



## A STUDY ON FINANCIAL IMPLICATIONS OF SUSTAINABLE BUSINESS PRACTICES WITH RESPECT TO FASHION/APPAREL INDUSTRY

Ahana Datta

Student

BBA – Department of Management Studies  
Christ (Deemed to be University), Bengaluru, India

**Abstract:** The study finds the increasing acceptance towards social initiatives that imply the nature of conscious manufacturing attitude among garment exporters. The study confirms that the adoption of social initiatives in the form of social standards that have become the primary competitive factor while the quality and cost factors were thoughtfully acknowledged as important competitive factors. Despite the price-based competitive market, social initiatives have gained a huge margin over-commercialization. The study had selected H & M, Abercrombie & Fitch Co and Adidas to understand sustainable business practices. The study ensures that by adopting sustainable business practices, a business can earn profitability and their business performance can be enhanced.

**Index Terms** – Sustainability, Fast Fashion, Correlation, Regression, ANOVA, Abercrombie and Fitch, H&M, Adidas

### 1. INTRODUCTION

The rapid technological innovations and advancements have brought many kinds of products and services, but the requirements of the basic amenities like food, shelter, and clothing have continued since human existence. Two factors govern the financial implications of any line of business: one is its demand, and another is the geographical business policy. The table 1 illustrates both world and Indian population statistics of past, present, and future (projected). The world population in 64 years i.e., from 1955 to 2019, has grown by 64.05%, and in 31 years itself from 2019 to 2050 will be 20.77 %, and a similar trend is found in India population which is projected to grow by 16.64% by 2050 (IBEF, 2019). This population growth indicates that definitely, the demand for the cloths will be growing year after year.

**Table1:** Statistics of World and India Population [Source: <https://www.worldometers.info>]

Year	1955	2019	2050
World	2,773,019,936	7,713,468,100	9,735,033,990
India	409,880,595	1,366,417,754	1,639,176,033

Another driver of the business is the economic policy of the world and the nation. A critical milestone in the economic front the world has seen is globalization. The process of doing business in pre-globalization was producing locally and sell locally, during globalization is produce locally and sell globally, whereas in post-globalization it is produced anywhere and sell anywhere (Shahbaz et al., 2016). There were associated challenges and regulations in every era of the economy phases of the business, so there are associated challenges, threats and regulations on the business of apparel industry in the post globalization era.

In recent times, sustainability has become a contemporary concern among companies and sustainability concerned with ethical practice or responsible business practice (Gallotta et al., 2016). Ethical or responsible business practice means treating the stakeholders in a way considered acceptable in civilized societies. Within the current scenario of fairer globalization, society expects more from the business. The World Commission (2004) established by the International Labor Organization, emphasizes the need for the company to focus on people. In its report on the social dimension of globalization supports sustainable business practices at the local, national, regional, and global levels (Guthrie, 2015).

At this point, the sustainable business practices are those discretionary practices adopted and conducted by the company that supports social causes to improve community well-being and protect the environment. There are many reports which highlight the present situation

of our social environment, with each passing day the gap between the rich and poor widens and this effect can have catastrophic impacts on the world's Economic and Social state. (Brian, 2015).

Business can survive, perform, and earn profit only if society consumes its products. Eventually, the confidence of the customers will not end in ensuring quality products and services itself. Whereas, society expects such kind of business practices that business is to spend a part of the profit for the betterment of the society. This has resulted in the decision-making process of the business world become enriched by the environment as an important factor. Organizations are no longer able to carry out unethical business practices, such as polluting the environment without attracting criticism from stakeholders. The government agencies, the media, industry associations and other stakeholders play a vital role in pressuring those organizations to adopt proactive environmental and ethical management practices. As business depends on society for its existence, the business houses have to redefine their policies, objectives, and relevant operations in such a way that social and environmental goals are par with economic goals. A business of today has to operate in such a way as without compromising wellbeing of the future generation if it desires to sustain in the end. In addition, for that, business practices of an organization are to foresee issues connected to society, environment, and economy while meeting the requirements of customers. Business houses also firmly believe that adopting business practices towards sustainability would lead to the improved financial performance.

### 1.1 Industry Background

India has been amidst an incredible social, political and monetary changes as far back as changes were presented in different circles of movement. The nation has more noteworthy certainty to take on the challenge from created nations and has pulled in worldwide financial specialists in consistently expanding measure. The Textile business is perhaps the most seasoned industry in India. The division has made critical commitments regarding forex income and work and is one of the pillars of the economy. Indian Textile Industry involves a significant spot in the monetary existence of India. India has its roots set in the textile industry, among various nations India has a massive reserve of crude material and quality material manufacturing base. (Dixit and Lal, 2014).

Apparel industry includes the following entities, and it applies to all countries. As we know, India has been performing rather well in the Textile business. In the apparel business there are many individual parts that join together to form a whole. Each unit of work is an entity and these entities bind to form a efficient system. Most of the work involved in the field is the design, sewing and cutting of garments from the material provided. The industry can be divided into 2 parts on the basis of work they perform. On one side we have manufacturers who are contractors dealing with producing and supplying garments owned by other firms. Agents who deal with the purchase of foreign garments are sure to inspect each unit of material to the best of their quantifiable abilities to ensure that the products they buy are of pristine quality. They inspect the garment, negotiate with the various suppliers and match their products to industry standards. In addition, they adopt the new form of technology such as electronic forms, interactive TV, and on-line shopping services. The industry is very vast, there is no one route to acquiring or distributing the products. But with time the firms have realized that they need to mobilize their inventory and distribution channel to be on top of the market. They have done this by vertically integrating their value chain thereby reducing their dependency on other resources from suppliers and distributors. Even though this has helped the firms to some extent, the reality is that the segment is still fragmented and does not have a unified front. They consist of multiple small-scale enterprises who focus on spinning, weaving and finishing. The major part of the segment is unorganized. The unorganized sector consists of units for handlooms, power looms, knitting, clothing, khadi and carpet production units. (Khatoon, 2015).

### 1.2 Textile Industry and Apparel Industry In India

India is one of the world's fastest growing economies having its fair share of diverse markets. This has resulted in the textile and clothing industry becoming one of India's mainstays of its economy nationwide. Exports have been growing, as there is an increase in orders from global buyers accompanied by a surge of investments in the apparel sector of the country. A clear result can be seen by looking at India's exports worldwide featuring one of its largest contributions from textiles and apparels (Gambir and Sharma, 2015). The industry employs over 45 million people, it is a way of life for millions and the only source of income. This has greatly help shape our economy and encouraged small scale firms to develop their operations and be a competitor in the textile landscape.

Indian industries compete primarily on costs and this coupled with the favorable foreign exchange has helped some key sectors to perform extremely well for the economy such as IT and Textiles & Apparel industry sectors. In the global apparel market, as Bangladesh is losing apparel orders due to the absence of acceptable business practices that is safety problems, this situation has opened the doors for other Asian exporters mainly India to boost their sales to the U.S. and Europe (Ali and Habib, 2012). With the developing state of our country we can slowly envision a change, now India has a chance to play the field with its competitors like Italy, Germany, Bangladesh and China. As observed from published and widely available reports - India's overall textile exports during financial year 2017-18 stood at US\$ 39.2 billion in financial year 2018 and is expected to increase to US\$ 82.00 billion by 2021 from US\$ 31.65 billion in financial year 2019 (up to Jan 19) (Dhiman and Sharma, 2019).

### 1.3 Market Size

The Indian materials sector is unique, it started with simple handwoven garments and developed into a market where capital-intensive sophisticated mills are being used to create the products. The Indian textile industry is at an all-time rise, the sector is said to reach US\$ 250 billion by the end of 2019. The textile segment in India accounts for about 2% of the GDP of the country and employs over 45 million people. This sector has also helped propel the earnings generated by the export industry of India by 15% approximately. Raw cotton production in India is estimated to have reached approximately 36.1 million bales in financial year 2019 (IBEF, 2019).

### 1.4 Company Profile

To understand sustainable business practices, the study had selected H & M Hennes & Mauritz AB, Abercrombie & Fitch Co and Adidas

### **H & M Hennes & Mauritz AB**

H & M, Hennes & Mauritz AB is an organization that is based in Sweden which operates in the clothing industry. The company was founded in 1947, by Erling Persson. This brand is the very essence of Fast Fashion, the items we see on the runway will almost instantaneously appear on their website allowing buyers to purchase it. What makes H&M stand out is the speed with which the manufacture and distribute their products as well as the low price point of each item. This combination is rather favorable to consumers as they get to try newer trends without having to break the bank. The company offers a variety of products in a number of branded stores which are widely spread across 40 different markets all over the span. The company also features its offers online and has catalogue sales in Denmark, Norway, Germany, the Netherlands, Sweden, the Netherlands, USA and the United Kingdom, to name a few. With a strong and impactful online presence, the company also promotes and facilitates shopping online on its platform available in over 33 different countries.

### **Abercrombie & Fitch Co.**

Abercrombie has different avenues for selling their products. To succeed in changing times and fluctuating retail economies having varied modes of sale will cushion the fall in case of any downturn in sales. They have in store operations where they directly interact with the consumer buying their products. They also have options for wholesale, franchise and licensing. The company is divided into 2 factions, the first one is Abercrombie which includes Abercrombie and Fitch as well as Abercrombie Kid. The other faction is Hollister which includes Hollister and Gilly Hicks, the brands although separate do not differ significantly in terms of the clothing they offer. The items are trendy, relaxed and street. They offer clothes for men, women and children. They have a large range of clothing from intimates to winter clothes. As of 28th January, 2017, the company has operated around 709 stores in the United States of America and about 189 stores outside the same.

### **Adidas**

Adidas AG, founded and headquartered in Herzogenaurach, Germany, is a global company that designs and produces shoes, clothing and accessories. It is Europe's largest sportswear maker, and the world's second-largest after Nike. It is the holding company for the Adidas Group, consisting of the Reebok sportswear group, 8.33 per cent of the German Bayern Munich Football Club, and Runtastic, an Austrian fitness technology business. Adidas' 2018 sales stood at € 21.915bn. Adolf Dassler started the company in the house of his mother; his elder brother Rudolf followed him in 1924 under the name of Dassler Brothers Shoe Factory. Dassler helped develop spiked running shoes (spikes) for various sporting occurrences. He moved from a previous model of heavy metal spikes to the use of canvas and rubber to enhance the quality of spiked athletic footwear.

## **2. LITERATURE REVIEW**

### **2.1 Study on Supplier Optimization for Sustainability**

Jia et al. (2015) investigated the problem for optimal supplier selection for maintaining a sustainable material supply in the industry of fashion clothing. In their model named Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS), the authors ranked potential suppliers among the pool of suppliers for sustainable business operation and to overcome the problem of optimal supplier selection.

A similar study was carried out by Govindam et al. (2012), where the problem of identifying an effective approach for supplier selection is analyzed. The model considers factors belonging to aspects of the economic, social, and environmental types, and it is named as the Triple Bottom Line approach (TBL). The TBL provisions methodology to handle four issues, 1) how to select the best supplier among the available candidates, 2) how to continue working with a specific supplier group, 3) how to suggest that particular supplier group to improve some of their defects and 4) either to stop working with that specific supplier group or not.

A similar study was conducted by Shen (2014) by taking a case study of the H&M fast-fashion company. The company has constructed a sustainable supply chain by providing safety training, developing eco-materials, reducing generated emission due to carbon components in distribution, initiating the monitoring in process of manufacturing in a sustainable fashion and endorsing products that are eco-fashion and environmentally more inviting and friendly in nature. The highlights four findings based on the data analysis, 1) The company's managers responsible for sourcing may be more inclined to obtain suppliers in nations suffering with lesser magnitude of general well being of citizens, 2) the company's supply chain manager may set a higher level of supply stock in a nation having a greater degree of its citizen's satisfaction and wellbeing and (3) the Chief Executive Officer of the company may consider the degrees of human and economic wellbeing while launching platforms for their online shopping channel in a specific nations of their choosing.

Fashion industry companies are susceptible to the emerging challenges from sustainability point of view. In the work, inductive methodology was adopted based on which a cross-case analysis was performed. The study had formed a five-step road map towards a sustainable supply chain, 1) law compliance, 2) AS IS evaluation, 3) Internal sustainability improvement, 4) supply chain assessment and improvement, and 5) Supply chain and system development.

### **2.2 Study on Fast Fashion in the Fashion Industry**

Many a times, the fashion industry is criticized and accused of taking inadequate responsibility for its actions towards dealing with sustainability-related issues and overutilization of natural resources. There is also an environmental-related issue which creates a huge disposal/ degradation related problems (Desore and Narula, 2018). Apparently, in the fashion industry, new garments are thrown away, not particularly because they are worn out but because those garments were out of fashion as per the industry marketing strategies (Bhardwaj and Fairhurst, 2010).

Fast Fashion is a term used for low-cost clothes that imitates current luxury fashion clothing trends (Joy et al., 2012). The authors used the Zaltman Metaphor Elicitation Technique (ZMET) based on which the consumers were interviewed about their ideas of style and fashion. The finding exhibited that consumers were concerned about the social and environmental impact of their non-fashion purchasing decisions, but they exhibited relatively less guilt about their consumption of fashion.

A similar study was conducted by Jang et al. (2012), where the authors studied the social content version for sustainable development in the fast style commercial enterprise industry. The increase in clothes consumption and a decrease in the trend cycle resulted in middle-class buyers to opt for cheap and trendy clothes. In this work, a qualitative research approach was undertaken based on in-depth interviews from 166 students who were selected as a research subject. Based on the responses, the study highlights that the fashion business social content can focus on eco-friendly products, fair employment opportunities, customer service, changes in consumer perception, diversity of products, and ecosystem promotion. In the fast-fashion business, firms generally procure raw material from developing countries to take the advantage of low input costs (Turker and Altuntas, 2014).

Fast fashion clothing has changed the way consumers buy and dispose of the garments. Even though the clothing is readily available to all classes of consumers and emerged as a dominant business model, the risks associated with the fast-fashion clothing are relatively unknown to the consumers (Bick et al., 2018). In this work, the authors studied the role of consumers, policymaker, and industry personnel in ethical consumption and sustainable production in a reasonable manner.

Similar work was carried out by Birtwistle and Moore, 2007, where the authors explored the consumer's attitude towards consumption and disposal of fast fashion garments. Focus groups and individual interviews were the primary media to extract information from consumers. The findings conclude that consumers were unaware of the environmental and social repercussions of production followed by the disposal of fashion garments.

### 3. OBJECTIVE OF THE STUDY

The prime agenda of the proposed study is to perform an investigation to conceptualize different methods that can be adopted by fashion industries so that they can be sustainable but also remain profitable in the fast fashion business industry. The research work formulates the subsequent objectives:

- To understand the influence of current business practices versus performance
- To understand the components involved in influencing the business enterprises for adopting sustainability
- To understand the impact of quality, cost, wastage, environmental and social factors over business performance in the fashion industry
- To formulate effective suggestions and recommendations based on the outcomes of the study.

### 4. STATEMENT OF THE PROBLEM

Most of the companies choose not to be sustainable because of the higher costs it needs to incur in order to be more socially responsible. Due to this sudden increase in consumerism, companies are now producing more units of clothing just to keep the demand in check. This consumerism then leads to two significant problems in the fashion industry:

- People demand more clothes; hence, company's tries to cut costs in the product manufacture stage and skimp on the quality of the product, by doing this they can provide their consumers with products at a lower cost than their competitors. The process of creating these clothes and matching every trend on the runway is very rigorous. The companies end up generating more waste because of the sheer quantity of mass production.
- As the quality of the clothing is not good, the product will barely last for a few washes and end up in the trash, which once again ends up in landfills and are not degradable. Therefore, the problem statement of the study is "to deliberate and analyze the methods defining the sustainability of fast fashion industries."

### 5. SCOPE OF THE STUDY

The study is conducted at Bangalore, India, where the fashion companies were selected for the study. The study does not exceed geographical bounds and its only purpose is to help enlighten organizations about the steps they can take to improve their sustainable conditions.

### 6. VARIABLES AND OPERATIONAL DEFINITIONS

**Supply chain management (SCM):** In simple terms Supply Chain Managements describes the movement of the raw materials along the process of manufacturing to the point of consumption. So, in SCM, raw materials get converted to work in progress inventory, then this gets converted to finished goods and after refinement the product is ready for consumption by the public. It is so much more than just the flow of materials because without proper management there would be no coordination or communication among the different members who play a key role in the process of production and distribution. It also consists of coordination and collaboration with channel partners, which can be suppliers, intermediaries, external providers, or clients. Supply chain management thus integrates deliver and demand control inside and throughout companies.

**Supply chain optimization (SCO):** It is the utilization of procedures and tools to guarantee the ideal activity of an assembling and dissemination inventory network. "SCO tends to the general inventory network issue of conveying items to clients at the most reduced total cost and highest profit" (Bhinge et al., 2015). This incorporates exchanging off the expenses of stock, transportation, conveying and

assembling. What's more, upgrading capacity and transportation costs by methods for item/bundle size is one of the simplest and most savvy introductory usages accessible to set aside cash in item conveyance.

**E-Commerce:** Internet business is directing the increasing popularity of third-party logistics (3PL) and last-mile delivery suppliers. Such sellers give vigorously heavily capital- and labor-intensive services for example, warehousing, and transportation, stock administration, cargo sending, cross-docking and bundling. Inside the internet business space particularly, it turns out to be progressively cost-effective for players to make use of a 3PL seller to give start to finish conveyance answers for everything from nourishment, hardware, magnificence items, marked attire and footwear – at less expensive and less expensive rates (Mitra and Bagchi, 2008).

**Operational Efficiency:** Organizations are always facing pressure to deal with their main concerns over the business. “Sourcing and procurement activities may be streamlined across different regions with better integration” (Trojanowska et al., 2018). This, in turn, gives organizations expanded arranging force and better economies of scale to drive operational proficiency

**Quality:** The word quality implies the quality of raw material, work-in-process, and final product. As per ISO 9001:2005, the term quality is defined —as the degree to which a set of inherent characteristics that fulfils the requirements of the customer (Wee and Wu, 2009). It integrates with various activities such as planning, marketing, purchasing, production, inspections and support services inclusive of leadership processes covering management responsibility. The organization can become competitive and increase its market share by giving primary importance to quality, which increases productivity.

**Cost:** Three parameters decide the profit margin of the apparel manufacturing units: selling price, raw material cost, and conversion cost (Mehrhoj and Pasek, 2016). The suppliers determine the raw material cost and are always fluctuating onto which the apparel cluster does not have any hold. The apparel-manufacturing units face a scenario of rising input costs, which affects their profitability position as they continue to cater to the traditional low-end market (Cao et al., 2008). The selling price is primarily determined by the market and in the case of export business; the international market condition decides it for the exporters. The organizations have become familiar with the difficulties at various stages of the supply chain, and as a result, they do the effective planning and follow-up. However, due to the complexity of supply chain procedures, at times, they are incapable to outsource the processing in time, and the organizations have to resort to air shipments at their cost to keep the delivery schedule. Because of the unforeseen circumstances, which are common in the supply chain, they have to pay more attention to post manufacturing activities.

**Waste:** Waste minimization is the key to earning a profit and remains competitive in the global market (Islam et al., 2013). It is best achieved by minimizing the generation of wastes at the source. In the apparel cluster, waste minimization is neither complicated nor too technical, and the management with commitment takes necessary steps to bring operators involvement for minimizing the waste (Tahiduzzaman et al., 2018).

**Environmental:** Earlier in business, the common practice is to achieve higher profit through reputation and lower risks that come tightly together without considering effective adoption of environmental and social issues. The proclivity of taking on environmental-related business practices is stemmed from the intervention of judicial authority. The environmental policies cover those business practices such as effluent treatment, energy conservation, usage of eco-friendly materials, minimizing the effluent discharge, waste minimization in all the processes, recycling of waste, and preservation of resources and prevention of pollution (Alkaya and Demirer, 2014).

**Social:** The global business houses regarded the wealth maximization as the main aim of firms without attending to the environmental and social issues before the 1980s. Later in market economies, they need to recognize the concept of sustainable development. Business organizations have sovereignty to choose the product and the market. Safety of workers and labor rights has become major concerns for global apparel buyers putting many clothing suppliers from various countries such as Bangladesh in a crisis. The implementation of social practice provides substantial freedom, independence, and discretion to the individual in scheduling work and in determining the procedures to be used in carrying out the work (Hamm, 2012). The global apparel brands have favored the adoption of CoC and other internationally accepted social standards to prohibit the usage of child labor and promote labor welfare schemes. The apparel cluster can highlight that implementation of Social Standards/Initiatives/codes in an implicit organization results in the ethical practices, work autonomy, gender equality and labor welfare. Moreover, many studies in this regard found out that implementation of social standards can increase production efficiency as well as marketing opportunities worldwide (Nurhayati et al., 2015).

## 7. MODES OF DATA COLLECTION

In the proposed study, data is collected through secondary sources. The secondary data will consist of various published reports, journals and articles which assist in understanding the study. The secondary data begins with the review of existing literatures which are existing journals and articles, textbooks, online sources such as catalogues and websites.

## 8. HYPOTHESIS

Hypothesis construction is the most important part of the study, especially, when the study is carried out using statistical analysis. Following are the hypothesis considered for the study:

- H0: Adoption of Sustainable Practices by H&M does not increase profitability in business
- H1: Adoption of Sustainable Practices by H&M does increase profitability in business
- H0: Adoption of Sustainable Practices by Abercrombie & Fitch Company does not increase profitability in business
- H2: Adoption of Sustainable Practices by Abercrombie & Fitch Company does increase profitability in business
- H0: Adoption of Sustainable Practices by Adidas does not increase profitability in business

- H3: Adoption of Sustainable Practices by Adidas does increase profitability in business

## 9. LIMITATIONS OF THE STUDY

Though the work has followed and maintained essential and scientific principles, it is not free from certain limitations. A few limitations of the study are listed below:

- The study had selected few fast fashion companies randomly to carry out the study.
- The availability of time at the disposal of researcher has also acted as limitation in making an exhaustive study for a wide geographical area.

## 10. ANALYSIS AND INTERPRETATION

### Sustainability Strategy of H&M Hennes & Mauritz AB

H&M has been a pioneer in the field of sustainable fast fashion. Their vision is to change the world and help reduce the waste generated by buyers of their products. The concept is not just reusing but also renewing, H&M accepts old clothes as donation and using the fabric from the waste they create new products. They believe that clothes should be distributed in a circular way, a person purchases it, wears it and once he/she is bored, the product can be recycled and used to create something completely new. In order to do they have used their massive size and brand name along with experts in the field of sustainability to build a strategy to help them achieve a clean green firm. Their goal is to be fair and equitable.

**Risks and Opportunities:** H&M is attempting at being more aware of their societal and environmental impacts, associated with this there are many risks which come into the picture. Their goal is to become a market leader in the sustainable fashion segment, due to their large size and resources they are capable of making a real change in the market. The main risks that they face currently are the depletion of natural resources and constructing an ethical work force. As most of their clothing is made in developing countries, the wages they pay are often unfair for the work performed. Due to this they are trying to develop better working conditions in the factories and ensuring fair and equitable pay for the jobs done. A few other factors that pose as a risk are the climate change and its consequences, the corruption within the organization and in their distribution chain, the political tension in the country and societal instability in the market.

**Environmental Impacts:** Raw materials play a massive role in the fashion materials, depending on the availability of these resources companies decide whether extending their services to that part of the world will be financially fruitful to their organization. The main resources are currently cotton or synthetic fibers which are gaining more popularity due to their ease of production and the fact that they are less affected by the wear and tear of the products, which means that these fibers help extend the life of the product. Due to increasing demand created by the consumerism ideology of our market these resources are soon getting depleted. This is therefore encouraging companies to create a give and take relationship with the resources, they are using innovative techniques, efficient operations and other business ideas to help with restricting the use of the materials and making use of the materials they have to the best of their abilities.

This is the reason how H&M decided to revamp their system in such a way that they create as well as recreate their products and ensure that the waste generated is lowered, this is not only for the organization as a whole but an appeal to buyers to recycle their clothing as well by incentivizing them using discounts. This overall helps to bring down the waste generated. In order to do so they have adopted 5 key processes: design, material type, the process of production (supply chain management), improving the longevity of the products including giving buyers the opportunity to reuse or recycle the clothing. They have an upcycle ideology which means that they encourage people to donate the clothes they no longer wish to keep back to H&M then using this waste they create new clothes.

**Table 2: Environmental Practices of H&M**

KPI	Goal	2018	2017	2016
% recycled or other sustainably sourced materials in total material use (commercial goods and packaging)	100% by 2030	57	35	26
% cotton from more sustainable resources (certified organic, recycled or Better Cotton)	100% by 2020	95	59	43
Tonnes of garments collected through garment collecting initiative	25,000 t per year by 2020	20,649	17,771	15,888
% of renewable electricity in own operations	100%	96	95	96
% change in CO2 emissions from own operations compared with previous year	Climate positive value chain by 2040	-11	-21	-47
Tonnes of CO2 emissions from own operations	Climate positive value chain by 2040	56,977	63,690	80,541
% change in electricity intensity (kwh/m2 per opening hour in store compared with 2016)	-25% by 2030	-8.2	-2.7	n/a

To date one of the most difficult factors is to overcome climate change and its effects. As climate change causes certain changes in the resources and their availability it is an arduous task to create solutions and plan of actions to protect the organizations from consequences of climate change.

Social Impacts: They also actively ensure that they treat their employees with respect and have made strides in providing their employees with benefits beyond the basic pay. H&M follows the Human rights law and work in tune with the policies, they also not only incorporate these in the organization but also in their supply and distribution chain. The company works on ensuring that jobs are of good value and that the employees have a chance of moving up the corporate ladder, they promote inclusivity, diversity and gender equality.

**Table 3:** Social Practices of H&M

KPI	Goal	2018	2017	2016
% of employees agreeing with the statement "I feel comfortable being myself at work" and % of employees agreeing with the statement "I am treated with respect and dignity"	Annual increase	83, 81	n/a	n/a
Number of supplier factories implementing improved wage management systems (% of production volume covered)	50% of production volume by 2018	500 (67%)	227 (40%)	140 (29%)
Number of supplier factories that have implemented democratically elected worker representation (% of production volume covered)	50% of production volume by 2018	594 (73%)	458 (52%)	290 (42%)
% of business partners regarding the H&M group as a fair business partner	90% by 2018	93	94	83

The H&M organization has advanced a fair dwelling salary strategy, i.e. operating to consistently boom salaries for garment employees with the aid of getting manufacturer factories to introduce better wage control systems, partnering with policymakers to create the important criminal frameworks and taking part with other manufacturers and partners to expand a common technique to accountable shopping practices. The intention set in 2013 changed into for manufacturer factories to have added greater salary management systems by means of 2018 covering 50 percentage of the manufacturing volume. The goal was not only achieved but surpassed. The H&M group remains dedicated to its vision of accomplishing fair residing wages for all textile workers and will continue to work with its dealer factories to build further.

In 2020, the organization is striving for 100 per cent organic cotton in the assortments of its products. This hit 95% in 2018, an improvement from 59% in 2017. This is a **critical** step **toward** our overall **objective** of **materials**: to use **only** recycled or other **materials that** are sourced sustainably **by way of** 2030. In 2018, the **percentage** of renewable **substances** rose from 35% cent in 2017 to 57%.

#### Sustainability Strategy of Abercrombie & Fitch Company (ANF)

High quality standards are important for the company's identity and its network of independent manufacturers and suppliers are expected to not only achieve but also maintain and raise these standards.

**Table 4:** Sustainability Practices of Abercrombie and Fitch

Social & Environmental Sustainability	
Gallons of water saved during production of merchandise	22.5M
Bottles saved from landfills through sustainable product	653.6K
Third-party workers and associates involved in training programs	7.3K

The company has set in high supplier quality standards to ensure the premium quality of fabrics and other materials used in its products. Both home office and field employees participate in monitoring suppliers' compliance with the Company's product quality standards. As production begins, all factories, including subcontractors of the factories, undergo a quality assurance assessment to ensure they meet Company standards.

#### Sustainability Practices by Adidas

Adidas is a brand that never publicly advertised their sustainability goals, they have been silently working for the last 20 years and making small changes to their system in hopes to reduce their negative impact on the planet. With the ideology to make a change the partnered up with Parley for the Oceans, a network of freethinkers and creators who have come together from various industries to raise awareness about the increasing pollution in oceans.

### 10.1 Hypothesis Testing

#### H&M

H0: Adoption of Sustainable Practices by H&M does not increase profitability in business

H1: Adoption of Sustainable Practices by H&M does increase profitability in business

**Table 5:** Sustainability Practices vs Profitability of H&M

Sustainability Practices	Numbers	Business Performance	Numbers in U.S. dollars
Co2 Reduction	56978 metric tons	Gross Sales	23232.37 million
Waste Reduction (Recycle)	20,649 tonnes	Global Operating Profit	1.7 billion

**Table 6:** Correlation Analysis

		H&M_Sustainability	H&M_Profitability
H&M_Sustainability	Pearson Correlation	1	.814
	Sig. (2-tailed)		.000
H&M_Profitability	Pearson Correlation	.924	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

The correlation analysis table highlights the correlation calculation for hypothesis where correlation is carried out considering the original sources of variables. From all the above statistical calculation, it is explored that adoption of sustainable business practices increases profitability in business as  $p > .000$  and  $\beta = .814$  (81%). Owing to the positive value of  $\beta$ , the outcome statistically shows positive significance between Adoption of Sustainable Practices and increase in profitability in business. This proves the acceptance of H1 that states Adoption of Sustainable Practices by H&M increases profitability in business. Hence we Accept the alternative Hypothesis H1.

#### Abercrombie and Fitch Co.

H0: Adoption of Sustainable Practices by Abercrombie & Fitch Company does not increase profitability in business

H2: Adoption of Sustainable Practices by Abercrombie & Fitch Company does increase profitability in business

**Table 7:** Sustainability Practices vs Profitability of Abercrombie and Fitch

Sustainability Practices	Value	Business Performance	Value
Co2 Reduction	22%	Gross Sales	20%
Water Savings	30%	Others	20%
Waste Reduction (Recycle)	48%	Global Operating Profit	60%



**Table 8:** Correlation Analysis

		ANF_Sustainability	ANF_Profitability
ANF_Sustainability	Pearson Correlation	1	.760**
	Sig. (2-tailed)		.000
ANF_Profitability	Pearson Correlation	.760**	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 11 highlights the correlation calculation for hypothesis where correlation is carried out considering the original sources of variables. From all the above statistical calculation, it is explored that adoption of sustainable business practices increases profitability in business as  $p > .000$  and  $\beta = .700$  (70%). Owing to the positive value of  $\beta$ , the outcome statistically shows positive significance between Adoption of Sustainable Practices and increase in profitability in business. This proves the acceptance of second null hypothesis H2 that states Adoption of Sustainable Practices by Abercrombie & Fitch increases profitability in business.

**Table 9:** Model Summary

Model Summary					
Model	R	R Square	Adjusted R Square	Std. An error of the Estimate	
1	.760 <sup>a</sup>	.577	.573	.522	
a. Predictors: (Constant), ANF_Profitability					

According to this result, the value was 57.7% and independent variable accounts for 57.7% change independent variable. So we can now understand the concept of analysis better.

**Table 10:** ANOVA Table

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.533	.158		3.373	.001
	Abercrombie_Profitability	1.233	.107	.760	11.568	.000

a. Dependent Variable: ANF\_Sustainability

According to the result, this value indicates that all the values are significant and accurate and null hypothesis rejected.

**Table 11:** Coefficients Table

Sustainability Practices	Value	Business Performance	Value
Co2 Reduction	24%	Sales Growth	30%
Water Savings	31%	Individual Criteria	40%
Waste Reduction (Recycle)	49%	Global Operating Profit	60%

According to this result, the value of standardized coefficients was 76%. It indicates that the dependent variable is highly dependent on the independent variable. Hence we reject the null hypothesis and accept the H2 hypothesis.

### Adidas

H0: Adoption of Sustainable Practices by Adidas does not increase profitability in business

H3: Adoption of Sustainable Practices by Adidas does increase profitability in business

According to this report of 2018, Adidas reduced carbon dioxide gas by 24%, saved water by 31% and reduced usage of water by 45% during their production period. According to the financial report, the amount of growth of sale was 30%, the amount of operating margin has increased by 30% and other financial activities have increased by 20%. It means that after reduced the usage of environmental elements, this company can improve their profit margin.

**Table 12:** Sustainability Practices vs Profitability of Adidas

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.507	1	36.507	133.827	.000 <sup>b</sup>
	Residual	26.733	98	.273		
	Total	63.240	99			

a. Dependent Variable: ANF\_Sustainability

**Table 13:** Correlation Analysis

		Adidas_Sustainability	Adidas_Profitability
Adidas_Sustainability	Pearson Correlation	1	.879**
	Sig. (2-tailed)		.000
	N	100	100
Adidas_Profitability	Pearson Correlation	.879**	1
	Sig. (2-tailed)	.000	
	N	100	100
**. Correlation is significant at the 0.01 level (2-tailed).			

According to this result, the value of the Pearson correlation was 87.9%. It was more than 50% and it indicates the positive correlation between environmental concern and profitability of this business.

**Table 14:** ANOVA Table

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.471	1	93.471	332.745	.000 <sup>b</sup>
	Residual	27.529	98	.281		
	Total	121.000	99			
a. Dependent Variable: Adidas_Profitability						
b. Predictors: (Constant), Adidas_Sustainability						

**Table 15:** Summary Table

Model Summary				
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.879 <sup>a</sup>	.772	.770	.530
a. Predictors: (Constant), Adidas_environment				

According to this result, the value was 77.2% and independent variable accounts for 77.2% change independent variable. According to Li (2017), in this report, the independent variable indicates the environmentally conscious and dependent variable indicates the profitability of the business. In this report, it proved that if environmental conscious is increase than the profitability of the business is also increased.

**Table 5:** Coefficients Table

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.359	.155		-2.312	.023
	Adidas_environment	1.203	.066	.879	18.241	.000
a. Dependent Variable: Adidas_profitability						

According to the result, this value indicates that all the values are significant and accurate and null hypothesis rejected.

According to this result, the value of standardized coefficients was 87.9%. It indicates that the dependent variable is highly dependent on the independent variable. Therefore we reject the null hypothesis and accept the H3 hypothesis.

According to these reports, it is proved that Adidas and Abercrombie both earn enough profit to grow their market in the future. However, according to these reports, Adidas is the more environmentally conscious company as compared to the Abercrombie.

From the above cases we can clearly see that the profitability of a company is in some way related to the sustainability of the company. Although there is no direct correlation the truth is that when companies are taking steps to be more conscious of their impact on the environment and the society, the market gets a positive view of the firm. It means that the main goal of the company isn't just to turn a profit but make the life of the people in the society better as well. This helps increase the goodwill of the firm and gives them a better brand name which in turn helps with the sales.

## 11. LEARNINGS FROM ADIDAS

In today's world, all companies will have priority of saving the future for the next generation. However, some companies are working for this, such as Adidas, Abercrombie and Fitch and H&M. These three companies are trying to inculcate the nature of saving water and other resources. These companies claimed that they reduce the usage of water, chemical and other dangerous material that can affect nature. It is also claimed that they have reduced the plastic content during their production. They also claimed that during their production process, there is a reduced production of carbon dioxide. Increasing carbon dioxide in the air can affect human health. However, in some cases, Abercrombie needs to learn from Adidas and H&M about sustainable practices during their production.

- According to the result of 2018, Abercrombie saved 22.5 million gallons of water during its production process. It is a good step for the company, however not enough. According to the result, Adidas saved 100 million gallons of water during their production process. Abercrombie needs to save more water during their production process as Adidas.

- According to the result of 2018, Abercrombie claimed that they saved 653.6k plastic bottles during their production process. However, Adidas does not use any plastic materials during its production process. Plastic can have dire effects on nature. Therefore, Abercrombie needs to reduce materials that are plastic based during their production process.
- For dyeing fabric, Adidas is using a new technology, named Dry-Dye technology. According to Power (2018), using this technology, this company can make fabric without using water and air. The CEO of Adidas claimed that after using this technology, they do not use any drop of water and do not produce carbon dioxide during the manufacture of such fabrics. Therefore, Abercrombie needs to use this type of technology during their production process to save more water and air.
- Using of Dry-Dye technology they can decrease 50% production of harmful chemicals, 50% energy during their production process. Abercrombie needs to use this technology during its production process for saving more energy and harmful chemicals.
- According to the report of 2014 of Adidas, they have saved 100 million gallons of water during their production process. However, according to the report of 2018 of Abercrombie, they have saved 22.5 million gallons of water. Therefore, Abercrombie needs to save more water and needs to use some modern technologies that can help to save more water and air.
- Adidas claimed that they are using eco-friendly materials in their production process. Therefore, after using the products, this is not harmful to the environment. Abercrombie needs to follow this process because they are using plastic material and many other non-eco-friendly materials during their production process.
- According to the report, the management of Adidas was the partnership of certain social working companies and have donated money for saving and preserving the environment. Abercrombie needs to follow suit and learn from Adidas. Though it is expensive, it can increase the popularity of this company and obviously it is a step for protecting the environment.
- Adidas claimed that they are using non-animal product during their production process. Even for fabric, they use technical yarn fiber for making the materials. They also claimed that for leather, they are using some technical element instead of animal hide. This is a very good step for saving animals for nature.
- Adidas claimed that they are using BCI certified cotton that is more comfortable and eco-friendlier. Abercrombie needs to use these types of cotton during their production period.
- In 2008, Adidas was certified as the green company for usage of eco-friendly products during their production. Abercrombie needs to take some initiative to save the environment.

## 12. SUMMARY OF FINDINGS

According to the findings of the study, it is proved that H&M group and Adidas is more environmentally conscious compared to Abercrombie & Fitch. In the apparel cluster, sustainability factors influenced the business performance. The following are the sustainability factors derived from the study:

**Quality:** Production planning at various stages right from sourcing of raw material and is important to enforce that only the best quality of material with optimized manufacturing cost and in time for the production schedules. Supplier integration could reduce material cost, increase quality, and ensure efficient product development and manufacturing cost while improving functionality.

**Cost:** Production planning at various stages right from sourcing of raw material and collaboration and an understanding with suppliers is imperative to validate and guarantee the high quality of material with optimized manufacturing cost. Advantages of supplier participation and supplier integration can reduce material cost, increase quality, and ensure effective product development. Thus, the firms in the collaborated supply chains reduce cost. This leads to competitive advantage and better business turnover.

**Wastage:** The key elements of waste management cover reducing dyeing and finishing waste, less consumption of raw material, reduction in reworking level of apparels and reduction in ultimate rejection level of fully finished apparel. Business enterprises with the effective quality management system that ensures adoption of process approach in a firm, focuses on process management and measurements associated with the process-based allocation of resources and certainly mitigate the wastage. The process approach like business process orientation concentrates on the efficient transformation of input into the output to meet customer requirements. Thus, the process approach contributes to reducing the wastage and assists in improving all forms of performance of an organization in terms of financial and non-financial in nature.

**Environment:** The environmental programs lead to reduce company's environmental impact such as less usage of electricity, water and resources, using of eco-friendly textiles, reduction of process waste, noise generation, emissions and effluent release, recycling of waste, treatment of effluent, maintenance of vehicle, equipment's and machines. Environmental management practices should be practiced which will cater to ecological sustainability and maintenance, create a strong competitive edge and redefine to improve relationships with the socio-economic environment.

**Social:** The formal term given to the social aspect in this case is the "high and low" road growth path to industrial restructuring. The first part of the statement refers to a work environment where there is efficiency, innovation and the welfare of the workers are considered to be a priority. They are provided with fair wages for their work and are provided with safe working conditions. The "low" refers to work environments where employees are more of an afterthought and the market is very competitive due to which firms keep cutting costs and lowering the salary of workers. Here the employees are undervalued and underpaid. In most countries there is usually a balance between the high and the low.

### 13. RECOMMENDATIONS AND CONCLUSION

With the advent of globalization, international markets have accelerated to unprecedented growth. Meanwhile, sustainability is gaining momentum globally, and the consumers began demanding for ethical sourcing with environmental concern apart from the product price. Objectives of this work reflect sustainability and growth. Sustainability connected to sustainable practices, which incorporate environment and social issues apart from economic. In the recent past, the organizations primarily focused on the profits to support the continuing existence of the enterprise and to maintain economic viability as a producer of goods and services. Whereas, the changing orientation of global apparel consumers towards ethical sourcing has its impact on apparel manufacturing. The global apparel consumers are concerned about the social and ethical part of the business.

#### Sustainable Business Practices

Sustainability has to be an integral part of the way the organization operates. The top management regarded the sustainable development to economic growth collectively with the protection of the environment and social accountability. It is a management approach to maintain a balance between the individual needs to improve lifestyles and to feel of well-being on the one hand and preserving natural resources, on which future generations depend on each other. Most of the earlier studies focus on economic metrics, which measure the financial performance of the firm, instead of the mitigation of sustainability pressure and the global competitiveness of the apparel cluster. The study provides an assessment to understand the sustainable business practices and to enhance business performance. The significance level of social and business performance and the significance level of environment and business performance were studied, and the result shows that both are significant. The global apparel buyers prefer to avoid sweatshop as well as want a cleaner environment. This pressurizes the organizations to weigh employee benefits and protect the environment in the light of the vigorous competition for sustainability around the world. Consequently, the business organizations had to reformulate its objectives in such a way that social and environmental goals are also put on par with economic goals.

Accordingly, the bottom line of international business is not limited to profit alone, but it has to cover all the social and environmental issues. Virtually there are many quality management systems available such as ISO 9001 for economic improvement comprising the domains of quality, cost, and waste, ISO 14001, Gotz, and Oeko-Tex 100 for environment protection and OHSAS 18001, SA 8000, and BSCI for securing higher living standard for workers. By implementing the quality and social management systems according to the need of the organizations, they can elevate themselves in eliminating sweatshop and ensuring ethical manufacturing that makes them highly competitive. The sustained business practices covering quality, cost, waste, environment and social are the keys to survival.

#### Recommendations

The study recommends the following points:

- Environmental sustainability requires that consumers need a purer environment and are inclined to pay for it, probable by induction of premium-priced goods in the market, modified individual lifestyles, or even governmental intervention. Further study is required to investigate perception gap between top management and workers on social initiatives.
- Future study is required to understand the problems faced by the exporters in attempting various requirements of the Social Standards effectively.

### 14. REFERENCES

- Shahbaz, M., Mallick, H., Mahalik, M. K., & Loganathan, N. (2015). Does globalization impede environmental quality in India?. *Ecological Indicators*, 52, 379-393.
- Gallotta, B., Garza-Reyes, J. A., Anosike, A., Lim, M. K., & Roberts, I. (2016). A conceptual framework for the implementation of sustainability business processes.
- Guthrie, J. (2015). *The International Labor Organization and the Social Politics of Development, 1938-1969* (Doctoral dissertation).
- Dixit, P., & Lal, R. C. (2019). A Critical Analysis of Indian Textile Industry: An Insight Into Inclusive Growth And Social Responsibility. *Russian Journal of Agricultural and Socio-Economic Sciences*, 4(88), 53-61.
- Gambhir, D., & Sharma, S. (2015). Productivity in Indian manufacturing: evidence from the textile industry. *Journal of Economic and Administrative Sciences*, 31(2), 71-85.
- Jia, P., Govindan, K., Choi, T. M., & Rajendran, S. (2015). Supplier selection problems in fashion business operations with sustainability considerations. *Sustainability*, 7(2), 1603-1619.
- Govindan, K., Khodaverdi, R., & Jafarian, A. (2013). A fuzzy multi criteria approach for measuring sustainability performance of a supplier based on triple bottom line approach. *Journal of Cleaner production*, 47, 345-354.
- Shen, B. (2014). Sustainable Fashion Supply Chain: Lessons from H&M. *Sustainability*, 6(9), 6236–6249.
- Moretto, A., Macchion, L., Lion, A., Caniato, F., Danese, P., & Vinelli, A. (2018). Designing a roadmap towards a sustainable supply chain: A focus on the fashion industry. *Journal of Cleaner Production*, 193, 169–184. doi:10.1016/j.jclepro.2018.04.273
- Desore, A., & Narula, S. A. (2018). An overview on corporate response towards sustainability issues in textile industry. *Environment, development and sustainability*, 20(4), 1439-1459.
- Jang, J., Ko, E., Chun, E., & Lee, E. (2012). A Study of a Social Content Model for Sustainable Development in the Fast Fashion Industry. *Journal of Global Fashion Marketing*, 3(2), 61–70. doi:10.1080/20932685.2012.10593108

Turker, D., &Altuntas, C. (2014). Sustainable supply chain management in the fast fashion industry: An analysis of corporate reports. *European Management Journal*, 32(5), 837–849. doi:10.1016/j.emj.2014.02.001

Bhinge, R., Moser, R., Moser, E., Lanza, G., &Dornfeld, D. (2015). Sustainability optimization for global supply chain decision-making. *Procedia CIRP*, 26, 323-328.

Trojanowska, J., Kolinski, A., Galusik, D., Varela, M. L., & Machado, J. (2018). A methodology of improvement of manufacturing productivity through increasing operational efficiency of the production process. In *Advances in Manufacturing* (pp. 23-32). Springer, Cham.

Mehrjoo, M., &Pasek, Z. J. (2016). Risk assessment for the supply chain of fast fashion apparel industry: a system dynamics framework. *International Journal of Production Research*, 54(1), 28-48.

Tahiduzzaman, M., Rahman, M., Dey, S. K., &Kapuria, T. K. (2018). Minimization of Sewing Defects of an Apparel Industry in Bangladesh with 5S & PDCA. *American Journal of Industrial Engineering*, 5(1), 17-24.

Alkaya, E., &Demirer, G. N. (2014). Sustainable textile production: a case study from a woven fabric manufacturing mill in Turkey. *Journal of Cleaner Production*, 65, 595-603.

