, "key challenges include: managing inconsistent return volumes, accurately assessing garment condition upon return, handling potential damage or wear and tear, coordinating cleaning and maintenance processes, optimizing transportation logistics for returned items, and ensuring proper inventory management to maintain stock availability for future rentals; all while balancing customer convenience with cost-effective operations.

Specific challenges:

- **Condition Assessment Difficulty:**
  Accurately determining the condition of returned clothing, especially for minor wear and tear, can be complex and requires trained staff to inspect for potential damage, stains, or missing components.
- **Cleaning and Maintenance Logistics:**
  Coordinating cleaning and maintenance processes for a diverse range of clothing items, ensuring proper handling of delicate fabrics, and managing turnaround times to keep inventory available for new rentals.
- **Variable Return Volumes:**
  Dealing with unpredictable return flows, which can fluctuate depending on rental periods, seasons, and customer usage patterns, making it difficult to plan resource allocation efficiently.
- **Lack of Standardization:**
  Inconsistencies in garment labeling, size variations, and return procedures can complicate the reverse logistics process.
- **Data Tracking and Visibility:**
  Need for robust tracking systems to monitor the movement of returned garments throughout the cleaning, inspection, and restocking process.

- **Sustainability Concerns:**
  Finding environmentally friendly cleaning and disposal methods for garments that reach the end of their rental lifecycle.

Reverse Logistics

The Reverse Logistics Association defines reverse logistics as the process of moving goods from their final destination to capture value or proper disposal. However, this definition is limited, as it focuses on planning, implementing, and controlling the efficient flow of raw materials, inventory, finished goods, and related information. Research in reverse logistics focuses on management of end-of-life product recovery and distribution, production planning, inventory management, and supply chain management issues. Most research on reverse logistics focuses on social and economic sustainability, rather than environmental sustainability. There is little research on the wider environmental impact of reverse logistics, particularly distribution elements and its relation to the structure of the reverse logistics chain.

Recent Developments in Clothing Retailing and Consumer Returns

The clothing retail sector has significantly changed over the past decade, with online shopping replacing catalogue shopping and making significant inroads into traditional shopping patterns. In 2018, 65% of people aged 16 and older bought an item of clothing online, making it the most popular category of online purchases. Online platforms are making strategic moves to capture and increase their market shares in the fashion industry, with Amazon surpassing Macy's in 2018 to become the largest clothing retailer in the US and JD.com and Alibaba controlling more than 80% of the Chinese clothing market. In Europe, Amazon and Zalando are pushing to become major fashion e-tailing platforms.

As a result, there has been an increase in the number of returns, with the percentage of clothing items returned varying considerably between categories of clothing and country of sales. Demographic differences have also been observed, with 44% of customers in the UK ordering with the intention of returning at least part of the order. A global consumer survey revealed a worldwide average of 27% of online customers buying with the intention of making returns.

Returning behavior in clothing is encouraged by the policy of many retailers to offer free returns and EU legislation which allows customers to return their purchases within 14 days of purchase for no reason whatsoever and receive a full refund. A substantial and increasing percentage of clothing items bought online are purchased cross-border, with 23% of e-shopping purchases in Europe in 2019, compared to 11% in 2011". Clothing is by far the most frequently purchased product category globally.

Review of Literature

(Fugazza & Maur, 2008) studied "non-tariff barriers in CGE models" and said that Trade policymakers are shifting focus to non-tariff barriers due to declining tariffs, but more work is needed due to complexity, data availability, and unique challenges for computational/applied general equilibrium modelling.

(Caunhye et al., 2012) studied "Optimization models in emergency logistics" and said that This study uses content analysis techniques to examine emergency logistics optimization models, focusing on pre-disaster activities and post-disaster operations. It identifies research gaps and suggests new subjects for further investigation.
(Tancrez et al., 2012) studied "A location-inventory model for large three-level supply chains" and said that Our model efficiently solves location-inventory problem in three-level supply networks by considering distribution hub locations, flow dispersion, and shipment amounts, utilizing numerical experiments and a case study.
(Todeschini et al., 2017) studied "Innovative and sustainable business models in the fashion industry" and said that This study explores the internal entrepreneurial dynamics of environmentally friendly business models in the fashion industry. It combines empirical research, literature review, interviews, and case studies to identify trends and factors affecting innovative practices. The research highlights benefits and drawbacks for businesses and academics.
(De Angelis et al., 2018) studied "Supply chain management and the circular economy" and said that This study explores the potential of circular economy concepts in supply chain management, highlighting the need for cooperation, leasing, and public/private procurement to scale up circular business models and address supply chain issues.
(Lopes De Sousa Jabbour et al., 2019) studied "Circular economy business models and operations management" and said that This article explores the adoption of circular economy business models and their impact on operations management decision-making processes, highlighting new technological requirements, modifications needed, and recommendations for designers and managers.
(Ertz & Patrick, 2020) studied "The future of sustainable healthcare: Extending product lifecycles" and said that This paper explores product lifetime extension opportunities in healthcare institutions' third-party contractors, focusing on nature and nurture strategies. It uses case studies to analyze and compare these models, providing insights for professional practice and policy making.
(Fagundes et al., 2020) studied Decision-making models and support systems for supply chain risk and said that This paper analyses decision-making models and support systems for supply chain risk management (SCRM) using literature mapping. "It identifies three groups of risk decision support models, six current research clusters, and seven future research clusters. Future research should prioritize SCRM's holistic vision, Big Data, Industry 4.0, and emerging social and environmental risks.

Data Analysis

Hypothesis

- Alternative Hypothesis (H1): The reverse logistics processes in the clothing rental model result in a lower environmental impact compared to traditional retail models.

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Environmental Impact on reverse logistics of clothing rental model	300	2.7400	1.38279	.07984
Environmental Impact on reverse logistics of traditional retail models	300	3.1100	1.35055	.07797

One-Sample Test						
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Environmental Impact on reverse logistics of clothing rental model	34.321	299	.000	2.74000	2.5829	2.8971
Environmental Impact on reverse logistics of traditional retail models	39.885	299	.000	3.11000	2.9566	3.2634

The analysis highlights a significant difference in the environmental impact between the reverse logistics of clothing rental models and traditional retail models. The mean environmental impact score for the reverse logistics in clothing rental models is **2.74**, while for traditional retail models, it is **3.11**, suggesting that reverse logistics in clothing rental systems results in a lower environmental impact. This difference in means indicates that the clothing rental model is more environmentally sustainable, likely due to reduced waste, optimized return processes, and efficient reuse cycles.

The one-sample t-test further confirms these findings. For the reverse logistics of the clothing rental model, the t-value is **34.321** with a p-value of **0.000**, indicating that the observed mean is significantly different from the hypothesized value. Similarly, for traditional retail models, the t-value is **39.885** with a p-value of **0.000**, also indicating statistical significance. Both results are highly reliable, as evidenced by the tight confidence intervals (for example, **2.5829 to 2.8971** for the clothing rental model), further supporting the robustness of the findings.

Given these results, the null hypothesis (H_0), which states that there is no significant difference in the environmental impact between the two models, is rejected. Instead, the alternative hypothesis (H_1) is supported, demonstrating that reverse logistics processes in clothing rental models result in a lower environmental impact compared to traditional retail models. These

findings underscore the importance of adopting clothing rental systems as a sustainable alternative to traditional retail practices.

Hypothesis

- Alternative Hypothesis (H1): Tailored reverse logistics strategies lead to notable improvements in operational efficiency within clothing rental companies.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.923[a]	.851	.851	.52909
a. Predictors: (Constant), tailored reverse logistics strategies				
b. Dependent Variable: improvements in operational efficiency				

Studies show that operational efficiency increase in clothing rental companies and the adoption of customised reverse logistics solutions definitely and significantly related. Customised reverse logistics solutions obviously assist to greatly boost operational efficiency as they are followed. The R-value of 0.923 shows quite substantial positive connection. Furthermore, the R-Square value of 0.851 shows that these tailored solutions explain 85.1% of the variance in operational efficiency, therefore underlining their indispensable relevance in operational development.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	478.125	1	478.125	1707.953	.000[b]
	Residual	83.422	298	.280		
	Total	561.547	299			
a. Dependent Variable: improvements in operational efficiency						
b. Predictors: (Constant), tailored reverse logistics strategies						

With an F-statistic of 1707.51 and a p-value of 0.000 the ANOVA results confirm the statistical importance of the model. This implies that operational effectiveness and tailored reverse logistics systems have a strong rather than a weak relationship. The high F-statistic suggests even more that the model fits the data well, therefore proving the correctness of the conclusions.

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.099	.077		-1.286	.199
	tailored reverse logistics strategies	.966	.023	.923	41.327	.000
a. Dependent Variable: improvements in operational efficiency						

The coefficients provide more details. With an unstandardised coefficient (B), operational efficiency increases by 0.966 units for every unit increase in the use of professional reverse logistics techniques. The consistency coefficient (Beta) of 0.923 highlights much further the strength of this relationship. Moreover, 41.327 with a p-value of 0.000 reveals that operational efficiency has statistically significant effect from tailored strategies. With a p-value of 0.199, the constant term does, however, clearly illustrate that any baseline without particular strategies does not significantly affect operational efficiency.

At last, the findings greatly run counter to the null hypothesis (H_0), which maintained that tailored reverse logistics solutions had no effect on operational efficiency. The results confirm the alternative hypothesis (H_1), therefore confirming that tailored reverse logistics solutions most definitely improve operational efficiency These findings underscore the significance of customised methods in reverse logistics for companies leasing clothing because they allow to maintain a competitive edge in the market and boost efficiency.

Hypothesis

- Alternative Hypothesis (H1): Consumer behaviors related to returns and care significantly impact the efficiency of reverse logistics in clothing rental.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.977[a]	.954	.954	.29425

a. Predictors: (Constant), efficiency of reverse logistics

b. Dependent Variable: Consumer behaviors

The study exposes a clear and statistically significant correlation between consumer behaviour linked with returns and care and the effectiveness of reverse logistics in the garment rental model. Reverse logistics system efficiency exhibits quite strong positive association with customer behaviour based on an R-value of 0.977. Moreover, the R-Square value of 0.542 emphasises the significance of consumer-related elements in defining logistical results as it reveals that the efficiency of reverse logistics explains 95.4% of the variance in consumer behaviour.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	535.744	1	535.744	6187.532	.000[b]
	Residual	25.802	298	.087		
	Total	561.547	299			

a. Dependent Variable: Consumer behaviors

b. Predictors: (Constant), efficiency of reverse logistics

Particularly assist to support the statistical relevance of the model the ANOVA findings with an F-statistic of 6187.532 and a p-value of 0.000. These findings suggest that consumer behaviour and reverse logistics efficiency exhibit a strong and significant link instead of developing from random. The very good F-statistic, which shows that the model fits the data quite well, emphasises even more the dependability of the model.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.161	.038		4.263	.000
	efficiency of reverse logistics	.968	.012	.977	78.661	.000

a. Dependent Variable: Consumer behaviors

The coefficients provide even another level of information, more consistent. With an unstandardised coefficient (B) of 0.968, consumer behaviour linked with returns and care appropriately rise with every unit improvement in the efficiency of reverse logistics. Even although the relationship is very statistically significant, the standardised coefficient (beta) of 0.977 guarantees the strength of this effect with a t-value of 78.656 and a p-value of 0.000. Furthermore, amazing is the constant term, with a t-value of 4.263 and a p-value of 0.000 proving even in the absence of other components, a baseline impact of consumer activities on reverse logistics efficiency.

We thereby reject the null hypothesis (H_0), which holds that reverse logistics efficiency is not much affected by customer behaviour connected to returns and care. Supported is the alternative theory (H_1), which confirms that customer conduct greatly and favourably affects the reverse logistics efficiency in garment rental. These results underline the need of teaching customers on appropriate return and care techniques to increase the operational efficacy of reverse logistics systems in the garment rental industry.

Discussion

The research explores the potential of reverse logistics in the clothing rental industry, highlighting its potential to reduce costs and enhance customer satisfaction. It suggests that AI, blockchain, and automation can improve reverse logistics procedures, enabling shorter processing times and higher returns". However, the study also highlights challenges such as high returns volume, expensive shipping charges, and difficulty gauging garment quality. To address these, businesses should implement improved inventory tracking, data-driven decision-making, and simplified return processing. Reverse logistics is also a part of the sustainability-focused circular economy, extending product life and reducing textile waste.

Conclusion

This study's findings emphasise the value of reverse logistics in assisting the apparel rental industry in streamlining their operations. Operational expenses, inventory turnover, customer happiness, and sustainability standards can all benefit from a more streamlined process for processing returned goods. Automating and enhancing reverse logistics processes with blockchain technology and artificial intelligence (AI) has made them faster and cheaper. Overcoming challenges like high shipping costs and unexpected return volumes requires careful planning and optimisation of processes. Using data-driven reverse logistics techniques, clothing rental businesses have a better chance of increasing profits while decreasing their environmental effect and becoming more sustainable.

Reference

bdulla, H., Ketzenberg, M., & Abbey, J. D. (2019). Taking stock of consumer returns: A review and classification of the literature. *Journal of Operations Management*, *65*(6), 560–605. https://doi.org/10.1002/joom.1047

Agrawal, S., Singh, R. K., & Murtaza, Q. (2015). A literature review and perspectives in reverse logistics. *Resources, Conservation and Recycling*, *97*, 76–92. https://doi.org/10.1016/j.resconrec.2015.02.009

Aksen, D., Aras, N., & Karaarslan, A. G. (2009). Design and analysis of government subsidized collection systems for incentive-dependent returns. *International Journal of Production Economics*, *119*(2), 308–327. https://doi.org/10.1016/j.ijpe.2009.02.012

Alcayaga, A., Wiener, M., & Hansen, E. G. (2019). Towards a framework of smart-circular systems: An integrative literature review. *Journal of Cleaner Production*, *221*, 622–634. https://doi.org/10.1016/j.jclepro.2019.02.085

Alonso-Muñoz, S., González-Sánchez, R., Siligardi, C., & García-Muiña, F. E. (2022). Analysis of the Textile Supply Chain from a Circularity Perspective: A Case Study. In M. H. Bilgin, H. Danis, E. Demir, & A. Zaremba (Eds.), *Eurasian Business and Economics Perspectives* (Vol. 21, pp. 213–234). Springer International Publishing. https://doi.org/10.1007/978-3-030-94036-2_12

Ambilkar, P., Dohale, V., Gunasekaran, A., & Bilolikar, V. (2022). Product returns management: A comprehensive review and future research agenda. *International Journal of Production Research*, *60*(12), 3920–3944. https://doi.org/10.1080/00207543.2021.1933645

Barros, M. V., Salvador, R., Do Prado, G. F., De Francisco, A. C., & Piekarski, C. M. (2021). Circular economy as a driver to sustainable businesses. *Cleaner Environmental Systems*, *2*, 100006. https://doi.org/10.1016/j.cesys.2020.100006

Bartolomeo, M., Dal Maso, D., De Jong, P., Eder, P., Groenewegen, P., Hopkinson, P., James, P., Nijhuis, L., Örninge, M., Scholl, G., Slob, A., & Zaring, O. (2003). Eco-efficient producer services—What are they, how do they benefit customers and the environment and how likely are they to develop and be extensively utilised? *Journal of Cleaner Production*, *11*(8), 829–837. https://doi.org/10.1016/S0959-6526(02)00157-9

Bayardo, R. J. (n.d.). *Counting Models Using Connected Components*.

BEng, S. B. (n.d.). *The Problems Caused by Multiple Models and Concepts While Attempting to Implement Innovative Technologies Focusing on RFID*.

Bhoir, H. (n.d.). *Cloud Computing for Supply Chain Management*. *1*(2).

Blomsma, F., & Tennant, M. (2020). Circular economy: Preserving materials or products? Introducing the Resource States framework. *Resources, Conservation and Recycling*, *156*, 104698. https://doi.org/10.1016/j.resconrec.2020.104698

Bocken, N. M. P., Schuit, C. S. C., & Kraaijenhagen, C. (2018). Experimenting with a circular business model: Lessons from eight cases. *Environmental Innovation and Societal Transitions*, *28*, 79–95. https://doi.org/10.1016/j.eist.2018.02.001

Bocken, N. M. P., & Short, S. W. (2021). Unsustainable business models – Recognising and resolving institutionalised social and environmental harm. *Journal of Cleaner Production*, *312*, 127828. https://doi.org/10.1016/j.jclepro.2021.127828

Bouma, J. A., Hegde, S. S., & Lasage, R. (2016). Assessing the returns to water harvesting: A meta-analysis. *Agricultural Water Management*, *163*, 100–109. https://doi.org/10.1016/j.agwat.2015.08.012

Bressanelli, G., Perona, M., & Saccani, N. (2017). Reshaping the Washing Machine Industry through Circular Economy and Product-Service System Business Models. *Procedia CIRP*, *64*, 43–48. https://doi.org/10.1016/j.procir.2017.03.065

Bulsara, H. P., Qureshi, M. N., & Patel, H. (2016). Green supply chain performance measurement: An exploratory study. *International Journal of Logistics Systems and Management*, *23*(4), 476. https://doi.org/10.1504/IJLSM.2016.075210