



Final Year Project Showcase Batch 2018 Year 2022

Department: Economics and Management Sciences		
Programme: Management Sciences		
1	Project Idea	Textile industry is one of the largest industries in Pakistan and has a significant contribution to the Pakistani economy. But it is also one of the most polluting industries because of its use of chemicals and other practices. The concept of sustainability is not implemented and focused on in local companies as it is in the West. Moreover, we failed to find any study that shows the impact of sustainable supply chain practices on any Pakistani company. And the topic is taking attention in the textile sector specially because textile uses most of the natural and virgin resources which is a serious threat to the need of future generations. So, we investigated the impact of sustainable practices in the supply chain being followed in Yunus Textile Mills as it is one of the largest exporters of textile products in Pakistan and adopts practices to make their value chain sustainable. Our study was primarily focused on evaluating the present raw material, production, and packaging processes of Yunus textile mills in order to build an effective, sustainable system. We aimed to identify their sustainable practices and their impact on the environment and value chain.
2	Process	First, we conducted a wide literature search to highlight the important points from prior research contributions and to select a proper research approach. Based on that, we designed the research methodology for our study. The questionnaire was collected from existing research in another country, which verifies the validity and reliability of the questionnaire. After data collection, it was categorized as qualitative and quantitative data. Quantitative data obtained from YTM personnel's interviews helped to quantify and analyze the impact of sustainable practices being followed at Yunus Textile Mills. The qualitative data gathered through verbal observation of processing sites was used to identify the common themes of sustainability being followed in Yunus Textile Mills.
3	Outcome	From our research and analysis, it was apparent that sustainable practices have a significant and positive impact not only on the environment and value chain of the company but also on brand image. Sustainable practices favor environmental sustainability and also attract a larger consumer base. It was concluded that the Pakistani textile industry should embrace sustainable practices in order to serve the environment as well as expand business across borders.
4	Evidence (Theoretical Basis)	The textile industry is one of the most polluting industries, it is critical that it adopts sustainable methods. The waste of textile industry is a severe environmental hazard since it causes problems for humans, aquatic life, and other environmental factors. Sustainable practices in supply chain



		<p>will make the most of resources and recycled material while having the least amount of negative influence on the environment.</p> <p>Our study focused on the sustainability impact of the supply chain and supporting processes of Yunus Textile Mills on the environment. The paradigm of study was mix of quantitative and qualitative. In terms of data types, a mix of both qualitative and quantitative input was used. Qualitative data was collected through verbal observations at the manufacturing facility of Yunus Textile Mills and business publications whereas quantitative data was collected from interviews from YTM personnel. The research approach of our study was based on the accountability framework of sustainability, Triple Bottom Line (TBL) approach. Thematic analysis was carried out on the qualitative data to identify the common themes of sustainability at Yunus Textile Mills. On the other hand, quantitative data was analyzed and displayed through graphs to assess the impact of the current sustainable practices using various mathematical formulas.</p> <p>According to the findings from the analysis, it was found that the themes that were identified are essential for the sustainability of the value chain. And the practices that are implemented in Yunus Textile have a positive influence on the company’s brand image and on the environment as well. It was found that those practices encourage less usage of fresh water, recycling, less consumption of natural resources, and less emissions of greenhouse gases.</p> <p>From the analysis, it was concluded that these practices not only improve the sustainability of a value chain but also play an important role in the sustainability of the environment. Based on the analysis and conclusion, few upcoming trends in the supply chain sustainability are offered to Yunus Textile Mills which can help them to improve their sustainable practices.</p>
5	<p>Impact on Sustainability of Urban Regions or SDG-11 “Sustainable Cities and Communities”</p>	<p>The textile industry is located in urban areas of Karachi and near communities. Embracing sustainable practices will improve the impact of the supply chain on Earth's life and natural heritage. Adoption of the latest and sustainable technology and less usage of fresh resources will cause less environmental damage as well as ensure the sustainability of our future generations.</p>
6	<p>Competitive Advantage or Unique Selling</p>	
a	<p>Attainment of any SDG (e.g., How it is achieved and why it is necessary for the region)</p>	<p>SDG#12: Responsible Consumption & Production Which is responsible production and consumption addresses the sustainable production patterns in supply chain of Yunus Textile Mills. This SDG is significant because it promotes the sustainability in production patterns of any firm and to reduce its impact on people’s health and environment This SDG encourages conserving fresh water and other natural resources to ensure that the needs of future generations are not compromised.</p>



SUSTAINABLE URBAN REGIONS

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		<p>SDG#14: Life Below Water Refers to effective chemical and waste management to save life below water as many chemicals are used in production processes of textiles and dumped in ocean.</p> <p>SDG#15: Life on Land Emphasizes the negative effects that textiles have on the environment and nature of Karachi region.</p>
b	Environmental Aspect (e.g., carbon reduction, energy-efficient, etc.)	Sustainable raw materials, packaging, and sustainable production patterns play a major part in sustaining a supply chain and in reducing the overall negative impact of a supply chain. Investing in these will allow the textile industry to produce environmentally friendly products and manage their value chain in sustainable ways. Our study shows that the installation of solar panels, recycling treatment plants, and usage of organic raw materials results in improved efficiency and a reduction of greenhouse gas emissions as well as less carbon foot printing.
c	Process Improvement which Leads to Superior Product or Cost Reduction, Efficiency Improvement of the Whole Process (e.g., What is the issue is current process and what improvement you suggest)	The current technology being used in Yunus Textile Mills supports the usage of fewer chemicals and water. We proposed implementing a laser technology process that would significantly reduce the use of water and chemicals. This technology is time-efficient and works faster than the current technology. Secondly, the adoption of bio-plastic packaging will reduce the negative impact as production of this packaging replaces petroleum with sugarcane ethanol and recycling of this packaging is easier than the rest. Our study also recommended adopting practices that enhance the supply chain visibility of greenhouse emissions and carbon foot printing at each stage of the supply chain.
d	Expanding of Market share (e.g., how it expands and what is the problem with the current market)	The textile sector has a significant share in the Pakistan market. An already flourishing sector in the country's economy is likely to expand even further with the adoption of sustainable practices and take local business to international levels. Being the exporter of textile products, the Pakistani textile sector can further expand the business to capture international markets by embracing sustainable practices. Adoption of sustainability is important not only to serve the environment but also because consumers are becoming more conscious of using sustainable products.
7	Target Market (Industries, Groups, Individuals, Families, Students, etc) Please provide some detail about the end-user of the product, process, or service	Textile products are used by all income sectors. Yunus Textile Mills exports almost all of its products to the European and American markets. The target market is the end user or consumer since they use the end products. Those consumers are aware of the environmental sustainability that ultimately causes Yunus Textile to follow sustainable practices.
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