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Abstract

Pakistan's textile industry is vital to GDP, employment, and exports. Pakistan is strategically located in the global textiles and apparel market due to its large production and export capabilities. This sector struggles with inconsistent product quality, market barriers, high global standards, and protectionist trade policies in wealthy nations. Addressing these issues is essential for industry growth and global competitiveness. This study identifies these challenges and proposes strategic solutions to improve export performance and global competitiveness to boost Pakistan's textile sector's economic stability and growth. A thorough mixed-methods strategy integrating qualitative and quantitative research methodologies was employed in the study. By conducting surveys by websites and literature reviews related to the industry, we were able to gather primary data. We also used secondary sources such as government reports, trade journals, and trade organizations to compile our data. We used quantitative analyses in our study to determine how spending on R&D, technology upgrades, and quality control affected export performance. We looked at energy consumption, production, waste management, and export amounts in various industries of Pakistan. Improving export performance and meeting international standards requires investments in quality control, technology upgrades, and research and development, according to the study. It also lists the obstacles to entering certain markets and suggests ways to overcome them, such as through government assistance, sustainable practices, and vocational education and training. If Pakistan's textile industry follows these suggestions, it will become more competitive internationally.

Keywords: Pakistan Textile Industry, Development Barriers, Strategic Solutions, Textile Ex

1. Introduction

The textile industry is the most important manufacturing sector in Pakistan, contributing significantly to the country's economy. In addition to contributing significantly to Pakistan's GDP, it also creates jobs and gets money from outside. The cotton industry employs a large percentage of the labor force and has an indirect and direct influence on the lives of millions of people throughout the many steps involved, including ginning, spinning, weaving, finishing, and garment production. Almost 60% of the country's exports come from the textile industry, making it an important engine for industrial growth. The agricultural production of Pakistan and cotton in particular, is an essential raw material for this industry (Ahmed 2008, Atkar, Pabba et al. 2021). Pakistan ranks third in Asia for spinning capacity and fourth in the world for producing cotton yarn and cloth, accounting for 5% of the global total. Not only do these numbers show how important Pakistan is to the global textile market, but they also show how much room there is for improvement in this industry (Roy Choudhury 2013, Abdullah and Khan 2022).

With substantial impacts on GDP, employment, and export earnings, Pakistan's textile industry is an important wheel of the country's economic machine. When it comes to the global textile market (Atkar, Pabba et al. 2021) Pakistan is a key player, being both a major producer and exporter of textiles and clothing. There are a number of obstacles that the industry must overcome if it is to compete successfully on a worldwide basis. Inconsistent product quality, Target to the new markets, overall stringent adherence to international standards, and protectionist trade policies in wealthy nations are all examples of such difficulties. Sustained growth and global competitiveness of Pakistan's textile sector depend on resolving these issues (Nazeer 2019).

It is critical to increase textile exports. It incorporates crucial sustainability factors and goes beyond merely increasing volume. Investment in environmentally friendly technology and conformity to worldwide production standards are critical. It is also important to create products that can adapt to the ever-changing demands of global markets (Chowdhury 2017). Reducing environmental impact and increasing appeal to eco-conscious consumers globally requires the industry to implement sustainable practices. Improving the country's long-term economic stability and making it less susceptible to global economic fluctuations are both made possible by attaining sustainable growth (Shaikh, Syed et al. 2012). Pakistan can keep its textile industry competitive while being environmentally responsible by using sustainable methods. These methods include using organic cotton, minimizing energy and water consumption, and adopting cleaner manufacturing technologies (Masum Ahmed Choudhury 2003). The rising worldwide demand for sustainable products is becoming an increasingly important factor in consumer purchasing decisions, and these practices not only align with that demand but also contribute to global ecological efforts (Husain 2018).

The global textile market, characterized by fierce competition and rapid technological advancements, demands constant adaptation and innovation. Pakistan, to maintain and enhance its competitive edge, must address several critical challenges (Shaikh and Rahpoto 2009). These include technological lags, which hinder the adoption of advanced manufacturing processes; regulatory hurdles that slow down business operations; and market access barriers that limit entry into new and existing markets. Overcoming these challenges is crucial not only for securing a stable position in the international markets but also for ensuring the growth of Pakistan's textile exports in a sustainable manner (Tabbasum 2015).

By leveraging its extensive textile infrastructure and improving value addition in its export products, Pakistan can better meet global standards and increase its share in the international textile trade. This strategic focus is essential for enhancing economic stability and achieving long-term growth in the textile sector. Addressing these challenges head-on will not only bolster Pakistan's economic standing but also ensure the sustained development and global competitiveness of its textile industry.

1.1. Research Questions

- What are the primary challenges faced by Pakistan's textile industry regarding product quality, market access, compliance with international standards, and trade barriers?
- What are the underlying causes of these challenges?

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- What strategic solutions can be implemented to address these challenges and enhance the industry's export performance? Researchers hope that policymakers will use the study's findings to inform textile sector development initiatives. The strategic recommendations can also help textile manufacturers enhance their problems and solidify their position in the market. In the long run, this will help make the industry stronger and more innovative.

1.2. Research objectives

- To identify and analyze the key challenges faced by Pakistan's textile industry.
- To explore the underlying causes of these challenges.
- To propose strategic solutions to improve the industry's global competitiveness and sustainability

The primary objective of this research is to identify the heaviest problems facing by Pakistan's textile sector and propose workable solutions. The study's overarching goal is to provide solutions to these problems so that the industry can become more globally competitive and boost its export performance.

2. Literature review

The textile industry in Pakistan is a vital component of the national economy, significantly contributing to employment, exports, and GDP. Despite its importance, the industry faces numerous challenges that hinder its growth and competitiveness in the global market. This literature review synthesizes findings from various published works to provide a comprehensive understanding of these challenges and explores potential countermeasures to promote the export growth of Pakistani textile products.

2.1. Quality and Compliance Issues

Quality control and compliance with international standards are critical for the success of textile exports. According to Naqvi et al. (2011), Pakistan's textile sector suffers from inconsistent quality across different segments, impacting its competitiveness in global markets. They highlight that many small to medium enterprises (SMEs) lack rigorous quality control systems, leading to variability in product standards (Akram, et al., (2023)). This inconsistency is exacerbated by limited financial and technological resources, preventing SMEs from investing in advanced quality control mechanisms (Shah et al., 2020; Khan et al., 2019).

Inadequate training of the workforce further compounds quality issues (Akram et al., (2023)). Continuous training programs are essential to keep workers updated with the latest standards and practices (Shah et al., 2020). The role of government and industry collaboration is also highlighted by multiple studies, suggesting that large manufacturers should collaborate with SMEs to share best practices and resources, enhancing overall quality across the industry (Khan et al., 2019; Asian Development Bank, 2009).

2.2. Market Access Barriers

Market access barriers, including high tariffs, stringent non-tariff measures (NTMs), and costly certification processes, significantly impede the export potential of Pakistani textiles. High tariffs imposed by importing countries make Pakistani products less competitive due to increased costs (Hussain & Asad, 2020; Lang, 2009). Different countries impose varying levels of tariffs on textile products, affecting their pricing and demand.

Stringent NTMs, such as safety, quality, and environmental standards, further complicate market access. Compliance with these measures requires substantial investment in testing and certification, which can be particularly burdensome for smaller producers (Raza & Faiz, 2021; Alam & Khan, 2010). The certification processes required to access international markets are both costly and time-consuming, limiting the ability of smaller producers to enter premium markets (Asian Development Bank, 2009; Hussain & Asad, 2020).

To overcome market access barriers, negotiating trade agreements to secure favorable terms and reduce tariffs is essential (Asghar et al., 2023). Government-backed support for obtaining necessary international certifications can help smaller producer's access international markets (Hafeez et al., 2023). Additionally, targeted marketing strategies focused on specific market needs and standards can improve competitiveness in international markets (Hussain & Asad, 2020; Alam & Khan, 2010).

2.3. Equipment and Technological Challenges

The textile industry in Pakistan is hampered by equipment-related challenges, primarily due to outdated machinery. Much of the machinery used in the industry is outdated, leading to inefficiencies in production and higher maintenance costs (Khan et al., 2019; Naqvi et al., 2011). The reliance on old equipment results in frequent breakdowns and high maintenance expenses, further reducing the industry's competitiveness. Upgrading to modern equipment involves significant financial investment, which many manufacturers find prohibitive (Lang, 2009; Raza & Faiz, 2021).

2.4. Skilled Workforce and Training Issues

The lack of investment in vocational and technical education related to the textile industry exacerbates the problem. Without a concerted effort to develop a skilled workforce, the industry will continue to struggle with issues of productivity and quality, limiting its ability to compete on a global scale (Alam & Khan, 2010; Asian Development Bank, 2009). Shah et al. (2020) and Lang (2009) emphasize that bridging this skill gap through comprehensive training programs is essential for maintaining consistent quality and fostering the adoption of new technologies within the industry.

3. Methodology

3.1. Contents

This research overview different contents to show and analysis the possibilities of Pakistan textile export companies, the research will analyses the current situation of Pakistan textile export product such as Masood textile industry, Ibrahim textile industry, Saffair textile and etc. which could bring different in competition to other countries' textile export products that will need to target Global market, Also the research will elaborate the different analysis on current situation, the export performance, the problems that affect the export and the causes of the problems and their solutions whereby it will explain different features, advantages and the disadvantages of Pakistan textile export product. The research wills also analyses different methods to the solution in which we

have studied various existing high profile industries of Pakistan and based our analysis on these specific use cases the problem they faced and the solutions they implemented are the key factors towards the growth of exports in Pakistan.

This study utilizes a mixed-methods research design to comprehensively address the identified challenges within Pakistan's textile industry. This approach integrates quantitative and qualitative methodologies to provide a holistic understanding of the issues and potential solutions. Some of the

3.2. Data Collection Methods

3.2.1. Quantitative Data

Primary Data: Published reports on structured surveys targeting textile manufacturers of varying scales across different regions in Pakistan to gather specific information on operational efficiencies, export challenges, and the impact of government policies.

Secondary Data: Statistical data from government reports, industry publications, and trade organizations to analyze trends and performance metrics.

4. Result and dissection

The textile industry in Pakistan plays a crucial role in the country's economy. It is one of the largest contributors to Pakistan's export earnings, providing employment to millions of people. However, the industry has faced various challenges over the years, including fluctuating global demand, competitive pressures from other textile-producing countries, and internal issues such as energy shortages and outdated technology.

The graph below shows the growth of Pakistan's textile exports over a decade, highlighting significant trends and projections.



Figure 1: fy 2014-fy 2023 Pakistan's textile exports
Source of data: USDA official report 2024

The trajectory of Pakistan's textile exports from FY14 to FY23 demonstrates a remarkable narrative of stability, disruption, resilience, and growth. From FY14 to FY19, the export values hovered around the \$12 to \$13 billion mark, reflecting a period of stability but slow growth. This phase saw the industry grappling with global competition, fluctuating cotton prices, and internal inefficiencies, which kept growth rates modest.

The advent of the COVID-19 pandemic in FY20 introduced significant challenges, causing a dip in export values to around \$12 billion. The pandemic's impact on global supply chains and demand created a tough environment for the textile sector. However, the industry showcased resilience, bouncing back in FY21 with exports rising to \$15 billion. This recovery was driven by the reopening of global markets, resurgence in demand, and strategic adjustments by Pakistani exporters to navigate the new market conditions.

Additionally, Pakistani textile exporters diversified their markets beyond traditional ones like the EU and the USA, exploring new opportunities in Asia, Africa, and Latin America. This diversification mitigated risks associated with dependency on limited markets and opened new avenues for growth. There has also been a growing emphasis on sustainability within the sector. Companies are increasingly adopting eco-friendly practices and sustainable production methods, which are highly valued by international buyers.

Recent data for FY24 continues to highlight positive trends. In January 2024, textile exports reached \$1.45 billion, marking a 10.10% increase from the previous year. February 2024 saw exports at \$1.41 billion, a 20% year-on-year increase. March 2024 recorded exports of \$1.3 billion, reflecting a 3% year-on-year growth but an 8% decrease from February. For the first nine months

of FY24 (July-March), total textile exports amounted to \$12.44 billion, showcasing the industry's resilience despite ongoing challenges.

Table 1: Key Segments and Market Share

Segment	Market Share (%)	Growth Rate (%)
Apparel	55	6
Home Textiles	25	4
Technical Textiles	10	9
Others	10	3

Source of Data: USDA official Report 2023

The volume of textile exports from Pakistan has demonstrated notable fluctuations influenced by global market demands, regional competition, and domestic production capabilities. According to the State Bank of Pakistan, the textile sector achieved a record high of \$19.33 billion in exports during FY2022, marking a 25.5% increase from \$15.40 billion in FY2021. This growth was largely driven by government incentives and increased international demand post-COVID-19.

Table 2: Annual Export Volumes and Growth Rates:

Year	Export Volume (in billions USD)	Growth Rate (%)
2018-19	13.40	N/A
2019-20	12.53	-6.48
2020-21	15.40	22.94
2021-22	19.33	25.53
2022-23	16.50	-14.63

Source of data: USDA official Report 2023

Key segments such as knitwear and readymade garments showed significant growth; knitwear increased in value by 34.2% despite a 6.1% drop in quantity, and readymade garments rose by 49.2% in quantity and 28.8% in value. Conversely, cotton yarn exports grew in value by 18.7% but fell in quantity by 13.9%, indicating a shift towards higher quality products.

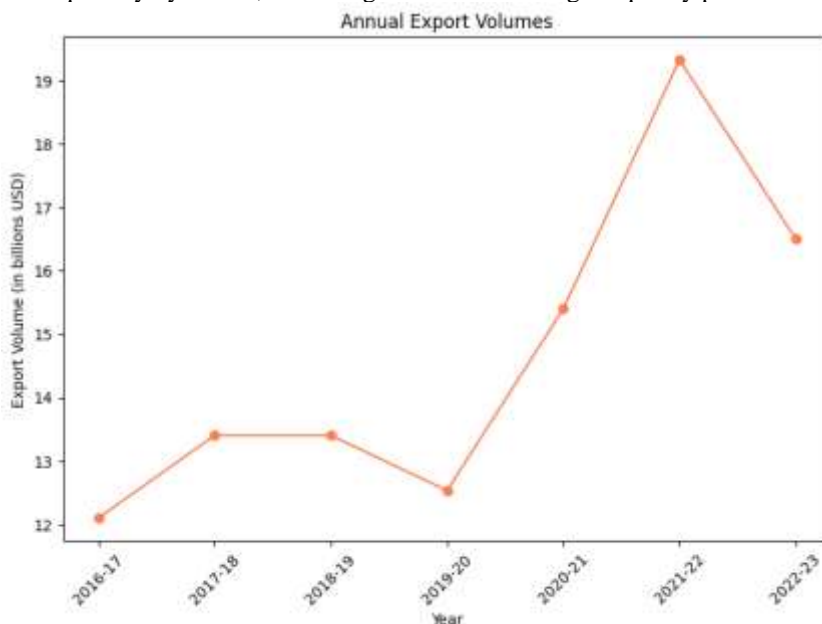


Figure 2: 2016-2023 Pakistan Annual Export Volume

Source of data: USDA official Report

However, Pakistan faces stiff competition from regional players like Bangladesh, where textile exports grossed \$32.7 billion compared to Pakistan's \$18.3 billion in the same period. To enhance competitiveness and meet the ambitious targets of the Textile Policy 2020-25, such as increasing exports to \$50 billion within five years, Pakistan will need to focus on modernizing its textile industry, diversifying its product range, and leveraging both home-grown and manmade fibers more effectively.



Figure 3: Pakistan's Textile Exports by Destination FY 22-23

Source of data: USDA official Report

5. Problems and Causes in Export Textile Products of Pakistan

5.1. Product Quality and Compliance Challenges

The quality and compliance challenges faced by the Pakistani textile industry are multi-faceted, affecting various segments and aspects of the industry. These challenges are critical to address if Pakistan is to improve its competitiveness in the global textile market.

5.2. Inconsistent Quality across Industry Segments

The inconsistency in product quality is a significant issue within the Pakistani textile industry, marked by a stark contrast between large-scale manufacturers and small to medium enterprises (SMEs). Large-scale manufacturers typically adhere to higher standards due to better access to resources, advanced technology, and well-established quality control systems. These manufacturers can implement rigorous quality management practices, ensuring that their products meet international standards consistently.

In contrast, SMEs struggle with maintaining consistent quality control. This inconsistency arises primarily from several factors. First, the lack of rigorous quality control systems in SMEs is a major hurdle. These enterprises often lack the infrastructure and resources to implement comprehensive quality control systems, leading to variability in product quality as there is no standardized process to ensure consistency. Second, smaller manufacturers may not fully adhere to established quality management practices due to limited access to training and resources. This lack of adherence results in products that do not consistently meet quality standards. Third, financial constraints prevent SMEs from investing in the latest technology and quality control mechanisms, hindering their ability to produce high-quality products consistently.

5.3. Defects and Non-Compliance

Defects in textile products and non-compliance with international standards are common issues that plague the Pakistani textile industry. These defects can manifest in various forms, significantly affecting the quality and marketability of the products. One frequent problem is poor yarn or fabric strength, leading to products that lack durability. This weakness often stems from poor-quality raw materials or inadequate production processes.

Colorfastness problems are another significant defect, where dyes bleed or fade after washing. This issue typically results from the use of substandard dyes or improper dyeing techniques. Additionally, finished goods often contain unacceptable levels of contaminants or physical imperfections, such as spots, streaks, or holes. These problems arise from inadequate cleaning and inspection processes during production.

5.4. High Rates of Returns and Complaints

The struggle to maintain high product quality in the Pakistani textile industry is reflected in the high rates of returns and customer complaints, leading to several significant repercussions. Firstly, high return rates result in substantial financial losses for manufacturers. Processing these returns involves additional costs for handling, restocking, and potentially disposing of flawed goods. Secondly, to manage inventory, manufacturers often resort to discounting flawed goods, which leads to reduced profit margins.

Furthermore, frequent quality issues tarnish the reputation of Pakistani textiles, resulting in lost sales opportunities as buyers turn to more reliable sources. High rates of returns and complaints not only impact the financial health of individual companies but also damage the overall reputation of the Pakistani textile industry. A poor reputation for quality can lead to a long-term loss of market share in international markets, emphasizing the urgent need for improved quality control and adherence to international standards.

5.5. Diverse International Standards

Compliance with diverse international standards is a formidable challenge for the Pakistani textile industry, given that different countries have their own specific requirements for textile products. These requirements encompass several key areas.

6. Conclusion

6.1. Summary of Findings

The analysis of Pakistan's textile industry underscores several critical challenges that are pivotal to the industry's advancement. Among these challenges are inconsistent product quality, market access barriers, compliance with international standards, and trade protectionism. Through a combination of quantitative data analysis and qualitative case studies, it has been revealed that different regions and scales of operation face unique challenges. However, there are common issues that permeate the industry, such as maintaining consistent quality standards, accessing markets, and adhering to international regulations. Addressing these challenges with targeted solutions, such as advanced quality management systems, sustainable practices, and strategic partnerships, has already led to notable improvements in production efficiency, market access, and export performance.

To enhance product quality, it is essential to implement rigorous quality management systems that standardize quality control processes across all segments of the industry. This includes the development and enforcement of industry-wide quality benchmarks that all manufacturers must adhere to. Continuous training programs are imperative; these programs should focus on regularly updating the skills of both workers and management to ensure they can maintain high-quality standards and adapt to evolving industry requirements. Furthermore, fostering collaboration between large manufacturers and small and medium-sized enterprises (SMEs) can facilitate the sharing of best practices and resources, thereby uplifting the entire sector's quality standards. Improving market access necessitates a multifaceted approach. Engaging in negotiations to secure favorable trade agreements is a critical step. Such agreements should aim to reduce tariffs and streamline non-tariff measures, making it easier for Pakistani textile products to enter international markets. Government-backed support for obtaining necessary international certifications can also play a vital role in this regard. These certifications not only enhance market access but also build international credibility. Additionally, targeted marketing efforts that focus on specific market needs and standards can help tailor products to meet the precise demands of various global markets.

6.2. Future Research Directions

Evaluating the impact of government policies on the textile sector's performance through empirical studies is essential for understanding their effectiveness. Such research can provide insights into how trade agreements and other policies influence industry outcomes, enabling more informed decision-making.

Researching the role of market diversification and corporate social responsibility (CSR) initiatives in enhancing competitive advantage can reveal how these strategies contribute to the industry's global standing. These studies can highlight the benefits of expanding into new markets and adopting CSR practices.

Technological advancements play a crucial role in the textile industry. Studies on the impact of digital transformation and new technologies can demonstrate how these advancements improve efficiency and productivity. Additionally, exploring innovative manufacturing processes and sustainable practices can uncover methods to make the industry more sustainable and competitive.

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