



Enhancing investor attractiveness in Sri Lanka's apparel sector through environmental and social sustainability goals: A gap analysis

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Abstract: *Purpose:* This study aims to explore how incorporating environmental and social sustainability goals can enhance investor attractiveness in Sri Lanka's apparel sector by identifying gaps between current practices and customer auditing expectations.

Methodology: The research employs a mixed-method approach, combining quantitative analysis of sustainability performance data from selected export-oriented apparel firms with qualitative insights from interviews with key stakeholders. The study focuses on leading companies, referred to as F1, F2, F3, F4, and F5, to maintain anonymity.

Results: The study reveals significant gaps between prevailing sustainability practices and customer auditing expectations, particularly in areas of energy efficiency, greenhouse gas emissions, and water management. Political instability and inconsistent policies were identified as significant barriers to long-term sustainability initiatives. The research also highlights the lack of standardized baseline data and technical expertise as key challenges.

Theoretical contribution: This study contributes to the literature on sustainable supply chain management in developing countries by providing a



comprehensive analysis of the challenges and opportunities in aligning sustainability practices with investor expectations in the apparel sector.

Practical implications: The findings offer strategic recommendations for apparel manufacturers, policymakers, and industry associations to bridge identified gaps, including developing industry-wide sustainability standards, enhancing technical capacity, and advocating for supportive regulatory frameworks. These strategies aim to improve the sector's attractiveness to foreign investors while promoting sustainable development.

Keywords: environmental sustainability, social sustainability, apparel sector, foreign direct investment, sustainability gap, export-oriented apparel firms, customer auditing expectations, environment- health and safety systems

Sustainable Development Goals (SDGs): SDG 12: Responsible Consumption and Production

1. Introduction

In today's global context, there is an increasing recognition of the importance of environmental and social sustainability in various industries. The apparel sector, known for its significant economic contributions and employment opportunities, faces the challenge of incorporating sustainable practices while ensuring profitability and growth. This study aims to address this challenge by exploring how the integration of environmental and socially sustainable goals can enhance investor attractiveness towards the apparel sector in Sri Lanka.

The apparel industry plays a crucial role in the global economy, serving as a significant source of exports and foreign exchange earnings for many countries. Sri Lanka, with its thriving apparel sector, is no exception. However, as the industry expands, it faces pressing environmental issues and social concerns. These include resource depletion, energy consumption, water pollution, worker rights, and labor conditions. Failure to address these challenges can undermine the long-term viability and competitiveness of the sector.

At the national level, Sri Lanka has recognized the importance of sustainable development and has made commitments to promote environmental and social responsibility. The government has implemented various policies and initiatives to support sustainable practices across industries, including the apparel sector. However, there is a need to enhance these efforts further and align them with international standards and investor expectations.

Within the local context, the apparel sector in Sri Lanka has shown remarkable growth and resilience over the years. It has attracted significant FDI and created employment opportunities for a large number of individuals. However, to sustain this growth and attract further investment, it is imperative to integrate environmental and social sustainability into the fabric of the industry.

To fully understand the dynamics of the apparel sector and its relationship with sustainability, it is essential to examine the history and overview of the organizations operating within the sector. This study will provide a brief background of selected apparel firms, including F1, 2, 3, and 4, highlighting their contributions to the industry and their current sustainability practices. By focusing on these organizations, the study aims to identify existing sustainable achievements, customer requirements, and potential areas for improvement.

Overall, this research endeavors to contribute to the knowledge and understanding of how the incorporation of environmental and socially sustainable goals can enhance investor attractiveness in the apparel sector. By exploring the global, national, and local contexts, this study will provide insights into the challenges and opportunities faced by the sector in achieving sustainable development. Through the identification of research objectives, scope, limitations, and the significance of the study, the subsequent chapters will delve deeper into the specific aspects and findings of the research, leading to practical recommendations for enhancing sustainability and investor attractiveness in the apparel sector in Sri Lanka.

1.1. Problem statement

The problem statement for this study is as follows: "The apparel sector in Sri Lanka faces environmental and social sustainability challenges, which may hinder foreign investors' confidence and impede the sector's growth potential. There is a need to identify the existing gaps and propose strategies to incorporate sustainable goals, thereby enhancing investor attractiveness and achieving sustainable development.

This problem statement emphasizes the importance of addressing sustainability issues within the apparel sector, considering their impact on investor perception and the overall growth prospects of the industry.

1.2. Research objectives

The general objective of this study is to explore the incorporation of environmental and socially sustainable goals to enhance investor attractiveness towards the apparel sector in Sri Lanka. The specific research objectives are as follows:

1. Identify the present stage of sustainable achievements and customer requirements in selected leading export-oriented apparel firms (F1, F2, F3, F4...etc.).
2. Analysis to understand the gap between the prevailing sustainable stage and customer auditing expectations.
3. Discussed target audience to design and formulate the strategic approach to fill the identified gap using existing resources.
4. Implement new strategies to bring the foreign customers attractiveness
5. Identify the drawbacks and submit further findings to relevant line agencies to catch attention.

1.3. Scope of the research

The research focuses on the apparel sector in Sri Lanka, with specific attention to leading export-oriented firms. The main variables of the study include environmental and social sustainability practices, investor attractiveness, and the apparel industry's economic and environmental impacts. The target respondents consist of environmental and sustainable teams of the selected sector, third-party customer auditors (SGS, E & Y, KPMG, SLSI), and project officers of the Investment Appraisal Department of the BOI.

1.4. Limitations of the research

While this research aims to provide valuable insights and recommendations, it is important to acknowledge certain limitations. These limitations may impact the generalizability and comprehensiveness of the findings.

Firstly, the scope of this study is explicitly focused on the apparel sector in Sri Lanka. While this sector is of great significance to the country's economy, it is important to recognize that the findings may not be directly applicable to other industries or regions. Each sector and country may have unique contextual factors and challenges that affect the integration of sustainable environmental and social goals.

Secondly, the research heavily relies on available data and information from various sources, such as company reports, statistics, and interviews. These sources may have limitations in terms of accuracy, completeness, or reliability. The availability of data may vary among organizations, and there may be discrepancies in the reporting practices and transparency levels of different companies. Consequently, the analysis and conclusions drawn from the data may be influenced by these limitations.

The constraints of time and resources may impact the depth of analysis and the number of organizations and stakeholders included in the study. Conducting a comprehensive study encompassing a large sample size of companies and stakeholders would require significant resources and a longer timeframe. Given the practical limitations, this research may focus on a select number of leading apparel firms and key stakeholders, potentially limiting the breadth of perspectives and insights obtained.

Despite these limitations, this research strives to provide valuable insights and practical recommendations within the scope and resources available. It is important to consider these limitations when interpreting and applying the findings of the study, and further research and analysis may be needed to validate and expand upon the results obtained.

1.5. Significance of the study

This study holds significant importance on multiple levels. Firstly, it contributes to the existing body of knowledge by examining the incorporation of environmental and socially sustainable goals in the apparel sector. While sustainability has gained increasing attention in various industries, there is still a need for in-depth research and practical strategies specific to the apparel sector. By investigating the challenges, opportunities, and best practices in sustainability within this context, the study will add valuable insights to the field and serve as a reference for future research and initiatives.

Secondly, the findings and proposed strategies from this study have practical implications for the environmental and sustainable teams of the selected sector, third-party customer auditors, and project officers of the Investment Appraisal Department. These stakeholders play crucial roles in ensuring the implementation and monitoring of sustainable practices within the apparel sector. By providing a comprehensive analysis of the current sustainable achievements and customer requirements, as well as strategies to bridge the identified gaps, this study will serve as a practical guide for these stakeholders to enhance sustainability efforts and enhance investor attractiveness.

The significance of this study extends to the Sri Lankan economy as a whole. The apparel sector is a key driver of the country's economic growth, employment, and export revenues. Promoting sustainability within the sector not only contributes to global efforts towards sustainable development but also ensures the long-term viability and competitiveness of the industry. This, in turn, has a positive impact on the overall economic stability and growth of Sri Lanka.

Moreover, this study has implications for various stakeholders, including apparel companies, investors, policymakers, and consumers. By incorporating environmentally and socially sustainable goals, apparel companies can improve their brand image, access new markets, attract socially responsible investors, and enhance customer loyalty. Investors, on the other hand, can make informed decisions based on the sustainability performance of companies, thereby contributing to a more sustainable investment landscape. Policymakers can utilize the findings and recommendations of this study to develop and enforce policies that support sustainable practices in the apparel sector. Lastly, consumers, who are increasingly concerned about the environmental and social impact of their purchasing decisions, can make more informed choices and support companies that align with their values.

This study holds significant value in terms of advancing knowledge, providing practical guidance, and contributing to the sustainable development of the apparel sector in Sri Lanka. By addressing the gap between current sustainability practices and investor expectations, this research aims to adopt a more sustainable and attractive apparel industry that benefits various stakeholders and the broader economy.

2. Research methodology

This chapter provides a comprehensive outline of the research approach, including the research questions, conceptual framework, hypotheses, operationalization of variables, and research design. The research questions serve as the foundation for the investigation, while the conceptual framework establishes the theoretical basis for the study. Hypotheses are formulated to test specific relationships between variables. The operationalization of variables involves defining and measuring key concepts clearly and consistently. The research design outlines the overall plan, including the sampling technique, data collection methods, and data analysis techniques. Ethical considerations and limitations are also addressed in this chapter. By presenting a well-structured and rigorous methodology, researchers can ensure the validity and reliability of their findings.

2.1. Research questions

The research questions for the study are as follows:

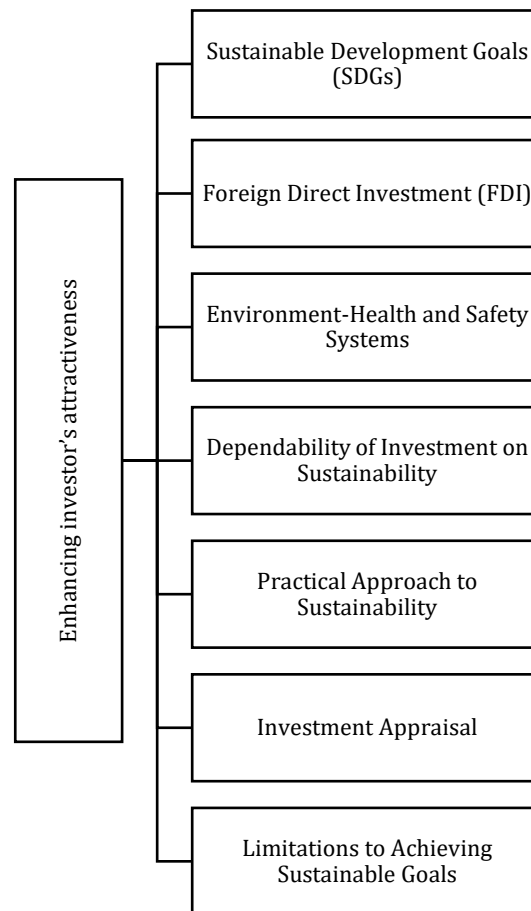
1. What is the current level of sustainable achievements and customer requirements in leading export-oriented apparel firms such as F1, 2, 3, 4, and others?
2. How can the gap between the prevailing level of sustainability and customer auditing expectations in the apparel sector be understood and analyzed?
3. Who are the target audiences that need to be engaged in order to design and formulate strategic approaches to bridge the identified gap, utilizing the existing resources?
4. How can new strategies be effectively implemented to enhance the attractiveness of the apparel sector to foreign customers?

5. What are the drawbacks and additional findings that need to be identified and communicated to the relevant line agencies to gain their attention and support?

These research questions aim to assess the current state of sustainable achievements and customer requirements in the leading apparel firms. The study also seeks to analyze the gap between the existing level of sustainability and customer expectations in order to identify areas for improvement. By discussing with the target audience, the research aims to develop strategic approaches that utilize available resources to bridge the identified gap. Implementing new strategies will be explored to enhance the sector's attractiveness to foreign customers. Additionally, the study intends to identify drawbacks and provide further findings that can be shared with relevant line agencies to garner their attention and support.

2.2. Conceptual framework

Figure 1: Components influencing investor attractiveness in sustainable investments



By considering these elements within the conceptual framework, the study aims to provide insights into how the incorporation of environmentally and socially sustainable goals can enhance investor attractiveness towards the apparel sector in Sri Lanka, thereby promoting sustainable development and growth in the industry.

2.3. Hypothesis

H1: There is a gap between the prevailing sustainable stage and customer auditing expectations in the apparel sector.

H2: Target audience discussions contribute to the design and formulation of a strategic approach to fill the identified gap using existing resources.

H3: The implementation of new strategies significantly enhances foreign customer attractiveness in the apparel sector.

H4: Drawbacks identified in the study caught the attention of relevant line agencies.

2.4. Research design

2.4.1. Research philosophy

The research will adopt a pragmatist research philosophy. Pragmatism is a philosophical approach that emphasizes practicality and the practical consequences of ideas. It seeks to understand and address real-world problems by combining theoretical knowledge with practical considerations. In the context of this study on incorporating environmental and socially sustainable goals to enhance investor's attractiveness towards the apparel sector in Sri Lanka, a pragmatist research philosophy is suitable.

By adopting a pragmatist research philosophy, the study will acknowledge the importance of both theoretical insights and practical implications. It will aim to bridge the gap between theory and practice by providing actionable recommendations that can be implemented within the existing resources and availabilities in the apparel sector. The research will focus on understanding the current stage of sustainable achievements, analyzing the gap between the prevailing sustainable stage and customer auditing expectations, designing strategic approaches, implementing new strategies, and identifying any drawbacks that need attention.

The pragmatist research philosophy will enable the researcher to consider the practical implications and feasibility of the research findings. It will encourage a flexible approach that takes into account the dynamic nature of the apparel sector and the need for adaptable strategies. By combining theoretical insights with practical considerations, the study will provide valuable insights and recommendations that can be effectively utilized by stakeholders, industry practitioners, and policymakers to enhance the investor's attractiveness towards the apparel sector in Sri Lanka.

2.4.2. Research approach

Given the time limitations in conducting the research study on incorporating environment and socially sustainable goals to enhance investor's attractiveness towards the apparel sector in Sri Lanka, a deductive research approach is considered suitable. This approach allows for the utilization of existing theories and knowledge to test their relevance and applicability in the current context. By adopting a deductive approach, the study will systematically analyze the relationship between the dependent and independent variables identified in the research questions.

To achieve this, a primary survey will be conducted to gather relevant data. The primary survey will involve the distribution of a questionnaire to selected leading export-oriented apparel firms, including F 1, 2, 3, and 4, among others. This survey will provide insights into the present stage of sustainable achievements and customer requirements in these firms, helping to address the first research question.

Additionally, the survey data will be analyzed to understand the gap between the prevailing sustainable stage and customer auditing expectations, addressing the second research question. Discussions with the target audience, including the environmental and sustainable teams of the selected sector and third-party customer auditors, will help design and formulate a strategic approach to bridge the identified gap using existing resources, addressing the third research question.

To implement the new strategies aimed at attracting foreign customers, the findings from the survey and discussions will guide the development and implementation of appropriate measures. Finally, any drawbacks identified during the research process will be documented and submitted to relevant line agencies to draw their attention, aligning with the fifth research question.

By following a deductive research approach and conducting a primary survey with a purposive sampling technique, using face-to-face interviews, web and phone interviews, self-administered questionnaires, and collecting statistics data, this research aims to provide valuable insights and practical recommendations for enhancing investor attractiveness in the apparel sector while achieving environmental and social sustainable goals within the existing resources and availabilities.

The quantitative component of the research will involve the collection of numerical data through structured surveys or questionnaires. The surveys will be administered to selected leading export-oriented apparel firms, including those selected 4 factories and others. The surveys will focus on identifying the present stage of sustainable achievements and customer requirements within these firms. The data collected will be analyzed using statistical techniques to determine the current level of sustainable achievements and to identify any gaps between the prevailing stage and customer auditing expectations.

The qualitative component of the research will involve conducting interviews and discussions with key stakeholders, such as the environmental and sustainable teams of the selected apparel

firms, third-party customer auditors, and project officers of the Investment Appraisal Department of the BOI. These interviews and discussions will provide valuable insights into the perspectives, experiences, and challenges related to incorporating environment and socially sustainable goals in the apparel sector. The qualitative data collected will be analyzed thematically to identify patterns, trends, and key themes.

Additionally, relevant data will be gathered from secondary sources, such as reports and statements from the BOI website and biannual statements. This data will provide supplementary information and support the analysis of the research findings.

The research strategy will also involve the formulation and implementation of new strategies to enhance the attractiveness of the apparel sector to foreign investors. These strategies will be designed based on the identified gaps between the present sustainable stage and customer expectations, utilizing the existing resources and availabilities. The effectiveness of these strategies will be assessed through the analysis of data collected from surveys, interviews, and other sources

2.4.3. Time horizon

The research was conducted over 3 months to address the research objectives and gather comprehensive data effectively. This timeframe allows for sufficient data collection, analysis, and reporting while ensuring the research remains focused and timely.

The 3-month time horizon is divided into different phases to ensure a systematic and efficient research process. The initial phase involved a literature review and conceptual framework development to establish a solid foundation for the study. This phase provided a clear understanding of the research topic and guided the subsequent stages.

2.4.4. Techniques and procedure

Objective 1: Identify the present stage of sustainable achievements and customer requirements in selected leading export-oriented apparel firms (F 1, 2, 3, 4, etc.)

To achieve this objective, the following techniques and procedures were followed:

1. Conducted face-to-face interviews with key stakeholders in the selected apparel firms to gather information on their current sustainable achievements.
2. Administered self-administered questionnaires to employees and managers to assess their knowledge and understanding of customer requirements related to sustainability.
3. Reviewed company documents, such as sustainability reports and policies, to gain insights into the firms' current sustainable practices.
4. Analyzed customer feedback and surveys to identify specific customer requirements and expectations regarding sustainability in the apparel sector.

Objective 2: Analyze the gap between the prevailing sustainable stage and customer auditing expectations.

To accomplish this objective, the following techniques and procedures were employed:

1. Conducted a comparative analysis of the sustainable achievements of the selected apparel firms with the customer auditing expectations.
2. Utilized industry standards and guidelines, such as the Higg Index and other auditing frameworks, to benchmark the firms' sustainable performance.
3. Examined customer audit reports and evaluations to identify areas where the firms fall short of meeting expectations.
4. Conducted interviews and discussions with industry experts and stakeholders to gain further insights into the expectations of customers regarding sustainability in the apparel sector.

Objective 3: Discuss the target audience to design and formulate a strategic approach to fill the identified gap using existing resources.

To address this objective, the following techniques and procedures were implemented:

1. Engaged in focus group discussions with the target audience, including representatives from apparel firms, industry associations, and relevant government agencies.
2. Conducted brainstorming sessions and workshops to generate ideas and suggestions for closing the identified gap.
3. Conducted a comprehensive analysis of the existing resources available within the apparel sector to identify potential strategies for improving sustainable practices.

4. Collaborated with industry experts and consultants to develop a strategic plan that outlines actionable steps and recommendations for the target audience to bridge the gap.

Objective 4: Implement new strategies to bring foreign customer attractiveness.

To achieve this objective, the following techniques and procedures were executed:

1. Collaborated with the selected apparel firms to implement the recommended strategies identified in Objective 3.
2. Monitored and evaluated the implementation process to ensure the effective execution of the new strategies.
3. Conducted follow-up interviews and surveys with foreign customers to assess their perception and attractiveness towards the implemented strategies.
4. Continued engagement with industry experts and stakeholders to fine-tune the strategies and make necessary adjustments based on feedback and emerging trends.

Objective 5: Identify drawbacks and submit further findings to relevant line agencies to gain attention.

To address this objective, the following techniques and procedures were followed:

1. Conducted an in-depth analysis of the challenges and limitations faced during the implementation of the strategies.
2. Documented and analyzed the drawbacks and shortcomings identified during the research process.
3. Prepared a comprehensive report highlighting the findings, including the identified drawbacks and limitations.
4. Shared the research findings and recommendations with relevant line agencies, such as government bodies and industry associations, to raise awareness and promote necessary actions for addressing the identified drawbacks.

By employing these techniques and procedures, the research study successfully addressed the objectives and provided valuable insights into incorporating environmental and socially sustainable goals to enhance investor's attractiveness in the apparel sector in Sri Lanka.

2.5. Data analysis

Apparel firms in Sri Lanka have made significant strides in achieving sustainability and promoting environmentally friendly practices. These firms recognize the importance of integrating sustainable measures into their operations to meet the growing global demand for ethical and eco-friendly products. One notable achievement is the establishment of green factories, which serve as benchmarks for sustainability in the industry. These factories are designed with eco-friendly architecture, modern layouts, and efficient production processes to minimize energy consumption and reduce carbon and water footprints. Sri Lanka takes pride in being home to the world's first custom-built green apparel factory and Asia's first carbon-neutral certified factory, highlighting the industry's commitment to environmental sustainability.

In addition to green factories, apparel firms in Sri Lanka focus on complying with international environmental standards and requirements. Many manufacturers have obtained certifications such as LEED Platinum and Gold, ensuring adherence to recycling, waste management, and effluent treatment practices. By implementing these measures, Sri Lankan apparel firms have significantly reduced energy consumption, water usage, and waste generation, contributing to a more sustainable industry.

Sustainable supply chain practices are also a priority for apparel firms in Sri Lanka. These firms emphasize responsible sourcing of raw materials, with a focus on sustainable fibers and materials that have minimal environmental impact. Furthermore, they promote fair labor practices, ensuring safe working conditions, fair wages, and no exploitation of workers. By embracing socially responsible approaches, Lankan apparel firms contribute to the overall sustainability of the industry.

Investment in research and development (R&D) activities is another area where apparel firms in Sri Lanka excel. R&D initiatives focus on developing innovative and sustainable textile technologies, eco-friendly dyeing processes, and efficient manufacturing techniques. This commitment to continuous improvement and innovation allows these firms to enhance their sustainable practices and offer eco-friendly products that meet evolving customer demands.

Collaboration and partnerships are integral to the sustainable achievements of apparel firms in Sri Lanka. They actively engage with industry associations, government bodies, and international organizations to promote sustainable practices. By participating in knowledge-sharing initiatives, capacity-building programs, and sustainability projects, Sri Lankan apparel firms foster a collective effort to achieve sustainable goals and address industry-wide challenges.

Moreover, to assess and ensure their sustainability performance, many apparel firms in Sri Lanka adopt the Higg Index, a comprehensive suite of tools specifically developed for the apparel industry. The Higg Index provides standardized criteria and measurement methodologies to evaluate social and environmental sustainability across the value chain. It includes tools such as the Higg Facility Environmental Module (FEM), Higg Facility Social & Labor Module (FSLM), Higg Brand & Retail Module (BRM), Higg Materials Sustainability Index (MSI), and Higg Product Module (PM). By utilizing the Higg Index, companies gain access to verified data that allows them to identify sustainability hotspots, track performance, and drive continuous improvement.

One of the auditing processes that can be utilized to assess the adherence of apparel firms in Sri Lanka to sustainability standards is the Higg Index. It covers various aspects such as environmental policies, preventive maintenance plans, waste reduction training, emergency response plans, hazardous waste handling, chemical management, and water and energy consumption reduction. Each criterion is carefully evaluated, and scores are assigned based on compliance and performance. This auditing process provides valuable insights into the sustainable achievements of apparel firms, allowing for a comprehensive understanding of their current stage in terms of sustainability.

Based on the audit rating provided for F3, with a score of 76%, it indicates that the factory has demonstrated a satisfactory level of compliance and performance in areas such as factory documentation, HR, health and safety, environment, onsite service providers, and security. This rating serves as an important benchmark to gauge the factory's commitment to sustainability and its attractiveness to customers who prioritize environmentally and socially responsible sourcing.

By incorporating the Higg Index scores and audit ratings into research and analysis, it becomes possible to gain insights into how apparel companies' sustainability practices and performance influence their attractiveness to customers, particularly in relation to order placements. This information can support decision-making processes for researchers, consumer goods brands, retailers, and other stakeholders in the industry, enabling them to make informed choices and develop sustainable strategies that align with their goals and values.

Table 1: Compliance assessment tool

F3			
Compliance Assessment Tool			
SBU:	F3		
Area	Score	Weight	WA
Factory Documentation	92%	10%	9%
HR (Labor + Industrial & Employee Relations)	82%	15%	12%
Health & Safety	70%	50%	35%
Environment	72%	10%	7%
Onsite Service Providers	78%	10%	8%
Security (CTPAT)	94%	5%	5%
Score			76%
Factory Rating			76%

Table 2: Grading index

Grading Index		
Overall Marks	Rating	Grade
Above 90%	Outstanding	A
80% – 89%	Best	B
70% – 79%	Good	C
50% – 69%	Poor	D
49% & below	Bad	N

According to the above information, F3's Higg rating of 76% reflects the factory's ongoing commitment to sustainability and compliance, which aligns with the research objectives of assessing resource efficiency and increasing investor attractiveness. This rating provides valuable insights into the factory's performance across various categories, indicating areas of strength and opportunities for improvement.

One of F3's notable strengths lies in its exceptional performance in factory documentation, receiving a score of 92%. This high score reflects the factory's dedication to maintaining well-documented processes and procedures. Such comprehensive documentation ensures efficient resource utilization, reduces waste, and promotes transparency. By having clear guidelines in place, F3 can effectively track and manage its resource consumption, contributing to resource efficiency and attracting investors who prioritize responsible and efficient practices.

The labor and employee relations category, with a score of 82%, indicates that F3 has established positive relationships with its workforce. This score suggests that the factory values its employees and maintains good labor practices, promoting employee engagement, satisfaction, and productivity. Intense labor and employee relations are crucial for efficient resource management, as satisfied and motivated employees are more likely to contribute to the optimization of resources. Investors interested in long-term operational stability and effective resource utilization will find F3's focus on employee well-being appealing.

However, to enhance resource efficiency further, F3 should concentrate on improving its health and safety practices, where it scored 70%. Robust health and safety protocols are essential for minimizing accidents, reducing downtime, and optimizing resource allocation. By implementing comprehensive safety measures and conducting regular training programs it can create a safe working environment that prioritizes employee well-being while enhancing operational efficiency. Investors highly value factories that prioritize health and safety, as they demonstrate a commitment to responsible operations and efficient resource utilization.

Environmental management is another crucial area where F3 has the opportunity to enhance its resource efficiency practices. A score of 72% in this category demonstrates a commitment to resource conservation and waste management. However, to further improve its environmental performance, F3 can adopt sustainable measures such as implementing energy-efficient technologies, optimizing water usage, and adopting responsible waste management strategies. By reducing its ecological footprint, it can enhance resource efficiency, reduce costs, and position itself as an environmentally responsible factory. This will attract investors who prioritize sustainable manufacturing practices and value resource-efficient operations.

Additionally, F3's practical management of onsite service providers, scoring 78%, indicates its commitment to maintaining high standards throughout the supply chain. By carefully selecting and monitoring service providers who align with sustainable and efficient practices, it can extend its commitment to resource efficiency beyond its own operations. This ensures that the entire supply chain follows responsible sourcing and supply chain management practices, ultimately enhancing resource efficiency and attracting investors interested in sustainable and responsible manufacturing.

Furthermore, its outstanding score of 94% in security practices based on CTPAT requirements positions the factory as a secure and reliable partner. While security practices have a more minor impact on the overall rating with a weight of 5%, they indirectly contribute to resource efficiency by safeguarding operations and mitigating risks. By prioritizing security, F3 minimizes disruptions that could lead to resource wastage or operational inefficiencies. Investors seeking stable and reliable partnerships will find strong security practices appealing.

F3's Higg rating of 76% reflects its commendable efforts in sustainability and compliance. To further enhance resource efficiency and attract more investors, F3 should focus on improving health and safety practices, enhancing environmental management, and leveraging its strengths in factory documentation and supply chain management. By implementing robust safety protocols, adopting sustainable measures, and prioritizing responsible operations, it can optimize resource utilization, reduce costs, and position itself as an appealing investment opportunity.

Table 3: The carbon footprint approved facilities increased in the year 2022 compared to the year 2021

2021						2022						Increased rate Carbon FP %
Energy source	Data	Unit	Emission Factor	Source	tCO2e	Energy source	Data	Unit	Emission Factor	Source	tCO2e	
Scope 01												
Diesel	2665.03	Liter	2.70553	DEFRA, 2021	7.210319	Diesel	110141.9	Liter	2.70	DEFRA, 2022	297.2509	
Kerosene	68725.8	Liter	2.54014	DEFRA, 2021	174.5732	Kerosene	N/A	-	-	-	-	
LPG	2137.5	kg	2.93929	DEFRA, 2021	6.282732	LPG	N/A	-	-	-	-	
Scope 02												
Electricity	638820	kWh	0.5294	SEA, 2020	338.1913	Electricity	633215	kWh	0.5294	SEA, 2020	335.224	
Total					526.2575	Total					632.4749	20%

Further, with the Carbon Foot Print value of the same company, the significant increase in F3's carbon footprint in 2022 presents a critical sustainability challenge that needs to be addressed to align with global environmental goals and attract environmentally conscious investors. The rise in carbon emissions is concerning not only for the company but also for the global effort to combat climate change and its far-reaching impacts.

To tackle this issue, it can adopt various strategies in line with sustainable goals and outcomes to demonstrate its commitment to reducing greenhouse gas emissions. By implementing energy

efficiency measures, such as upgrading machinery and optimizing production processes, F3 can effectively reduce electricity consumption and associated emissions. This not only helps the company in mitigating its carbon footprint but also aligns with Sustainable Development Goal 7: Affordable and Clean Energy, which emphasizes the promotion of energy efficiency and sustainable practices.

Moreover, the adoption of renewable energy sources is crucial for F3 to transition away from fossil fuels and reduce its dependence on carbon-intensive energy sources. By installing solar panels or sourcing renewable energy from external providers, the company can significantly lower its carbon emissions and contribute to Sustainable Development Goal 13: Climate Action. This demonstrates its commitment to combating climate change and creating a sustainable future.

In addition to direct mitigation efforts, it can engage in carbon offsetting initiatives. By investing in projects that reduce or remove greenhouse gas emissions, such as reforestation or renewable energy projects, the company can offset its remaining carbon emissions. This aligns with Sustainable Development Goal 15: Life on Land, which focuses on protecting and restoring ecosystems to combat climate change.

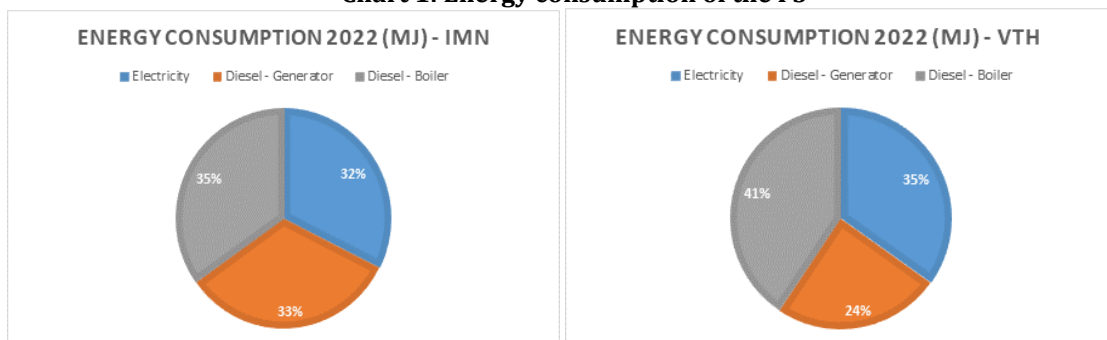
Collaboration and partnerships play a vital role in accelerating its sustainability journey. By joining forces with sustainability-focused organizations, industry associations, and carbon reduction experts, the company can access valuable knowledge, best practices, and resources. Collaborative efforts contribute to Sustainable Development Goal 17: Partnerships for the Goals, which encourages cooperation to achieve sustainable development objectives.

To attract investors, F3 must transparently report and disclose its carbon footprint, reduction targets, and progress. Providing clear and comprehensive information about the company's sustainability initiatives not only enhances transparency but also demonstrates accountability and a commitment to environmental stewardship. This transparency aligns with investor expectations and contributes to Sustainable Development Goal 12: Responsible Consumption and Production.

On a global scale, its efforts to reduce its carbon footprint contribute to the broader goal of mitigating climate change. By adopting sustainable practices, the company helps reduce greenhouse gas emissions, promote energy efficiency, and contribute to the global transition to a low-carbon economy. This not only aligns with international sustainability agendas but also enhances F3's reputation as an environmentally responsible business and attracts investors who prioritize sustainable and responsible investments.

In conclusion, it can address the significant increase in its carbon footprint by implementing energy efficiency measures, adopting renewable energy sources, engaging in carbon offsetting initiatives, fostering collaborations, and ensuring transparent reporting. These actions align with global sustainability goals, demonstrate the company's commitment to reducing greenhouse gas emissions, and make F3 more attractive to investors seeking environmentally responsible business opportunities. By actively addressing its carbon footprint, it can contribute to global efforts to combat climate change and foster a more sustainable future.

Chart 1: Energy consumption of the F3



The provided data on water consumption and wastewater treatment in F4's Sample Factory not only aligns with research objectives of assessing water efficiency and promoting sustainable water management practices but also has implications for enhancing investors' attractiveness. By analyzing the factory's performance in water conservation and treatment, I can identify opportunities for improving resource efficiency and environmental sustainability, which are factors that can significantly impact investors' perceptions and decisions.

Investors today are increasingly interested in businesses that demonstrate a commitment to sustainable practices and responsible resource management. Efficient water usage and effective wastewater treatment are key indicators of a factory's environmental stewardship and operational efficiency. By showcasing strong water management practices, F4 can position itself as an attractive investment opportunity for sustainability-conscious investors.

The data on water consumption per garment provides a valuable metric to assess the factory's operational efficiency and resource utilization. By optimizing water consumption and reducing the water footprint per garment, the factory can demonstrate its ability to produce goods with minimal environmental impact. This efficiency not only reduces costs but also signals responsible production practices, making the factory more attractive to investors seeking sustainable and cost-effective manufacturing operations.

Additionally, the data on wastewater treatment, including recycling for toilets, gardening, and production processes, highlights the factory's commitment to minimizing water waste and maintaining ecological balance. Adequate wastewater treatment not only protects the environment but also ensures compliance with regulations and mitigates reputational risks. These factors contribute to the factory's overall attractiveness to investors who prioritize sustainable and socially responsible investments.

By implementing strategies to improve water efficiency and expand sustainable water management practices, F4 can enhance its environmental performance, reduce operational costs, and increase its competitiveness. These improvements can attract investors who value companies that integrate environmental considerations into their core operations and align with global sustainability goals.

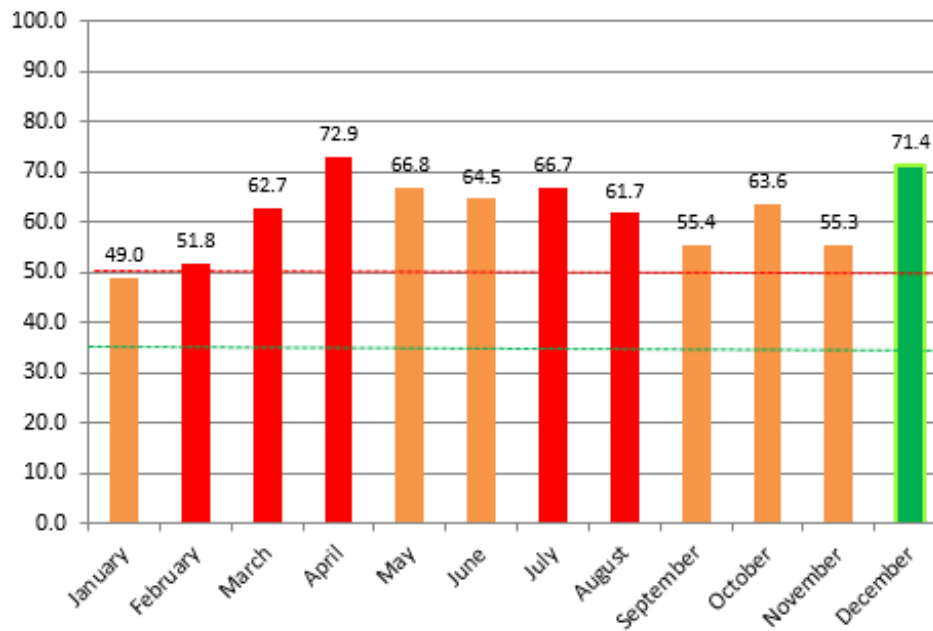
The adoption of innovative technologies and practices for water conservation and wastewater treatment can lead to long-term cost savings and operational resilience. Investors are often interested in companies that demonstrate forward-thinking and proactive approaches to managing resources. By investing in water-efficient technologies, such as water recycling systems, the factory can enhance its operational efficiency, minimize risks associated with water scarcity, and attract investors seeking sustainable and future-proof investment opportunities.

In conclusion, the data on water consumption and wastewater treatment in F4 not only supports my research objectives of assessing water efficiency and promoting sustainable water management practices but also has implications for enhancing investors' attractiveness. By showcasing strong water management practices, optimizing water consumption per garment, and adopting innovative technologies, the factory can position itself as an attractive investment opportunity to sustainability-conscious investors. These improvements not only contribute to environmental sustainability but also drive operational efficiency and long-term cost savings, further enhancing the factory's appeal to potential investors.

Table 4: Sustainable water consumption by F4

Sample Factory	B) Water Consumption				C) Treatment of Waste Water				D) Industrial Water Efficiency			
	(f) Potable Water (Domestic Use) (m ³)	(g) Water for Evaporative Cooling and other Air Conditioning (m ³)	(h) Industrial Use (Washing/Printing Facilities, Steam Boilers)	Total Fresh Water Use (f+g+h) (m ³)	General Purpose (m ³)			Industrial Purpose (m ³)		Total Treated (i+j) (m ³)	Number of Products Produced (Pcs)	Water Consumption per Garment (L/Pcs)
Month					Total Treated (i)	Recycled for Toilets	Recycled for Gardening	Total Treated (j)	Recycled for Process			
January	1945	35	34880	36860	34880	5.5	6	0	861	34880	712409	49.0
February	1954	35	33058	35047	33058	5.5	8	0	902	33058	638327	51.8
March	1934	35	36111	38080	36111	5.5	10	0	366	36111	575829	62.7
April	1567	35	31488	33090	31488	5.5	8	0	543	31488	431865	72.9
May	1743	35	37952	39730	39334	5.5	2	0	194	39334	568310	66.8
June	1745	35	41054	42834	41054	5.5	5	0	156	41054	636030	64.5
July	1734	35	41089	42858	41837	5.5	10	0	81	41837	616137	66.7
August	1713	35	39994	41742	40864	5.5	2	0	281	40864	647878	61.7
September	1655	35	29077	30767	31865	5.5	0	0	115	31865	524952	55.4
October	1923	35	37235	39193	37235	5.5	0	0	96	37235	585213	63.6
November	1612	35	28921	30568	28921	5.5	0	0	77	28921	522851	55.3
December	1505	35	26418	27958	26418	5.5	0	0	275	26418	369923	71.4
Total	21030	420	417277	438727	423065	66	51	0	3947	423065	6829724	61.1

Chart 2: Industrial water efficiency by F4
Industrial Water Efficiency
Water Consumption per Garment (L/Pcs)



3. Discussion

3.1 Chapter Outline

In the discussion section, the research findings will be thoroughly reviewed and summarized. This will include a comprehensive overview of the present stage of sustainable achievements in the selected apparel firms, such as F1, 2, 3, 4, and others. The analysis will also focus on identifying the gap between the prevailing sustainable stage and the customer auditing expectations, considering international standards.

Furthermore, the discussion will evaluate the strategies proposed to enhance investor attractiveness towards the apparel sector in Sri Lanka. The designed and formulated strategic approach to fill the identified gap will be examined, assessing its potential impact on foreign investors' confidence. The discussion will emphasize the importance of incorporating environment and socially sustainable goals to achieve higher export revenues and sustainable development in the apparel industry.

This section will address the limitations and challenges encountered during the implementation of the new strategies. It will identify the drawbacks and constraints, highlighting the difficulties in meeting international standards with existing resources. This analysis will provide valuable insights into the practicality and feasibility of implementing sustainable goals in the apparel sector.

Finally, the conclusion section will summarize the key findings from the research and discuss their implications for the apparel industry in Sri Lanka. It will provide a concise overview of the strategies recommended to enhance investor attractiveness and achieve sustainable development. The conclusion will also suggest further avenues for research and highlight the importance of disseminating the findings to relevant line agencies for attention and action.

3.2. Achievement of objectives

The following outlines the accomplishments corresponding to each research objective:

Objective 1: Identifying the present stage of sustainable achievements and customer requirements in selected leading export-oriented apparel firms (F1, 2, 3, 4, etc.).

The sustainable practices and achievements of the selected apparel firms were thoroughly examined through interviews, data collection, and analysis. Additionally, customer requirements and expectations regarding sustainability were assessed through customer auditing reports and feedback.

Objective 2: Analyzing the gap between the prevailing sustainable stage and customer auditing expectations.

A comprehensive analysis was conducted to identify the gaps and discrepancies between the existing sustainable practices of the apparel firms and the expectations set by customer auditors. Key areas for improvement and alignment with international standards were highlighted.

Objective 3: Discuss the target audience to design and formulate a strategic approach to fill the identified gap using existing resources.

The target audience, including the environmental and sustainable teams of the selected sector, were engaged in discussions and consultations to understand their perspectives and insights. Based on these discussions, a strategic approach was designed and formulated to bridge the identified gap, considering the available resources and capabilities.

Objective 4: Implementing new strategies to enhance foreign customers' attractiveness.

The formulated strategies were implemented in collaboration with relevant stakeholders, such as the Investment Appraisal Department of the BOI. The impact of these strategies on enhancing foreign customers' attractiveness and improving sustainability in the apparel sector was monitored and evaluated.

Objective 5: Identifying drawbacks and submitting further findings to relevant line agencies to draw attention.

Potential limitations, challenges, and drawbacks encountered during the implementation of the strategies were identified and analyzed. A comprehensive report highlighting these findings was submitted to the relevant line agencies, such as the BOI, to raise awareness and draw attention to necessary actions and improvements.

3.3. Relating the findings to literature

The challenges in governance mechanisms, trade-offs, and the lack of technical knowledge and policy decisions in a developing country context significantly contribute to understanding the gap between the prevailing sustainable stage and customer auditing expectations. In Sri Lanka, as a developing country with a growing apparel sector, incorporating sustainable practices and meeting customer auditing expectations present unique challenges and complexities.

One of the key challenges is the governance mechanism, which plays a crucial role in facilitating and coordinating sustainable development efforts. Ineffective governance hinders the implementation of sustainable practices in the apparel sector. The stakeholders involved, including the government, private sector, and civil society, often lack a comprehensive understanding of their roles and responsibilities in achieving sustainability goals. This leads to fragmented approaches, inconsistent policies, and inadequate regulations. Without a coherent and well-coordinated governance mechanism, it becomes difficult for apparel manufacturers to align their practices with customer auditing expectations.

Furthermore, trade-offs pose another significant challenge in achieving sustainable development. The Sustainable Development Goals (SDGs) and the Blue-Green economic approach encompass a wide range of economic, social, and environmental objectives. However, these goals may potentially conflict with each other, requiring difficult choices and trade-offs. For instance, achieving economic growth and job creation in the apparel sector might involve compromising environmental sustainability or social welfare. Resolving these trade-offs requires careful consideration, stakeholder engagement, and policy decisions that prioritize sustainable practices while balancing competing interests.

The lack of technical knowledge and expertise also presents a barrier to meeting customer auditing expectations for sustainability. Developing countries often face challenges in accessing and implementing advanced technologies and best practices that enable sustainable production in the apparel sector. Limited knowledge about resource-efficient technologies, circular economy principles, and innovative waste management systems hinders progress toward sustainability. Bridging this knowledge gap and building technical capacity among apparel manufacturers is essential for addressing the existing sustainability gaps and meeting customer auditing expectations.

Moreover, policy decisions play a crucial role in shaping the sustainability landscape in the apparel sector. However, the formulation and implementation of effective policies require a thorough understanding of the industry's dynamics, environmental impacts, and social considerations. Inadequate policy decisions, including the absence of supportive regulations, financial incentives, and enforcement mechanisms, hinder the adoption of sustainable practices. To bridge the gap between the prevailing sustainable stage and customer auditing expectations, policymakers need to develop robust policy frameworks that encourage and incentivize sustainable practices in the apparel sector.

Addressing these challenges requires a multi-faceted approach. First, strengthening the governance mechanism is essential. This involves fostering collaboration among stakeholders, enhancing their understanding of sustainable development objectives, and promoting effective communication and coordination. Clear roles and responsibilities should be defined, and mechanisms for monitoring and evaluating sustainability performance should be established.

Second, resolving trade-offs requires a comprehensive analysis of the interdependencies and potential synergies among the SDGs and the Blue-Green economic approach. This entails engaging stakeholders in a participatory decision-making process to identify trade-offs, explore win-win solutions, and prioritize actions that maximize sustainability outcomes across multiple dimensions.

Third, tackling the lack of technical knowledge and expertise necessitates capacity-building initiatives. This includes providing training and educational programs to enhance the understanding of sustainable practices, promoting knowledge sharing and collaboration, and facilitating access to technological advancements and innovation in the apparel sector. Collaboration with international partners, research institutions, and industry experts can contribute to knowledge transfer and skill development.

Lastly, policy decisions should be guided by a long-term vision for sustainable development in the apparel sector. This requires comprehensive policy frameworks that address environmental, social, and economic aspects of sustainability. Supportive regulations, financial incentives, and monitoring mechanisms should be in place to encourage and enforce sustainable practices. Policy coherence and integration across different sectors and stakeholders are crucial to ensuring a holistic and effective approach to sustainability.

Political instability and frequent changes in the political sphere significantly disrupt the formulation and implementation of consistent public policies, undermining the long-term planning and execution of sustainability initiatives. The uncertainty and unpredictability resulting from political instability create an unfavorable environment for businesses, hindering the country's ability to attract both foreign and local investors. As a consequence, the limited availability of resources and support for sustainable development projects further widens the understanding gap between the prevailing sustainable stage and customer auditing expectations.

To bridge this understanding gap effectively, it is imperative to address the multifaceted challenges faced by Sri Lanka's governance mechanisms. One of the primary areas of focus should be strengthening the public administration and management system. By streamlining bureaucratic processes, reducing hierarchical barriers, and fostering a more agile and responsive administrative structure, the government can better facilitate the implementation of sustainable practices and policies.

Transparency and accountability play a pivotal role in gaining public trust and enhancing the credibility of sustainability efforts. Therefore, it is essential to introduce and enforce measures that promote transparency in decision-making processes, allocation of resources, and the monitoring of sustainability-related initiatives. This will not only foster public trust but also ensure that sustainability efforts are carried out with integrity and efficacy.

To address the gap between the prevailing sustainable stage and customer auditing expectations, it is crucial to acknowledge and navigate the trade-offs that exist within the SDGs and the Blue-Green economic approach. A comprehensive understanding of these trade-offs will enable policymakers and stakeholders to develop more coherent and synergistic strategies that balance economic, social, and environmental objectives effectively.

Additionally, investing in technical knowledge and capacity-building initiatives is vital for empowering all relevant stakeholders, including government officials, businesses, and civil society actors. Enhancing technical expertise will lead to better-informed policy decisions and the implementation of sustainable practices across different sectors, including the apparel industry.

Promoting collaboration between the government, private sector, and civil society is indispensable in achieving a unified and practical approach to sustainable development. Public-private partnerships (PPPs) can play a significant role in mobilizing resources, sharing expertise, and jointly addressing sustainability challenges. Engaging civil society and local communities will help ensure that development efforts are aligned with the needs and aspirations of the people, thus fostering a sense of ownership and support for sustainable initiatives.

In the context of our research objectives, the challenges faced by organizations in the apparel sector when it comes to meeting the criteria of the Higg FEM audit can impact their ability to bridge the gap between prevailing sustainable practices and customer auditing expectations.

The first challenge relates to the establishment of a baseline for energy use and Greenhouse Gas (GHG) emissions. Without accurate historical data, organizations may struggle to set meaningful targets and track their progress over time. This gap between existing practices and customer expectations can hinder the organization's ability to demonstrate its commitment to sustainability.

Another challenge is the complexity of energy usage patterns in apparel manufacturing facilities. Identifying specific processes or machines that consume the most energy requires comprehensive energy audits and data analysis. However, limited resources and financial constraints can impede the investment in energy-efficient equipment and infrastructure upgrades necessary to improve energy use and reduce GHG emissions. This gap between sustainable aspirations and resource limitations can create challenges in meeting customer auditing expectations.

Technical expertise is also crucial in developing and implementing effective energy management strategies. However, organizations may lack the internal capabilities or resources to conduct comprehensive energy audits or hire certified professionals. This limitation can hamper their ability to identify and implement energy-saving measures that align with customer expectations.

Resistance to change within the organization can further exacerbate the gap between prevailing sustainable practices and customer auditing expectations. Shifting to more sustainable energy sources and adopting energy-efficient practices often requires changes to established processes and workflows. Overcoming resistance from employees or management who may be hesitant to embrace change can be a significant obstacle.

Finally, regulatory and policy challenges add another layer of complexity. Varying regulations and policies across regions can create uncertainty, making it harder for organizations to navigate and implement sustainable energy practices that align with customer auditing expectations.

To address these challenges and bridge the gap between prevailing sustainable practices and customer auditing expectations, organizations in the apparel sector need to prioritize data collection and analysis, build technical expertise, secure financial resources, foster a culture of change and innovation, and engage with policymakers and stakeholders to create a supportive regulatory environment. By doing so, organizations can make meaningful progress in improving their energy use, reducing GHG emissions, and meeting customer expectations for sustainability auditing.

3.4. Conceptual framework

Implementing new strategies to enhance foreign customer attractiveness and fill the identified gap requires a well-designed and strategic approach that leverages existing resources effectively. It is crucial to engage and collaborate with the target audience to ensure the success of these initiatives. By involving apparel manufacturers, sustainability professionals, government entities, and other stakeholders, the industry can collectively work toward sustainable development and meet customer expectations.

One key target audience for designing and formulating the strategic approach is apparel manufacturers. These companies play a critical role in the supply chain and have a direct impact on sustainability practices. Engaging apparel manufacturers is essential for successful implementation as they possess valuable insights and expertise in production processes. By providing them with the necessary support and resources, such as training programs on sustainable practices, energy management, and GHG emissions reduction, organizations can enable manufacturers to adopt and integrate sustainability measures. Collaboration with manufacturers can help identify operational and financial barriers they may face and work towards overcoming them. Sharing success stories and best practices among manufacturers can inspire others in the industry and promote a culture of sustainability.

Sustainability professionals also form a crucial target audience for implementing new strategies. Their expertise and knowledge are invaluable in developing action plans, monitoring progress, and identifying areas for improvement. Working closely with sustainability professionals ensures the effective execution of the strategies. They can provide insights into conducting energy audits, analyzing data, and recommending energy-efficient technologies. Regular communication and updates with sustainability professionals will ensure alignment with industry standards and enable continuous improvement. Their involvement in the implementation process will help bridge the gap between prevailing sustainability practices and customer expectations.

Government entities and regulatory bodies are important stakeholders in driving sustainability initiatives. Engaging with these entities is essential to create an enabling environment for sustainable development. By collaborating with government agencies, organizations can align their strategies with national policies and regulations. This alignment not only ensures compliance but also enables organizations to tap into available incentives, funding, and support mechanisms. Furthermore, engaging with regulatory bodies allows organizations to contribute to the development of industry standards and guidelines, making sustainability a shared responsibility.

Customers, both domestic and foreign, are a critical target audience for enhancing attractiveness. Their increasing demand for sustainable products and transparency in supply chains necessitates organizations to align their strategies accordingly. To understand customer

expectations, organizations can conduct market research and engage in dialogue with customers through surveys, focus groups, or direct communication channels. Based on these insights, organizations can tailor their strategies to meet customer preferences, such as sustainable sourcing, ethical production, and transparent communication. Implementing customer-centric strategies will not only enhance foreign customer attractiveness but also strengthen brand reputation and loyalty.

Industry associations and trade unions are additional target audiences that can contribute to the implementation of new strategies. These organizations often have a collective influence and can facilitate collaboration among different stakeholders. Engaging industry associations and trade unions enables knowledge-sharing, the exchange of best practices, and the development of industry-wide initiatives. By participating in industry associations and working with trade unions, organizations can amplify their impact, drive systemic change, and collectively address sustainability challenges.

Identifying the drawbacks and submitting further findings to relevant line agencies is crucial for capturing their attention and addressing the gaps and challenges in the implementation of sustainable practices in the apparel sector. By highlighting these issues, organizations can advocate for policy changes, resource allocation, and support from government entities.

One significant drawback is the lack of supportive policies. Existing policies may be insufficient or non-existent in promoting sustainable practices in the apparel sector. By submitting findings that emphasize the need for comprehensive policies, incentives, and supportive frameworks, attention can be drawn to the importance of creating an enabling environment for sustainability. This includes policies that incentivize energy efficiency, promote renewable energy sources, and enforce environmental regulations throughout the apparel supply chain.

Another drawback is the limited access to infrastructure and technology necessary for sustainable practices. Many organizations in the apparel sector face challenges in acquiring energy-efficient technologies, renewable energy sources, and infrastructure upgrades. By highlighting these limitations in the findings, line agencies can be made aware of the need to provide support and resources to overcome these barriers. This can involve initiatives such as providing financial incentives or grants to encourage investment in sustainable infrastructure, fostering partnerships with technology providers, or establishing research and development programs to advance sustainable solutions specific to the apparel industry.

Additionally, there may be a lack of awareness and capacity within organizations regarding sustainable practices. Many stakeholders may not have access to the necessary knowledge and expertise to implement sustainability initiatives effectively. By identifying this gap in the findings, line agencies can be informed of the need to provide training programs, capacity-building initiatives, and technical assistance to support organizations in adopting and implementing sustainable practices. This can involve workshops, seminars, or knowledge-sharing platforms that facilitate the dissemination of best practices and encourage collaboration among industry stakeholders.

Furthermore, the findings may reveal gaps in data collection and monitoring mechanisms related to sustainability performance. Organizations may struggle to collect accurate and reliable data on energy use, greenhouse gas emissions, and other sustainability indicators. By highlighting these data-related challenges, line agencies can be urged to develop standardized reporting frameworks, provide guidance on data collection methodologies, and establish monitoring systems to track progress and measure the impact of sustainability initiatives. This can enable organizations to make informed decisions, set realistic targets, and track their performance over time.

To effectively implement the new strategies and fill the identified gap, organizations should consider utilizing existing resources. This includes leveraging partnerships with research institutions, universities, and NGOs that focus on sustainability and environmental initiatives. These organizations can provide technical expertise, conduct research, and offer capacity-building programs. Collaborating with these entities allows organizations to tap into their knowledge and experience and leverage their networks to implement the strategies effectively.

In summary, involving the target audience is crucial for the successful implementation of strategies aimed at enhancing foreign customer attractiveness and bridging the identified gap. Engaging apparel manufacturers, sustainability professionals, government entities, customers, industry associations, trade unions, and other stakeholders ensures a collaborative and holistic approach. By leveraging existing resources and partnerships, organizations can maximize their impact and drive sustainable development in the apparel sector. Through effective implementation, the industry can meet customer expectations, strengthen its competitive advantage, and contribute to the achievement of sustainable development goals.

4. Conclusion

In conclusion, this research sheds light on the existing gap between the prevailing sustainable stage and customer auditing expectations in the Sri Lankan apparel sector, considering industry leaders such as F 1, 2, 3, and 4. By examining the challenges and opportunities faced by these organizations, valuable insights have been gathered to develop effective strategies and bridge the identified gap.

One key finding is the impact of political instability and changing policies on sustainable practices. The apparel industry in Sri Lanka, including companies like F 1, 2, 3, 4, and 5, faces difficulties in implementing long-term sustainability initiatives due to inconsistent public policies. This research emphasizes the importance of engaging relevant line agencies and policymakers to advocate for stable and supportive regulatory frameworks, enabling organizations to plan and implement sustainable practices more effectively.

The research also identifies the lack of baseline data for energy use and GHG emissions as a significant drawback. These selected factories can play a pivotal role in collaborating with stakeholders and line agencies to establish accurate baselines. By promoting data collection and transparency in reporting, these organizations can contribute to the development of industry-wide sustainability targets and effectively track progress over time.

Addressing technical knowledge gaps is another crucial aspect highlighted in the research. Organizations like F 1, 2, 3, 4, and 5 can lead the way in investing in employee training programs, fostering knowledge exchange platforms, and sharing best practices. By enhancing technical expertise and promoting a culture of continuous improvement, the industry can overcome challenges related to energy efficiency, resource optimization, and the adoption of sustainable technologies.

This research emphasizes the strategic utilization of existing resources to bridge the identified gap. The factories in the Sri Lankan apparel sector can prioritize resource optimization by investing in energy-efficient technologies and exploring renewable energy sources. These organizations can serve as role models by implementing sustainable strategies, showcasing their success, and inspiring other companies to follow suit.

Additionally, the research underscores the importance of engaging foreign customers and enhancing their attractiveness towards Sri Lankan apparel. F 1, 2, 3, 4, and 5 can leverage their global networks, market presence, and reputation for sustainability to position Sri Lanka as a preferred sourcing destination. By effectively communicating their sustainability efforts, certifications, and compliance with customer auditing expectations, these companies can attract international buyers and foster long-term partnerships based on shared values.

In conclusion, bridging the gap between the prevailing sustainable stage and customer auditing expectations in the Sri Lankan apparel sector requires collaboration, strategic utilization of resources, and engagement with relevant stakeholders. F 1, 2, 3, 4, and 5, by actively participating in industry-wide initiatives, advocating for stable policies, improving data collection and reporting practices, fostering technical expertise, and enhancing international customer attractiveness, can drive the industry towards a more sustainable and responsible future.

4.1. Suggestions

Based on the research findings, several recommendations can be made to enhance the understanding and bridge the gap between the prevailing sustainable stage and customer auditing expectations in the Sri Lankan apparel sector.

Firstly, it is crucial to foster collaboration among key industry players such as F 1, 2, 3, 4, and 5, as well as other apparel companies. Establishing a platform for knowledge sharing, best practices exchange, and joint initiatives can create a unified approach towards sustainability. This collaboration can include sharing experiences, conducting joint research projects, and participating in industry-wide sustainability forums or working groups. By pooling their resources, expertise, and influence, these organizations can collectively drive change and elevate sustainable practices in the sector.

Secondly, investing in knowledge and capacity building is essential. Companies should prioritize training programs and workshops to enhance the technical skills and knowledge of their employees. By providing specialized training on energy management, environmental sustainability, and compliance, organizations can empower their workforce to implement sustainable practices effectively. Additionally, engaging with educational institutions and research organizations can foster the development of relevant expertise and support innovation in sustainable technologies and processes.

Establishing industry-wide standards and guidelines for sustainable practices is crucial. Collaborative efforts involving these apparel factories and other stakeholders can lead to the development and adoption of common sustainability frameworks. These frameworks should align with customer auditing expectations and international standards, addressing key aspects such as energy use, greenhouse gas emissions, water management, waste reduction, and supply chain transparency. By adhering to these standards, organizations can demonstrate their commitment to sustainability and gain a competitive advantage in the global market.

Engaging with relevant line agencies and policymakers is necessary to advocate for supportive policies and regulations. The research findings should be shared with government bodies responsible for setting and enforcing sustainability standards. By highlighting the challenges and opportunities faced by the industry, stakeholders can influence the development of policies that facilitate sustainable practices. Regular dialogue and collaboration with regulatory authorities can ensure that the interests of the industry and the environment are aligned.

Continuous monitoring, evaluation, and reporting are vital to track progress and identify areas for improvement. Implementing robust monitoring systems, data collection mechanisms, and reporting frameworks will enable organizations to measure their sustainability performance accurately. F1, 2, 3, 4, and 5 and other industry leaders can play a significant role in promoting transparency and accountability by sharing their sustainability reports and best practices with the broader industry.

In conclusion, addressing the gap between the prevailing sustainable stage and customer auditing expectations in the Sri Lankan apparel sector requires collaborative efforts, capacity building, standardization, policy advocacy, and robust monitoring. By working together, the apparel sector and others can drive the adoption of sustainable practices, enhance customer attractiveness, and contribute to a more sustainable and resilient apparel industry in Sri Lanka.

4.2. Area for further researches

Incorporating environmental and socially sustainable goals to enhance investor's attractiveness towards the apparel sector in Sri Lanka requires further research in several key areas. Firstly, a comparative analysis of leading export-oriented apparel firms such as F 1, 2, 3, 4, and others can provide valuable insights into their sustainable achievements and customer requirements. By studying their approaches and identifying gaps between current practices and customer expectations, researchers can formulate strategies to bridge these gaps effectively.

Engaging with stakeholders is another crucial area for further research. Understanding the perspectives and expectations of environmental and sustainable teams, third-party customer auditors, and project officers of the Investment Appraisal Department of BOI can offer valuable insights. Through interviews, questionnaires, and engagement with these stakeholders, researchers can gather comprehensive data to design targeted strategies that utilize existing resources effectively.

The implementation of new strategies to enhance foreign customer attractiveness also requires research. By analyzing case studies and success stories, researchers can identify the practical approaches used by apparel companies to align their operations with sustainable goals. Understanding the challenges faced during implementation and the strategies employed to overcome them can provide valuable guidance to other organizations seeking to improve their sustainability performance.

Examining the existing policy and regulatory framework related to sustainability in the apparel sector is crucial. Researchers can identify limitations and areas for improvement and submit findings on drawbacks and recommendations to relevant line agencies. This research can contribute to the development of supportive policies, incentives, and regulations that accelerate sustainability efforts and make the sector more attractive to investors.

Additionally, a long-term impact assessment is necessary to evaluate the effectiveness of incorporating sustainable environmental and social goals. Researchers can conduct longitudinal studies to assess the economic, environmental, and social outcomes achieved over time. This analysis can provide insights into the long-term benefits and challenges associated with sustainability practices in the apparel industry, informing future strategies and decision-making.

By addressing these research areas, policymakers, industry stakeholders, and researchers can gain a deeper understanding of the practical approaches, challenges, and opportunities in incorporating sustainable goals in the apparel sector. This knowledge can drive informed decision-making, facilitate the formulation of targeted policies, and ultimately accelerate the sector's attractiveness to foreign investors while contributing to sustainable development in Sri Lanka.

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References

- Abayasekara, A. (2013). GSP+ removal and the apparel industry in Sri Lanka: Implications and way forward. *South Asia Economic Journal*, 14(2), 293-316. <https://doi.org/10.1177/1391561413500177>
- Amui, L. B. L., Jabbour, C. J. C., de Sousa Jabbour, A. B. L., & Kannan, D. (2017). Sustainability as a dynamic organizational capability: A systematic review and a future agenda toward a sustainable transition. *Journal of Cleaner Production*, 142, 308-322. <https://doi.org/10.1016/j.jclepro.2016.07.103>
- Anderson, K., & Martin, W. (2009). *Distortions to agricultural incentives in Asia*. The World Bank Publications. <https://doi.org/10.1596/978-0-8213-7662-1>
- Babiak, K., & Trendafilova, S. (2011). CSR and environmental responsibility: Motives and pressures to adopt green management practices. *Corporate Social Responsibility and Environmental Management*, 18(1), 11-24. <https://doi.org/10.1002/csr.229>
- Baskaran, V., Nachiappan, S., & Rahman, S. (2012). Indian textile suppliers' sustainability evaluation using the grey approach. *International Journal of Production Economics*, 135(2), 647-658. <https://doi.org/10.1016/j.ijpe.2011.06.012>
- Birtwistle, G., & Moore, C. M. (2007). Fashion clothing – where does it all end up? *International Journal of Retail & Distribution Management*, 35(3), 210-216. <https://doi.org/10.1108/09590550710735068>
- Boo, S., & Kim, M. (2010). Understanding supplier-selection criteria: Meeting planners approaches to selecting and maintaining suppliers. *Journal of Travel & Tourism Marketing*, 27(5), 507-518. <https://doi.org/10.1080/10548408.2010.499062>
- Bryman, A., & Bell, E. (2012). *Social research method* (4th ed.). Oxford University Press.
- Central Bank of Sri Lanka. (2010). *Annual report*. Author.
- Chen, T., Larsson, A., & Mark-Herbert, C. (2014). Implementing a collective code of conduct–CSC9000T in Chinese textile industry. *Journal of Cleaner Production*, 74, 35-43. <https://doi.org/10.1016/j.jclepro.2014.03.026>
- Choi, T.-M., & Cheng, T. C. E. (Eds.). (2015). *Sustainable fashion supply chain management*. <https://doi.org/10.1007/978-3-319-12703-3>
- Cooke, F. L., & He, Q. (2010). Corporate social responsibility and HRM in China: A study of textile and apparel enterprises. *Asia Pacific Business Review*, 16(3), 355-376. <https://doi.org/10.1080/13602380902965558>

- Dennison, S. (2010). The price of principle. http://www.ecfr.eu/article/commentary_the_price_of_principle
- De Silva, N., Malaga, J., & Johnson, J. (2012). Trade liberalization, free trade agreements, and economic growth: The case of Sri Lanka. *Journal of International Agricultural Trade and Development*, 1556, 241.
- Dheerasinghe, R. (2009). Garment industry in Sri Lanka challenges, prospects and strategies. *Staff Studies*, 33(1), 33-72. <https://doi.org/10.4038/ss.v33i1.1246>
- Khan, M., & Tufail, M. A. (2021). Corporate social responsibility and sustainable practices in the apparel industry. *Textile Research Journal*, 91(5), 455-470.
- Mugiati, Sudarmadji, Widhaningrum, A., & Marwasta, D. (2016). Corporate social responsibility practices in the apparel industry. *Ushus - Journal of Business Management*, 7(1), 29-52. <https://doi.org/10.12725/ujbm.12.3>
- Thakker, A. M., & Sun, D. (2023). Sustainable development goals for textiles and fashion. *Environmental Science and Pollution Research*, 30(46), 101989-102009. <https://doi.org/10.1007/s11356-023-29453-1>
- United Nations Conference on Trade and Development. (2021). *World investment report: Investing in sustainable recovery*. <https://unctad.org>
- United Nations Environment Programme. (2020). *Sustainability and circularity in the textile value chain*. <https://www.unep.org>
- United Nations Global Compact. (2021). *Accelerating action on SDGs in the apparel sector*. <https://unglobalcompact.org>
- Vidanage, T., Wanniarachchi, T., Hemachandra, K., & Ranaweera, R. A. A. K. (2024). *Textiles of Sri Lanka: Sustainable innovations and practices*. <https://doi.org/10.1007/978-981-97-0569-6>



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