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## **The Effect of Sustainable Production on Consumer Buying Behaviour in Apparel Industry**

A dissertation submitted in partial fulfilment of the requirements of the Royal Docks  
School of Business and Law, University of East London for the degree of **MSc**  
**International Business Management**

**September 2019**

## **Word Count 15311**

I declare that no material contained in the thesis has been used in any other submission for an academic award

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# **The Effect of Sustainable Production on Consumer Buying Behaviour in Apparel Industry**

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## **Abstract**

Sustainable production consists of producing things that are supportive towards the environment and does not cause global warming or green depletion. Moreover, sustainable products are those that can be recycled and are bio-degradable. Most of the companies are using organic products in modern days due to the increase in customers demand environmentally sustainable products. It is due to the media exposure about global warming, green depletion. It is also seen that animal welfare rights, including the rising concerns of protecting endangered species, have reduced demands for leather jackets, or shoes made from animal skin.

The methods for researching the impact of sustainable production upon buying behaviour of consumers have been determined by maintaining the principle of research onion. Research has been initiated using the inductive approach to analyse multiple impacts of sustainable production upon consumer behaviour. The approach of exploratory research design has been considered to accelerate the research variables of sustainable production and consumer behaviour. Qualitative and quantitative information regarding sustainable production and its corresponding consumer behaviour has been collected from authentic secondary sources like journals and books.

The research also concludes that the firms such as Solly and Zodiac, are using the methods of sustainable production by increasing organic products and paper packaging for attracting modern customers. It also gives future scope where more than one industry can be compared, or a specific firm can be chosen for the sake of development.

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# **1 Introduction**

## **1.1 Introduction**

The increasing issue of natural resources depletion has prompted companies and policymakers to think towards sustainable production to maintain ecological balance (Clayton & Radcliffe, 2018). The greenhouse gas and global warming issues have affected the company production along with selling pattern regarding satisfying trending consumers need. According to Neubauer & Lank, (2016), consumer rely more on sustainable and eco-friendly products by making them a part of corporate citizenship in which all consumers are associated to maintain environment concern issues. The change in consumer buying behaviour towards sustainable products have different influence industries to enhance their production output by ensuring eco-friendly maintenance. Industries like apparel, accessories, clothing and fashion have been influenced by trending consumer buying behaviour towards eco-friendly goods.

By analysing the environmental concern, apparel industries have focused on sustainable production in which organic clothing with zero chemicals and no animal skins are used to manufacture jackets or attire (Biswas & Roy, 2015). This shift the consumer buying practises towards sustainable items, including clothes that are made up of recyclable materials and organic cotton to maintain ecological balance for sustainable growth. According to Yadav & Pathak, (2016), latex and leather industries have suffered a significant fall due to sustainable production in clothing industries as companies avoid animal's related products for developing eco-friendly environment. This influences consumer buying decision to buy products or accessories made up of organic and eco-friendly materials by minimising their rotational purchasing numbers.

This study presents the background of study by emphasising on the trending practises towards sustainable production that drives consumers to buy goods by analysing its negative impact in terms of maintaining an eco-friendly environment. The rationale or significance section of study would

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demonstrate the importance of consumer shift towards sustainable as well as greener products buying that inhibits change in the market. In the later part, research questions, along with research objectives, have been presented that assist in enhancing quality of information extraction throughout the study.

## 1.2 Background of the Study

The sustainable production approach has influences companies to using recycled and organic materials in manufacturing units to minimise operations cost associated with buying fresh raw materials from market (Crane, Matten, Glozer, & Spence, 2019). The significant fall of leather industry has influenced the sales performance of clothing industry to use organic chemicals and textiles rather than relying on animal wools. This change in clothing production industry has affected consumer buying decision as they are willing to pay more amounts for green products or accessories in terms of maintaining an eco-friendly environment. The sudden fall of leather goods in China and India due to animal protection act drives clothing companies like Solly and Zodiac to use artificial leather along with organic cotton to make attire including boots (Shen, Wang, Lo, & Shum, 2012). Following this consumer buying behaviour has also changed with market demand as they prefer buying hygienic and organic products to minimise environmental concern regarding global warming and natural resources depletion. Valaei & Nikhashemi, (2017) states that clothing industry sustainable production has declined the numbers of rotational buying consumers as they use their old clothes for a longer time than usual to maintain a sustainable society.

In addition to this Rehman, et al., (2017) confronted that 30% to 70% of consumers prefer buying healthier and greener products, but only 5% of them do so during their buying lifecycle. The fashion industry companies like Adidas and Levis have committed on sustainable production following which they emphasise on using virgin plastics along with recycled cotton to produce high-quality clothes or garments at a reasonable price

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(Environmental Leader, 2019). Moreover, recycled insulation and polyester fabrics are used by apparel companies in the manufacturing section to offer eco-friendly products that have minimum impact in polluting the environment. This enhances the loyalty of customers to prefer buying eco-friendly polyester and organic cotton clothes from clothing industry as they trust the company products in terms of maintaining ecological balance. The consumer buying behaviour has changed with the evolution of sustainable as well as ethical production as they gain information regarding clothes cotton or leather usage before buying it (Vehmas, Raudaskoski, Heikkilä, & Menson, 2018). The consumers showcase ethical behaviour during their buying behaviour in which they don't buy products or goods that are made by destroying natural resources or animal killing for satisfying their desired expectation of becoming a corporate citizen. The sustainable production practises adopted within the clothing apparel industry often minimise the cost of the operation which drives customers to buy quality attire at a low price.

### 1.3 Significance of the Study

The value of research is of paramount significance as it emphasises on the trending shift of consumer buying decision with the sustainability production practises adopted by a business organisation. The ethical buying attitude must enforce fashion industry to use organic cotton along with polyester fabrics to deliver eco-friendly attire in terms of maintaining a sustainable environment. The study would also demonstrate the downfall of latex as well as leather industry with the changing production process of fashion industry in terms of offering 100% organic cotton clothes at a reasonable price (Crane, Matten, Glozer, & Spence, 2019). The production pattern of business organisation has drastically changed as customers within fashion industry prefer eco-friendly materials, clothes, and accessories to maintain ecological balance. The importance of conducting this study is that it would assist in comparing purchasing pattern of consumers influenced by the arising awareness of sustainability within the fashion industry. The significant

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sustainability approach of business organisation is presented with the aid of a triple bottom line that drives organisation to look towards sustainability along with considering profitability. The study also showcases the trending demand of consumers towards eco-friendly and organic fabrics production clothing in terms of developing pollution-free society. The study has emphasised the degree of consumer buying behaviour change within fashion industry with sudden emergence of polyester and organic component products. Moreover, customers also check the materials of clothes in terms of fabrics and leather used so that they will support sustainable environment by banning products made up of animal's skin or hazard colours (Vehmas, Raudaskoski, Heikkilä, & Mensonen, 2018). Loyalty of customers that choose to purchase eco-friendly polyester and organic cotton clothes stems from the company's values of sustainability and maintaining ecological balance.

#### 1.4 Research Aim

The research study aims to evaluate the effect of sustainable production on consumer buying behaviour.

#### 1.5 Research Objectives

**The associated research objectives related to conducting study are as follows:**

- To evaluate the reason for the change in customer choice
- To identify the strategy adopted by the firm to retain the customer base
- To assess the emergence of organic products along with its demand in market
- To analyse the effectiveness of sustainable production practises on retaining customer

The following research objectives are beneficial for structuring and meeting all components of research study by addressing relevant research questions. The secondary data assist in gaining significant information about the

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change in consumer buying behaviour due to emergence of sustainable products in a competitive market.

## 1.6 Research Questions

The research questions are analysed throughout the data analysis, and literature review section for structuring the study efficiently is presented below:

- What is the degree of change amongst customers towards sustainable production in apparel industry?
- Which type of sustainable products have impacted the consumer buying behaviour to the highest extent?

## 1.7 Scope of the Study

The scope of the study is contributing to a field of business research that evaluates the effect of sustainable production on business. Mainly, it helps in understanding the effect of sustainable production on buying behaviour of consumer. Therefore, the scope of this study is also contributing to business research on consumer buying behaviour.

## 1.8 Research Methodology

The research methodology section of the dissertation gives details about the techniques used in the research, which consists of positivism philosophy, inductive approach, exploratory design and narrative strategy. Also, secondary data collection methods are found to be used in the research. It also discusses about research limitations, which consists of author's bias and researcher's bias.

## 1.9 Structure

The first section of the research study is based on introduction in which all the research variables is present in the study. This part is one of the vital

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sections in which aim, as well as objective of the research, is represented. Under this section, significance of the study is also discussed which assist in reflecting the effect of sustainable production on changing consumer buying decision.

Next part is the literature review, which is based on the secondary research, which is done by the assistance of the different types of the books and journal or from the past research based on sustainable and ethical production process followed by companies within the fashion industry. The section of study also represents a research gap in terms of defining relationship between sustainable production and changing buying pattern of consumers.

The third section is the research methodology, where the methods which are adopted by the researcher while completing the research are explained in detail. Under this method, like data connection, philosophy different other perspective is presented to complete the study in limited time.

The fourth section is the data collection and data analysis part, in which the secondary data analysis represents to meet the objective of the research.

The final part of the research is the conclusion, where the objectives and recommendations are linked.

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## **2 Literature Review**

### **2.1 Introduction**

Sustainability has become a concerned matter for society and businesses across the world. Climate change, global warming, pollution, and health problems due to pollution and global warming have enforced customer as well as society to think about sustainability. In businesses, sustainability has impacted on both production and consumption of products. This factor has also influenced the United Nations to develop a goal or strategy for sustainable production. The sustainable consumption and production goal of UN focus on environment sustainability by securing the consumption of food, energy and water (UN, 2019). The goal also emphasises on integration of environmental sustainability with social welfare and economic growth. According to the UN, 93% large size business organisations among the 250 largest firms have adopted the concept of sustainability (UN, 2019). However, the UN has also pointed out that the world population will reach more than 9.6 billion by the end of 2050 (UNEnvironment, 2019). This concerning issue enhances the need for adopting sustainable production in businesses by setting new business strategy and fulfilling customer needs. This research study intends to discuss the impact of sustainable production on purchasing behaviour of customers. Particularly, this section of the study has analysed information to discuss the literature associated with sustainable production and its impact on customer buying behaviour.

## 2.2 Conceptual framework

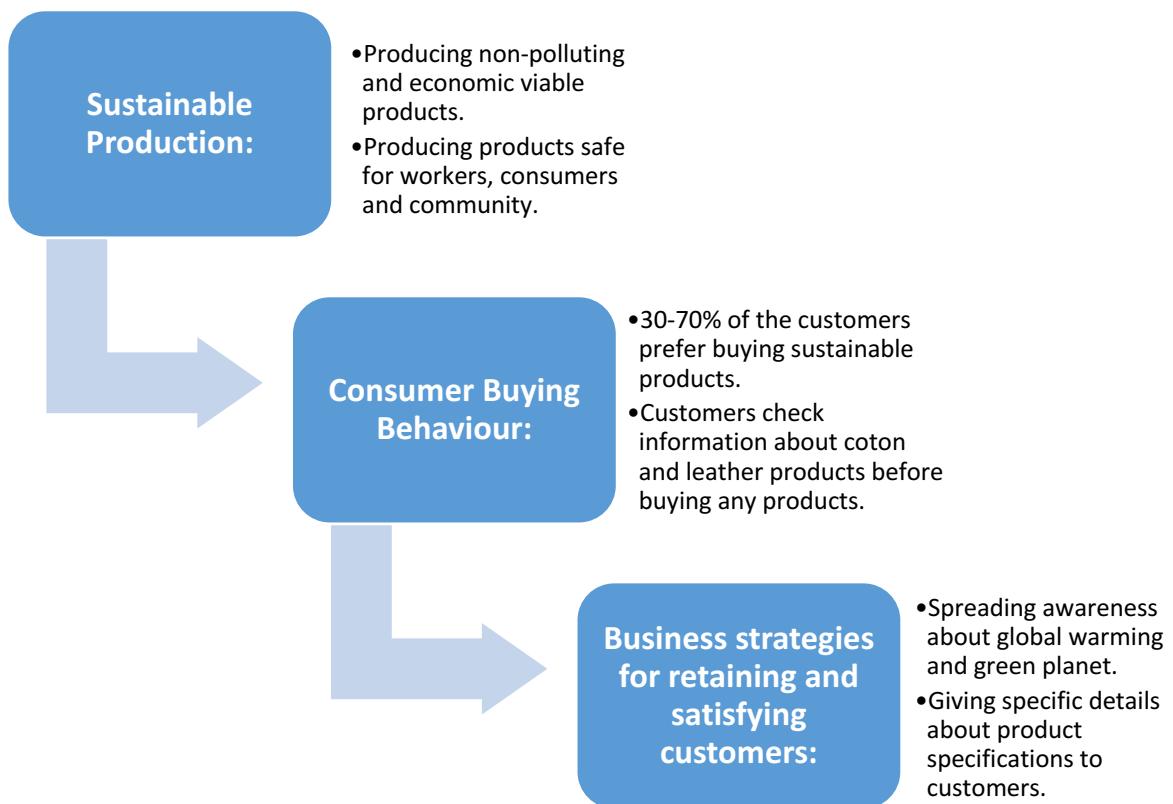


Figure 1: Conceptual Framework

Source: Author

The conceptual framework helps in linking the variables that are a part of the overall study like sustainable production, consumer buying behaviour and the strategies of retaining customers. Here, it is seen that sustainable production consists of producing any product that is non-polluting and economically viable for the community. Also, it has been found that sustainable products are safer for community, consumers and workers because it is organic and non-harmful for the population. It is seen that the impact of sustainable production on consumer buying behaviour is that 30-70% of customers want sustainable products and check information about leather goods and cotton products. Also, spreading awareness about the green environment and providing specific details about product specifications to customers.

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## 2.3 Concept of Sustainable Production

Sustainable production is the manufacturing of products in such a way that they maintain environmental sustainability and does not use non-biodegradable things in production like plastic. Wiles & Watts, (2014) states that sustainable production impacts customers' behaviour by making them more concerned about the environment including checking the manufacturing process of the organisation. Modern customers have gotten media exposure about environmental degradation, which makes them prefer organic products over non-organic product, which has led to its emergence. So, as stated by Tukker & Charter, (2017), customers are avoiding products like leather jackets, which are non-organic and leading to the drastic killing of animals that leads to their extinction.

The aim of sustainable production in the modern generation is adapting every consumer product with the changing environment. According to Vergragt & Akenji, (2014), if any product cannot adapt to the changing external environment, then it cannot sustain in the long run. Due to the spread of environmental sustainability by the media, the apparel industry is manufacturing products made of cotton and avoiding leather in the manufacturing of products. The global clothing industry consumes 54% of energy generating in the world regarding GHG (Greenhouse Gas) emission. It has been found that brands like Zodiac has produced organic cotton for attracting modern customers who are much worried about environmental sustainability (Zodiaconline, 2019).

Sustainable production helps in achieving environmental sustainability by making the public support the cause of reducing the environmental impact by choosing options that are environmentally degradable. Ebert, (2014) states that the production of sustainable products has certain global standards that every industry is found to follow, which consists of Nordic-Swan Eco label, Life Cycle Assessment (LCA) and Global Reporting Initiative (GRI).

Life Cycle Assessment (LCA), on the contrary, discloses and evaluates environmental advantages of every product throughout their lifecycle from

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the extraction of raw materials to final disposition, which is a label that is given on the apparels that are produced organically, which help in understanding that the apparel is produced by the help of organic cotton. Pelgrom & Berghout, (2016) states that LCA is now known as the International Standard of Organisation (ISO) label in products. On the contrary, the GRI helps in researching on a wider context in relation to sustainable production in the organisation, which consists of economic, social, and environmental standards in all activities, services, and products. Testa & Annunziata, (2016) states that the stakeholders' interests like profit-making, and sociological indicators like using biodegradable products during the manufacturing process accurately help in depicting ecological and social performance in an organisation.

The sustainable production in an organisation is also accompanied by product standards that are required to be followed internationally like the Organic Apparel Label standards. As Tukker & Charter, (2017), organic apparel consists of producing apparel products without the use of animal skin or silkworm killing for producing expensive fabric, which used to be made in the previous days. Generally, a green and white seal is given on the manufacturing of apparel products that are completely organic in nature. Vergragt & Akenji, (2014) states that during the preparation of sustainable products, it is produced in such a way that waste products that are ecologically incompatible are avoided during the process of production.

While creating sustainable products, the working process is conserved and enhanced for increasing creativity and efficiency. Testa & Annunziata, (2016) states that the well-being and security of people who are in the manufacturing process of organic and sustainable products are present for encouraging people in developing such products. Also, the people who are engaged in the process of sustainable production are trained and motivated to increase their capacities and talents for the sake of creating more organics and sustainable products to support the demands of customers.

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## 2.4 Evolution of Customer Buying Behaviour

Customer buying or purchasing behaviour refers to the perception that consumers hold to buy a product or take a service. According to Hill & Alexander (2017), customer purchasing behaviour is one of the considerable factors for a company to set marketing strategy. Businesses of this era have focussed to reflect on sustainable production as it is helping them to contribute towards economic, social, and environmental sustainability. Sustainable production refers to the process of producing products and provides service by using environmentally sustainable products. According to Wiles & Watts, (2014) environmental factor should be a most concerned aspect of sustainable production, which is required to focus on a non-polluting production system and conservation of natural resources as well as energy. However, Tukker, et al., (2017) argues that economic viability and social welfare factors like safety for consumers, communities and workers are also needed to consider in sustainable production. Climate changes and health problems due to pollution have impacted the perception of customers too. This has led consumers to adopt green purchasing behaviour, which is about purchasing environment-friendly products and avoidance of the products which are harmful to the environment. However, Yi, (2014) claims that the basic focus of customer or their behaviour would always be towards the purchase of products which are economically cheaper and viable.

Production of sustainable products involves excessive investment in the manufacturing process, which leads to an increase in product cost. In accordance with Hackett & Dissanayake, (2014) this factor can be an obstacle for the growth of sustainable products and its attraction among customers. However, sustainable products are cheaper for customers to operate and use. For example, energy-efficient light bulbs consume a lesser amount of electricity in comparison to normal light. According to the United Nations, if people across the world start using energy- efficient light bulbs, then the world would be able to save more than \$120 billion in a year (UN, 2019). In the case of clothes or apparel products, sustainable products do not have need for washing which reduces customers' work on cleaning. Because, the

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materials used for sustainable production like jute, can be affected or damaged due to the use of water. Along with this, customers are also not required to purchase detergent or use laundry services. Due to the reason, customers have been attracted to use the products as it reduces their pressure for cloth washing.

Development of such products and reduction of maintenance cost have also influenced customers to purchase sustainable products or adopt green purchasing behaviour. A report of Forbes has shown that the searches for sustainable clothing are constantly rising across the web platform. According to the report, Veja, a shoe manufacturing company has observed an increase of 113% on their website for sustainable clothes (Forbes, 2019). Even after such demand for its sustainable clothes, the cost for purchasing such products are creating a barrier to the widespread sustainable products. According to Dornfeld, (2014) purchasing cost of sustainable products are quite high for poorer, which creates hindrance for them to purchase. This reason is affecting sustainable production to occupy the customer base who is economically weak.

The study of Lorek & Spangenberg, (2014) has also shown that the process of consumption is dependent on factors like social, economic, and environmental. Concerning factor related to the environment has led to the sustainable production concept, which has also influenced the economic viability of products for widespread utilisation. However, social factor like health and safety have also influenced the customer to purchase sustainable products. In accordance with Association, (2015) people prefer to get involved in the primary intervention for preventing diseases which have reflected on the trade of sustainable products. Production of clothes from cotton involves the use of various pesticides which are considered as a major reason behind cancer, especially for human skins. In the study of Bashshur, et al., (2015) it has been found that the disease is not easy to treat with proper medication technique, but it can be prevented. Due to the reason, consumers have focused to avoid using clothes made by polyester which is reflecting on the increase of sustainable clothes demand among customers.

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## 2.5 Business Strategy to Retain Customer

In this era of sustainable production and consumption, business organisations have focussed on modifying strategies and adopting the concept of sustainable development. It is known as the process of protecting, enhancing and sustaining the natural resources for meeting with the needs of stakeholders. According to Falkner, (2017), environmental problems have become important for businesses as economic growth contributes to the issue. Because, economic growth means contribution towards the increase of wastage materials which are common and important elements behind pollution and effect on environment. Owing to the reason, businesses have emphasised on inclusion of sustainability in production and sales. However, it has also become difficult for organisations to attract customers as they are always providing preference to the traditional primary factors like price and quality. In this context, sustainable production or products clashes with the traditional factor which leads companies to set new business strategy.

Business strategy refers to a set of actions and moves which an organisation adopts for customer attraction and business success (Scholes, 2015). To promote and sell sustainable products, companies have focused on separation of brand or department. Branding is known as a process in which a company trade a category of products with a different name, logo or design. In accordance with Dinnie, (2015) it helps organisations to promote products independently and focus on a specific segment. Such kind of a strategy is helping companies to operate their sustainable product category business with different tactics. However, the study of Iannuzzi, (2017) has reflected that increase of sustainable products' sale is dependent on a company's ability to sale sustainable products at an affordable and viable cost.

In addition to this, influencing information or facts like effectiveness of a product for health is also a factor that can affect customer. By considering the factor companies have aimed to present statistical and environmental information for grabbing the attraction of customer. For example, Levi's has

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focused to reduce their water consumption for jeans manufacturing. According to the company, production of a pair of jeans requires more than 1000 litres of water (Levistrauss, 2019). For this reason, the firm has adopted a strategy for reducing water consumption in the finishing stage of jeans production (Levi, 2019). Sustainable production not only includes manufacturing procedure, but it also involves packaging process. According to Jambeck, et al., (2015) plastic wastage from packaging materials is harming the environment more in comparison to the effect of products. For this reason, companies have focussed on including paper bags for packaging, which is also helping companies to retain environment concern customers. In order to retain customer, Levi's, the cloth manufacturing company, has also focused to promote the benefits of avoiding water usages in jeans washing process. According to the CEO of Levi's, avoidance of water usages in cleaning helps customers to maintain look of their jeans (Independent, 2019). By using such promotion technique, the company aims to retain and attract customers as it influences them to consider sustainable consumption approach.

## 2.6 Recent Trends of Sustainable Production in Clothing and Apparel Industry

The study of Tang, et al., (2016) has pointed out on another trend of sustainability in retail industry that is adoption to the recycling technique. By adopting the strategy, cloths and apparel companies have focused on purchasing old products from customers and using those for purposes like carpet padding, toys stuffing and insulation. For example, the North Face, a cloth manufacturer, has adopted a strategy of old cloth purchasing with an amount of \$10 to \$100 (Thenorthface, 2019). The factor has given benefits to the organisation as the customers come to sell their old clothes; those are also purchased new products in the same store. Recent trends of sustainability have also impacted on the manufacturing companies from apparel sector as they have focussed on producing environment-friendly products by using recyclable materials. For example, Nike, one of the

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reputed sportswear manufacturers, is utilising recyclable products for manufacturing its products. The organisation's production process is currently dependent on its waste products, which consist of 71% of the company's entire production (Huffingtonpost, 2019). For this purpose, the sportswear manufacturer has adopted the Air technology, which is helping the firm to avoid land filling. For example, the company has diverted more than 95% wastage to landfill in between 2016 and 2017 (Nike, 2019).

Clothing and apparel industry have also face problem due to the production of cloths by using animal skins. Regarding this, India and China are two developing nations where animals like cow, buffalo are slaughtered on regular basis for using skins to produce clothes. The skins are used for manufacturing leather products like clothes, shoes etc. On the other hand, Australia fulfils the world's most of the wool which leads sheep to undergo through mulesing, a process to cut skins from lambs without using any pain killers (PETA, 2019). In accordance to Lundblad & Davies (2016), production process of clothing industry has face criticism due to usages of such products. This factor has influence cloths and apparel manufacturer to avoid usage of such materials. Additionally, strict animal laws regarding production of clothing products and animal right movement by organisations like PETA (People for the Ethical Treatment of Animals) have also enforced the companies to avoid animal skins and move towards sustainable production. The trend of sustainable production has also been seen among the emergence of small and medium size companies. The firms are manufacturing cloth products which are unique in style. This trending factor is also providing benefits to the companies as customers of the industry always looking for unique, trendy and innovative products.

## 2.7 Emergence of Organic Products and its Demand in Market

In the previous days, organic products are lesser used because people are not environmentally conscious due to lack of media exposure. Products like leather jackets were popular due to their durability but nowadays, leather jackets are avoided by consumers due to the fact that they are responsible

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for extinction of a lot of animals (Biswas & Roy, 2015). However, health consciousness of consumers has increased in the modern days due to the increase of obesity and sedentary lifestyle. Moreover, the increase of knowledge by faster and easier access to media has helped people get greater knowledge about the use of chemical substances and pesticides for producing apparel (Clayton & Radcliffe, 2018). Naturally, the consumers nowadays have raised their eyebrows at non-organic apparel products and prefer to wear apparel that is completely organic by nature. The increase of media coverage about animal welfare have stopped the use of animal skin for leather in making the apparels, and therefore, the customers prefer cotton products in modern times (Clayton & Radcliffe, 2018). Moreover, plastic pollution has also gained ground in modern times that has resulted in customers having their preference towards paper packaging instead of plastic packaging.

The emergence of consumer buying behaviour have increased with the change of consumers' outlook about apparels that they consider as fashionable. In the previous days, it has been found that silk and leather jackets were popular as a fabric (Deng, Xu, & Kuang, 2014). However, with the increase of environmental concerns like extinction of silkworms and animals, hunting the animals for leather has become a thing of the past. Therefore, people are choosing organic apparels made of cotton for supporting the cause of environmental sustainability.

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### In stock numbers of 'sustainable' apparel Q1 2016 vs 2018

Based on number of products available at 52 global retailers each quarter.

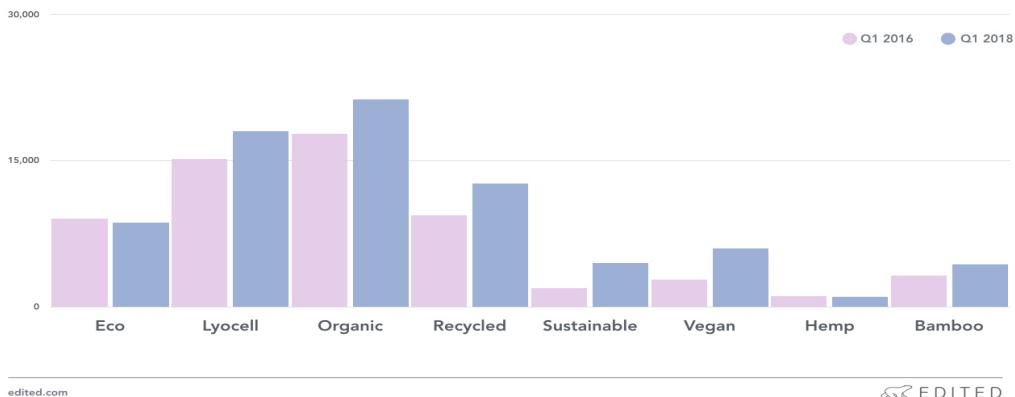


Figure 2: Production of different types of sustainable apparel

Source: (Crane, et al., 2019)

The chart shows how the organic apparels are growing at the highest rate in the market. Though from the given chart, it can be observed that sustainable production regarding the apparel industry such as eco-friendly clothes, lyocell clothes, recycled clothes and bamboo clothes are in the offing. Yet, it has also been seen that the organic apparel is highest in the amount of growth rates.

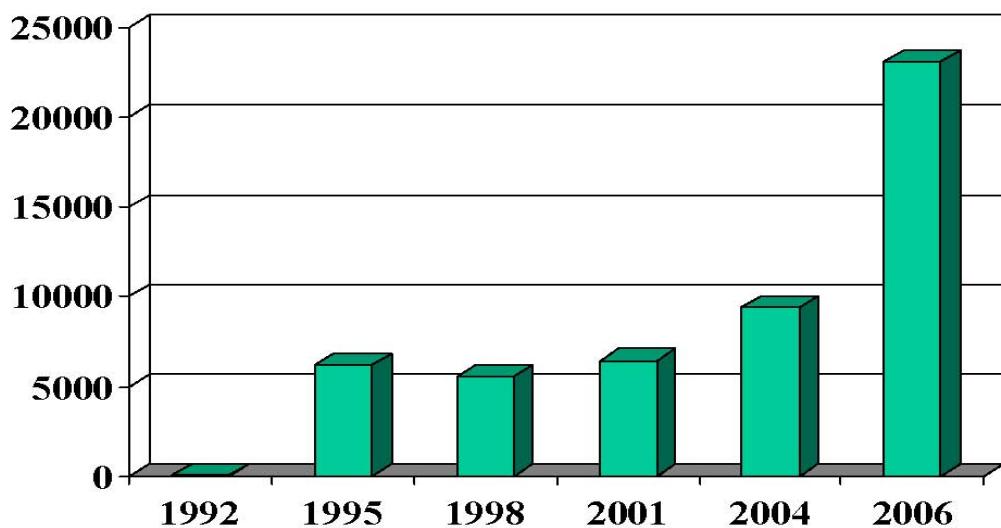


Figure 3: Growth in organic cotton

Source: (Clayton & Radcliffe, 2018)

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The graph shows the growth of organic cotton market in the world. As far as the two companies Solly is concerned, it is seen that the two brands are manufacturing the cotton products for increasing the customers' attraction in the modern generation (Allensolly, 2018). According to the chart, the growth has increased close to 24,000 within the year 2006, which helps in understanding the demands of consumers.

Wiles & Watts, (2014) says that a green and white label on an apparel product that is sold in the supermarket ensures that the product is 95% organic by nature. The UK soil association has reported that the trend of consumers in relation to sustainability and health are highly increasing the UK organic sector, with a profit of about £45 million every week (Forbes, 2019). Testa & Annunziata, (2016) mention that organic demands of consumers in the modern days are not only restricted to the manufacturing standards but also to the packaging standards. Most of the customers are not satisfied when plastic packaging is used for delivery of products. It has been seen that the clothing stores are also following the aspect of environmental sustainability in relation to the packaging, where more paper bags are used instead of plastic bags because the paper bags are organic and plastic bags are harmful for the environment because it is non-biodegradable.

According to Vergragt & Akenji, (2014), the demand for organic products has also increased in relation to the apparel industry, where the consumers do not prefer leather apparels, which has lack of concerns towards the environment. Due to the increase of concerns over animal rights, and the increase of endangered species in the community, the demand for organic clothes made of cotton is in higher demand. About 76.2% increase in demands for cotton made clothes and shoes that are organic have increased in demands in all the stores of UK. It has been found that the customers are looking for organic apparels in the virtual world.

As stated by Tukker & Charter, (2017), the customers are looking forward to every detail of the production process before making the purchasing decision. For example, the animal welfare standards during production has

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reduced the manufacturing of apprals using animal skin or by killing the silkworm. Vergragt & Akenji, (2014) states that the consumers' demands for buying organic products like cotton apprals are also understood by digital analytics where it has been observed that about 84% of consumers in the UK search for organic clothes instead of clothes that damage the enviornment.

## 2.8 Effectiveness of Sustainable Production to Retain Customer

Sustainable production is an effective way to retain customers in modern times owing to the increasing demands for organic products that contribute towards achieving a green environment. As stated by Nuttavuthisit & Thøgersen, (2017), customer retention is associated with understanding the customers' mind-set and psychology. In the modern context, customer behaviour is dominated by sustainability initiatives that are taken by a company. Tukker & Charter, (2017) states that UK consumers are more prone to be attracted to organic products that are environmentally sustainable. Therefore, the apparel industry is avoiding the leather made jackets and other materials that are non-sustainable for the industry.

As stated by Vergragt & Akenji, (2014), customer retention is done in the present market by informing them about the ISO and GRI standards in all the products. This enables the customers to understand that the products are organic by nature and environmentally sustainable. Moreover, the organic apparel labels that are green and white enables the customers to understand that the apparel product did not use any animal skin or silkworm throughout the process of its production. Also, during the process of marketing, the customers are retained by stating that all the apparel products and clothing are completely sustainable in nature.

Sustainable production is also helpful for retaining modern customers who are more concerned about environmental protection because of the media exposure about environmental degradation. As stated by Pelgrom & Berghout, (2016), sustainable production is also related to the retention of customers by maintaining the animal welfare guidelines in manufacturing of

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apparel. The videos are shown to the customers that in order to prepare organic apparel, no silkworms are killed, or no animal skin is taken out for the making of leather jacket, which hampers the environmental sustainability.

Also, the supermarket uses sustainable production standards by making the customers use as less paper as possible during the purchase other than the packaging purpose. The bills are given in an electronic format, and paper packaging instead of plastic bags are given for products (Pelgrom & Berghout, 2016). During too high amount of purchase, the delivery is given in bag made of clothes instead of a plastic bag for environmental sustainability because plastic is harmful to environment as it is non-sustainable. The triple bottom line model is followed by the organisations for retaining customers, which means maintaining profit, people and the planet at the same time.

Sustainable products like cotton apparels and shoes made from fabrics are in high demand due to the fact that the customers do not want to wear leather jackets and silk anymore (Pelgrom & Berghout, 2016). So, the manufacturing of sustainable products is required for the sake of retaining customers who are more sensitive about the environment and want to use the apparels that are customer friendly. For retaining the customers, the entire process of production including the packaging and the production house is monitored on a regular basis for the sake of environmental sustainability.



*Figure 4: Triple-bottom line model*

Source: (Vergragt & Akenji, 2014)

Based on the model, it has been found that the profit and loss of a business are also considered, which consists of the profit part. On the other hand, the people who maintain the overall operations of the business are monitored to check if they follow a sustainability process. On the contrary, the planet part is related to the environmental responsibility of a firm, which is maintained by the help of sustainable production that helps in maintaining a greener planet in the long run.

In the previous days, when the customers were not much conscious about environmental standards, it was observed that the businesses had mainly concentrated on the profit part. However, Tukker & Charter, (2017) stated that the businesses had changed their objective with the passage of time and they had understood that only concentrating on short-term profit actually decreases the profit making capacity of the business as it slowly declines. Concentrating more on the long-term profit increases by maintaining the other two parts of the triple-bottom line, which consists of people and planet.

Sustainable production helps in maintaining the people and planet in regards to the triple-bottom line of a business. Hackett & Dissanayake, (2014) states that the monitoring of people during the apparel production helps in

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understanding whether the sustainability standards are followed properly or not. On the contrary, maintaining the planet has been made possible in the apparel industry by the help of making strict regulations where the animal welfare standards are followed and no animals are killed for animal skin or the silkworms are not used for producing the silk fabric.

Maintaining the customer retention is also possible by caring about the planet, which is a part of the triple-bottom line policy of business (Deng, Xu, & Kuang, 2014). Therefore, most of the businesses in the apparel industry also takes CSR initiative towards spending a part of the profit towards environmental sustainability. This helps in the retention of customers by increasing their trust on the production process and the environmental initiative, which is related to sustainable production.

## Summary

The section of the study has discussed different literature associated with sustainability and its impact on consumer purchasing behaviour. For this purpose, the section has included information from secondary sources like journal articles, books, and reports. Increase in world temperature, changes in climate, pollution and global warming have enhanced the need for sustainability in a combined manner, which has impacted on business operation and strategy too. The United Nations have also focussed on developing sustainable consumption and production in business by setting a goal. However, adoption to sustainable business has also impacted on customer behaviour as it leads to increase production cost. But still, environmental and societal concern among customers have been working as a positive factor for a business to attract and retain customer. Adoption to branding, delivering attractive information in promotion have also helped companies to retain customer.

The sustainable product has impacted the consumer buying behaviour by altering the choices from the previous days like leather jackets and organic fabric like cotton non-organic apparel. Nowadays, the modern customers are

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more prone to choose organic apparel with fewer fabrics for a healthier lifestyle, and, by taking the initiative for the development of making organic clothes by not using animal leather. The sustainability policies are followed by an organisation by following the triple-bottom line, which consists of helping the maintenance of environmental sustainability by using the organic products like cotton fabric in the apparel industry and by also using paper bags in the entire line of delivery.

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### **3 Research Methodology**

#### **3.1 Overview**

Research Methodology deals with the selection of methods and directions required to initiate research. It is basically an action plan designed to set variables of research in such a way that it successfully meets the predetermined research questions and objectives as well. The methodology of research proceeds through appropriate selection of research philosophy, research design, research approach, research strategy, and data collection technique and data analysis. The current section of research methodology will consist of limitations offered by chosen methods and the restrictions which have been faced during researching the effect of sustainable production on consumer behaviour.

The following section gives a brief analysis of the philosophy with which the investigation has been carried to understand the effect laid by sustainable production upon the purchasing decision of consumers. The current section gives information about the method which has been chosen to collect data about companies like Alternative Clothing, which are following the principles of sustainable productivity and their consequent consumer base. It has been analysed through this section whether the predetermined research design has been found appropriate to successfully find out the impact of sustainable production upon the behaviour of consumers. In the end, the following section determines to what extent the methods described in research proposal has been found effective while conducting the research upon analysing the effect of sustainable production upon the buying decision of consumers.

#### **3.2 Methodology**

Methodology is defined as the methods that are followed when conducting a research. The present research is done with the help of data and statistics related to sustainable production which is why; the positivism philosophy is selected. The exploratory research design is selected for establishing link

between two variables called sustainable production and consumer buying behaviour. The narrative research strategy is used for properly explaining the research topic and the inductive approach is used for deriving more than one research inference.

### 3.3 Research Philosophy

According to the research onion, research philosophy acquires the preliminary position with respect to other variables of research methodology like research strategy, approach and data collection technique (Flick, 2015). The position of research philosophy in the research onion signifies its importance in carrying out the research. Research philosophy deals with the concerned belief among researchers to determine the direction of the research. Selection of research philosophy varies with the varying decision of the researchers because it solely depends upon the researchers to determine the best method for the research (Quinlan, et al., 2019). Based upon the varying opinion of authors, research methodology is classified into positivism, realism, and interpretivism.

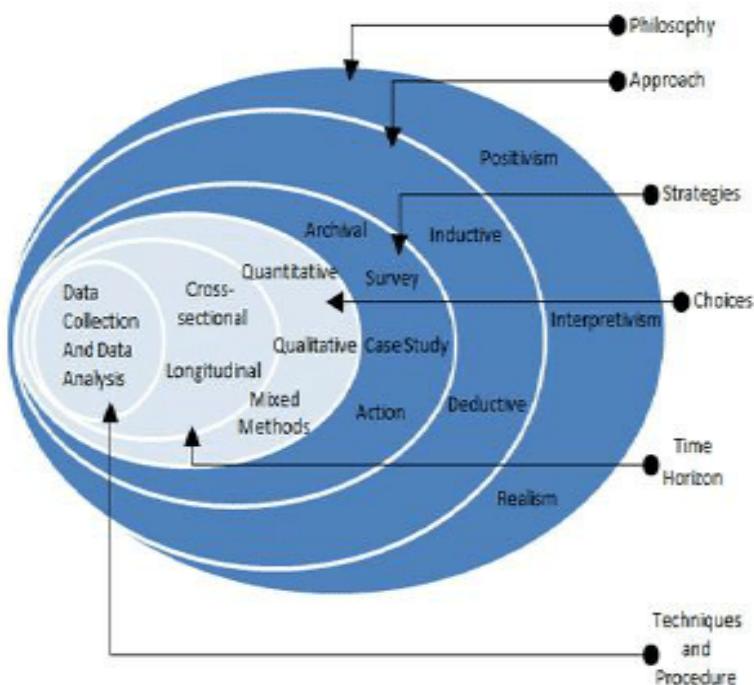


Figure 5: Research Onion

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Source: (Flick, 2015)

Positivism philosophy is concerned with the belief among researchers to incorporate the statistical data or events in the dissertation, which already exists in order to meet the research objectives. Interpretivism deals with the interpretation of statistical and qualitative information that are present in the research, and it deduces an inference by a logical analysis of the results. Realism philosophy proceeds with the combined concept of positivism and interpretivism, which consist of both real-time data and the interpreted data.

Analysing the basic principle of all philosophies, the approach of realism philosophy has been selected to research the impact of sustainable production on the buying behaviour of consumers. Since, it is required to establish a link between the two variables of the research, i.e. sustainable production and consumers' buying behaviour, it became necessary to collect real-time data upon sustainable production and interpret the collected data to analyse consumers' buying behaviour. So, it has become inevitable to select realism philosophy in order to establish valid connectivity between sustainable production and consumers' buying behaviour.

As found in the section of literature review, consumer behaviour has been analysed by interpreting the data which has been gathered regarding the sustainable practices carried out by the fashion industry of UK in the production of clothes. Application of realism philosophy has successfully investigated the tendency of veganism in the fashion market of London. Using realism philosophy, it has been possible to find out the statistical data regarding annual purchase of organic products after sustainable practice being implemented by fashion industry of UK. After collecting the data, records have been interpreted by following the principle of realism philosophy in order to understand consumer preferences.

The reason behind rejecting positivism approach is that the principle of positivism philosophy only talks about utilizing the existing records in the dissertation (Kumar, 2019). So, using positivism philosophical approach, it would not have been possible to establish a link between sustainable

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production and consumers' buying behaviour. Some data have also been collected regarding popular fashion brands such as Zodiac and Solly and their diminishing annual turnover. The collected information has been interpreted to analyse consumers' buying behaviour of those popular brands which violates the basic principle of Positivism philosophy. Thus, positivism philosophy has not been used to carry out the research upon investigating the effect of sustainable production upon purchasing decision of consumers.

Interpretivism research philosophy has also not been used since it allows only interpreted results in research reports. Since the research report has been created with the attempt of including both statistical data and their interpretations, interpretivism philosophy would not be the appropriate approach.

### 3.4 Research Design

The research design estimates the action plan, which has been designed to proceed with the research upon investigating the impact of sustainable production on consumers' buying behaviour. It basically includes the steps which have been followed throughout the research. Research design is categorized into explanatory, exploratory and descriptive design (Sidel, 2014). Explanatory design deals with a detailed explanation of the variables of the research, i.e. sustainable production and consumer buying behaviour. The exploratory design helps in establishment of interlink between predetermined variables of the research. Descriptive design deals with description of variables, i.e. sustainable production and consumer buying behaviour by taking in depth knowledge of the two.

Analysing the different research designs, exploratory research design has been selected to investigate the present situation of the UK's fashion industry in relation to production of organic products. This is because exploratory research designed had helped to understand the changes in purchasing behaviour of consumers when fashion companies started producing organic cloths made up of rayon or cellulose fibre. Adidas and

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Alternative Clothing had changed their inorganic method of producing accessories to sustainable method in order to quench the rising awareness of consumers towards using vegan products. Exploratory research design successfully determines the impact laid by the changed decision of sustainable companies like Adidas and Alternative Clothing upon their customer base by checking their annual reports of sales and purchase.

The explanatory has not been used to investigate the effect of sustainable production upon buying behaviour of consumers because it primarily focusses on explaining the variables instead of launching a link between the two (Silverman, 2016). The objective of the research is to determine the impact of sustainable production upon the buying decision of consumers. But explanatory research design does not allow to investigate the link between sustainable production and the consumer buying behaviour. It only concentrates upon elaborating sustainable practices adopted by reputed fashion companies like Adidas and the new entrants like Alternative Clothing who have started their portfolio with the essence of sustainability. Explanatory research design also allows detailed description of consumers' intention towards purchasing of vegan products and the underlying reason behind this behaviour.

Descriptive research design has also not been chosen to derive interlink between research variables of sustainable production and consumers' buying decision. This is because a descriptive research design proceeds with the concept acquiring in-depth knowledge about the variables like sustainable production and consumer buying behaviour in general terms and then applying the knowledge in analysing the variables. But the research proceeds with the criteria of establishing a relationship between sustainable production and consumer purchasing decision in such a way that it meets the research objective. Thus, descriptive research design is not an appropriate design method to satisfy the objective of the research which deals with finding out the impact of sustainable production on consumers' buying behaviour.

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### 3.5 Research Approach

The research approach is the determination of procedure which is useful to formulate the objective of research (Mackey & Gass, 2015). The selection of research approach lies within the research question like whether it demands an innovative approach developed in fresh perspectives or deduction of a predetermined theory. Based upon the demand of research question, research approach has been classified into two distinct types namely, inductive approach and deductive approach (Silverman, 2016). The inductive approach deals with developing new concepts and ideologies in order to meet research objective more effectively. In an inductive approach, multiple inferences can be drawn from single research. The deductive approach deals with the derivation of a predetermined hypothesis in relation to the objective of the research.

The following research has been initiated with an inductive approach to analyse the impact of sustainable production upon the purchasing decision of consumers. Inductive approach has helped to derive multiple impacts of sustainable production upon consumers' buying behaviour like positive attitude towards vegan products, abort leather products and tendency to use easy to wash cloth products. Depending upon the sustainable practices adopted by the fashion companies of London like Adidas multiple effects on purchasing behaviour of consumers have been determined.

Deductive approach since initiates with a statement of hypothesis is not applicable for the current research (Flick, 2015). This is because no theory on consumer behaviour or sustainability has been considered to derive the variables of the research, i.e. sustainable production and consumer behaviour. The overall research has been carried out by deriving fresh consumer perspectives with respect to the effect of sustainable production. Thus, deductive approach would not have been a suitable approach to proceed the research upon analysing the effect of sustainable production on buying behaviour of consumers. Another negative side of using a deductive approach is that it summarizes the while analysis into a single conclusion instead of multiple inferences which also do not suits the research criteria.

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Thus, instead of using a deductive approach inductive approach has been utilized and the impacts of sustainable production upon the buying behaviour of consumers have been successfully determined.

### 3.6 Research Strategy

Research strategy sets the approach to analyse the variables of research and interlink between them (Quinlan, Babin, Carr, & Griffin, 2019). Depending upon the research onion, the layer of research strategy is located just after the layer of research approach. This position of research strategy reflects that it is the third most important element of research. Considering the research onion, research strategy is of different types like survey, case study, action research, grounded theory, ethnography and archival research (Rubin & Babbie, 2016). Depending on the research question and the research pattern, narrative research strategy has been used to initiate the research in order to meet the objective of analysing the impact of sustainable production upon consumers' buying behaviour.

Narrative approach of research strategy has allowed investigating the impacts in a narrative way for better understanding of the analysis. The narrative strategy of research has helped to investigate multiple effects of sustainable production upon purchasing decision of consumers. With the help of narrative strategy, the research has explained the tendency of consumers to buy organic products. It has also become possible to estimate the number of sustainable practices adapted by fashion industry of the UK in order to satisfy the growing consumer need for organic products. With the help of narrative research strategy, it has been possible to analyse the present condition of popular fashion brands of UK like Solly and Zodiac, which has not started changing their product portfolio into sustainable ones. The research has narrated the effect and sustainable practices adopted by existing popular fashion brands and new entrants upon the buying behaviour of consumers.

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### 3.7 Data Collection Techniques

The data collection technique consists of tools and techniques which have been considered for collecting information about sustainable production and the effect it brings upon consumers' purchasing behaviour. Data can be collected through two methods, namely, primary research and secondary research. The method of collecting data through primary research involves survey, focus groups and personal interviews with the target audience. In surveys, information is collected from the audience in the form of general questions which are selected in relation to the objectives of research. Researchers get divided into small groups when primary research is done through focus groups (Smith, 2015). Personal interviews consist of interpersonal interaction between a single person with the researcher. This kind of primary research is generally done with reputed people when research needs an expert opinion. One of the methods of collecting primary data is through observation, which specifically observes a group of people under a scenario without asking any question or doing a survey. The results of the observation are also used for analysis.

The secondary method of research deals with collecting information by investigating already published statistical reports. Knowledge about research variables is derived by analysing journals, author opinions and peer reviews (Stage & Manning, 2015). Both primary and secondary research includes qualitative and quantitative information. The qualitative information deals with theoretical information and descriptive knowledge about any concerned topic (Burns, et al., 2014). It does not include numbers or any statistical information. Quantitative information, on the other side includes statistical information analysing authentic records and reports.

Tools for collecting information about the current status of grand fashion companies of the UK like Adidas, Zodiac and Solly has been selected considering the ease and authenticity of the research project. A secondary method of data collection has been used to accumulate information regarding consumers' sales and purchase action. Quantitative data has been gathered regarding sale and purchase activity of consumers by analysing the

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annual turnover reports of reputed fashion companies of the UK. Qualitative data has been collected through secondary source regarding the kind of sustainable practices occurring in fashion industry of UK like aborting production of leather clothes, which involves utilization of animal skin. Data regarding consumer response and sale purchase action has been collected by investigating genuine annual reports of popular UK fashion brands. The information has been collected about the concept of sustainable production and its relevance in the fashion brands of the UK. Qualitative form of information has also been derived regarding evolution of consumer behaviour and the reason behind inclination of customers towards usage of organic products. Statistical or quantitative data has been derived from a secondary source of company websites regarding utilization of waste products in sustainable production. The rate of sales after adopting a sustainable method of production has also been derived using secondary data collection method.

### 3.8 Data Analysis

Data analysis are of two types called qualitative and quantitative analysis (Mackey & Gass, 2015). In this research, both the qualitative and quantitative analysis methods are followed for understanding the effect of sustainable products on consumer buying behaviour. In the modern days, the consumers feel more connected towards organic products for environmental sustainability, which is why; the quantitative analysis helps in understanding the statistics of growth rate of customers who want sustainable products.

Quantitative analysis section helps in collecting statistics about the demand for organic products in the UK market, and, specifically the rising demands of organic apparels in the UK market. The quantitative data is collected mainly from business journals, which includes the analysis of numerical data related to organic products with the help of pie charts, histograms and line graphs. Statistical tools help in developing a relationship between more than two variables (Panneer Selvam, 2014). The pie charts help in comparison between the growth of organic and non-organic products in the apparel

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industry whereas the histograms help in understanding the level of sales in organic products in the UK per year. The line graph helps in understanding the amount of increase per year in relation to the growth of organic products in the UK, and how it helps in retaining customers. The mathematical tools like percentage and mean calculation helps in understanding the average and the percentage increase of organic product sales in the apparel market.

Qualitative analysis is helpful in generating a link between the variables by the help of thematic analysis (Flick, 2015). The thematic analysis helps in dividing the entire process based on themes that are helpful for understanding how sustainable products influence consumer buying behaviour. The qualitative analysis also explains how sustainable production helps companies, specifically the apparel industry to increase the customers as well as retain loyal customers in business.

Qualitative analysis also helps in analysing the impact of sustainable production on consumer buying behaviour by the help of theories like a triple-bottom line. The analysis made by the help of theory helps in reducing the author's bias in the research as it justifiably explains how the protection of people, planet and profit at the same time enables customer retention, which avoids personal opinions of authors about customer retention because all the opinions are analysed by the theory that avoids author's bias. The division of qualitative analysis section into themes helps in the separate analysis of various aspects like the emergence of organic products, sustainable production, environmental sustainability, consumer behaviour and the use of consumer behaviour change in customer retention.

### 3.9 Research Limitations

Research limitations consist of the gaps incurred in selected data collection methods. Since, an only secondary method of data collection is selected, the research report consists of only those data which are already published. No new data has been derived by doing researches or surveys. There lies the possibility of vague information getting involved in the research project since many journals have been found with outdated data. So, the research report has needed special care to avoid risks of vague information getting

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incorporated into the research project. Since only secondary data collection technique has been used, there is no possibility of wide spread information getting used in the report. Information has only been collected from a limited number of journals and books.

## Summary

The research methodology section has helped in understanding the process or techniques that are used in the conducting of research. It has been seen from this section that the philosophy used in the research is realism, the approach that is used is inductive, the design used is exploratory, and the strategy that is used is narrative research. The realism research is found to link between the qualitative and quantitative methods of analysis. The realism philosophy has been found to be used in the context of the research because it has established a relationship between two variables called the sustainable production and consumer buying behaviour, which made it necessary to collect real-time data. On the contrary, inductive research is found to help in creating more than one inference for the research. It has been found that the inductive approach is suitable because the influence of sustainable behaviour on consumer buying behaviour is more than one. The variables are more than one like sustainable production and customer buying behaviour, which is why; the exploratory approach is used for establishing the link. The secondary data analysis and both qualitative and quantitative analysis have been used for the research.

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## **4 Data Analysis and Findings**

### **4.1 Overview**

The data analysis and discussion have been presented in this section of the study, which assists in evaluating essential information regarding impact of sustainability production on consumer buying decision. In the conducting research, only secondary data have been analysed, which have been taken from resources including articles, books, magazines, websites and journals (Meyers, Gamst, & Guarino, 2016). In order to complete the study, thematic analysis is conducted in which themes along with codes are evaluated to establish essential linkage between sustainable production and changing consumer buying decision. The analysis section emphasises on reflecting essential themes that are based on consumer buying decision towards sustainable products in order to develop an eco-friendly environment. The defined codes assist in defining the variables, including sustainability and buying decision, which has a significant impact on industries such as clothing to emphasise healthier production. In the study to analyse the impact of sustainable production on purchasing decision of consumers, a case reference of apparel along with fashion industry are considered to enhance the quality of conducting study. Moreover, finding and discussion is also presented in this section in order to reflect the change in the pattern of consumer buying with evolution of sustainability production, especially in the clothing industry in terms of developing an eco-friendly environment.

### **4.2 Analysis**

The secondary qualitative and quantitative data have been analysed to evaluate significant change in consumer buying decision with industry approach towards sustainable production.

The thematic analysis has been presented below by focusing on themes and codes:

|    | <b>Topic</b>  | <b>Codes</b>   | <b>Themes</b>  |
|----|---|--|--|
| 1. | According to the UN, 93% large size business organisations among the 250 largest firms have adopted the concept of sustainability   | Business organisations are getting involved with sustainable production  | Perception about sustainable production in organisations                           |
| 2. | The impact of sustainable production on consumer buying behaviour is that 30-70% of customers desire sustainable products and check information about leather goods and cotton products   | 30-70% of customers desire sustainable products and check information about leather goods and cotton products before developing a buying decision within the clothing industry | Customers attention to organic clothes   |
| 3. | Due to the spread of environmental sustainability by the media, the apparel industry is manufacturing products made of cotton and avoiding leather in the manufacturing of products   | Media is influencing the manufacturing of cotton products in apparel industry  | Role of media in sustainable production  |
| 4. | Benefits to the organisation as the customers come to sell their old clothes; those same customers also purchase new products in the same store. Organisation adopts the strategy of old cloth purchasing with an amount of \$10 to \$100 | Customers adopt strategy of old cloth purchasing by getting aware of sustainability issues   | Change in consumer buying decision by emphasising on old cloth purchasing strategy |
| 5. | Climate changes and health problems due to pollution have impacted the perception of customers, which lead in adaptation of green poaching behaviour  | Consumers to adopt green poaching behaviour, which is about purchasing environment-friendly clothes made up of   | Customers buying decision towards environment-friendly clothes                     |

|    |  |  |  |
|----|--|--|--|
|    |  | organic cotton   |  |
| 6. | Products such as leather jackets were popular due to their durability, but nowadays, leather jackets are avoided by consumers since they are responsible for the potential extinction of a lot of animals  | Leather jackets are avoided by consumers since they are responsible for the potential extinction of a lot of animals | The animal leather products are not purchased by consumers                         |
| 7. | About 76.2% increase in demand for cotton made clothes and shoes that are organic have increased in demand in all the stores of UK   | Increasing demand for cotton made clothes and shoes in clothing industry   | Increasing demand for organic clothes  |
| 8. | Maintaining the planet has been made possible in the apparel industry by the help of making strict regulations, where the animal welfare standards are followed, and no animals are killed for animal skin or the silkworms are not used for producing the silk fabric | Rules and regulations related with animal welfare and protection have been implemented in different countries        | Different rules and regulation with animal protection for safeguarding the animals |

|    |   |
|----|---|
| 1. | <p><b>Topic:</b> According to the UN, 93% large size business organisations among the 250 largest firms have adopted the concept of sustainability</p> <p><b>Codes:</b> Business organisations are getting involved with sustainable production</p> <p><b>Theme:</b> Perception about sustainable production in organisations</p> |
|----|---|

From the thematic analysis of sustainable production, it is found that companies are being more concerned with the sustainable production to provide value towards the concerns of customers regarding environmental pollution, health issues, global warming as well as climate change. In accordance with the perception of the modern business organisation, sustainable production approach is providing its impact not only on the

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production of products, but also on consumption. Based on this concept of sustainable production, most of the firms of United Nations are adopting this approach to develop their organisational goal (UN, 2019). As United Nation are expecting the world population to reach 9.6 billion within 2050, firms are making a strategy for adopting this approach in an effective way. As 93% of large firms have already gone through this production process, they became responsible for reducing water wastage also (UN, 2019). Because of the technological development, business firms of fashion industries can save water, energy, material and time. As a result, this approach is helping the firms to decrease water consumption, energy consumption along with greenhouse gas emission and sodium salt consumption (Kozlowski, Searcy, & Bardecki, 2015). So, as for maintaining the sustainability, clothing industries are developing strategies which involve the usage of fabrics such as cotton, rayon, reuse stander cooling water and use of drop-fill washing process rather than overflow.

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| 2. | <p><b>Topic:</b> The impact of sustainable production on consumer buying behaviour is that 30-70% of customers desire sustainable products and check information about leather goods and cotton products</p> <p><b>Codes:</b> 30-70% of customers desire sustainable products and check information about leather goods and cotton products before developing a buying decision within the clothing industry</p> <p><b>Theme:</b> Customers attention to organic clothes</p> |
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The thematic analysis, which is associated with the above theme is related to the tendency of customers to choose organic clothes over the non-organic clothes. It is known that, in this era of globalisation, global warming and environmental pollution are being enhanced in a dynamic way. So, as the population worldwide are providing their concern upon the well-being of the environment for which they are acquiring changes in their lifestyle. In this context, sustainable production approach is leading the companies to come in view sight of the potential customers. As sustainable production is capable of offering a safer environment for the community, customers and

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also for the workers, customers around 30% to 70% are preferring sustainable products most (Wiles & Watts, 2014). It is known from that most of the customers in the virtual world searches for sustainable products and checks out all the information about the manufacturing process. By analysing the customer's behaviour, it is found that in the present day, customers prefer to use cotton and rayon clothes rather than leather products. Apart from that, with the help of this sustainable production, companies are being able to spread awareness about maintaining environmental diversity, green environment and product specification to the customers (Dornfeld, 2014). Because of the involvement with these procedures, customer's attraction towards the organic products is increasing in an effective way.

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| <b>3.</b> | <p><b>Topic:</b> Due to the spread of environmental sustainability by the media, the apparel industry is manufacturing products made of cotton and avoiding leather in the manufacturing of products.</p> <p><b>Codes:</b> Media is influencing the manufacturing of cotton products in apparel industry</p> <p><b>Theme:</b> Role of media in sustainable production</p> |
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With the help of the thematic analysis, it is found that media is playing the most crucial role to increase awareness of the population worldwide about environmental welfare. So, because of the media exposure, people are also getting knowledge about sustainable production, which is considered as the most demanded approach in this changing environment. In this context, the apparel industry is being involved with the manufacturing of cotton cloths as well as avoiding the manufacturing of leather clothes, since leather cloths manufacturing are leading animal extinction in a dynamic way (Zodiaconline, 2019). Apart from that, in terms of GHG emission, this industry becomes capable of consuming 54% energy generating. With the help of the media exposure, it is also found that to maintain a sustainable manufacturing process; this industry is adopting new technologies such as Air Dye, which is reducing the usage of water effectively. For manufacturing of clothing, use of

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Air Dye is responsible for 95% less water use, 86% less energy use, which is capable of reducing global warming by 84% (Inspectorio, 2019). The tradition of digital printing is also reducing the water wastage, which is used for colouring clothes. Another strategy that media has conveyed to the apparel industry to lead this sustainable production is involved with the recycle of materials in order to create fibres such as rayon, nylon etc. In this context, it is said that media is responsible for drawing concerns of the apparel industry to make cotton cloths rather than leather products. Because of the media, organisations such as PETA has been introduced to the consumers, which are performing several activities for the welfare of the animals. With more than 6.5 million supporters, this organisation is fighting for the animal rights for safeguarding them.

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| 4. | <p><b>Topic:</b> Benefits to the organisation as the customers come to sell their old clothes; those same customers also purchase new products in the same store. Organisation adopts the strategy of old cloth purchasing with an amount of \$10 to \$100</p> <p><b>Codes:</b> Customers adopt strategy of old cloth purchasing by getting aware of sustainability issues</p> <p><b>Theme:</b> Change in consumer buying decision by emphasising on old cloth purchasing strategy</p> |
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From the thematic analysis, it is evaluated that for sustainable production in the apparel industry, retail industry is also making a strategy for recycling products. With the adoption of this strategy, they are purchasing the old clothes of the customers, behalf of which they are providing offers in their purchasing (The north face, 2019). By attracting these strategies, the clothing industry is being capable of attracting the attention of the customers, also to sell their old clothes and buy new organic products at a less price. This strategy is leading the sustainable production approach in an effective way, as this provides them with the opportunity of producing new environmentally-friendly clothing products by recycling those materials. In

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this context, it is explored that the use of recyclable materials has reduced the wastage of natural resources as well.

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| 5. | <p><b>Topic:</b> Climate changes and health problems due to pollution have impacted the perception of customers which lead in adaptation of green poaching behaviour</p> <p><b>Codes:</b> Consumers to adopt green poaching behaviour, which is about purchasing environment-friendly clothes made up of organic cotton</p> <p><b>Theme:</b> Customers buying decision towards environment-friendly clothes</p> |
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By analysing the topic with the help of the above theme, it is found that because of environmental pollution, global warming is enhancing, which is being responsible for climate change. For this, rate of rain is reducing, ice from polar are melting in a dynamic way and the temperature is increasing day by day. People are suffering to lead their life in an effective way in such an environment. So, as most of the people worldwide are retrieving their concern on environmental sustainability (Tukker & Charter, 2017). In this context, they are being involved with green purchasing behaviour. Because of the adoption of this behaviour, the customer was making a decision to avoid the non-organic products and started to use environment-friendly products. Apart from that, as in past days, apparel industry manufactured their clothing products with leather and silk, which harmed animals as well as silkworms, this was hampering the environmental diversity. Avoidance of such leather products and silk products by the customers have enforced this industry to adopt the sustainable production approach (Global Apparel Forum, 2019). It is also analysed from the above theme that the maintenance of the organic clothing product such as cotton and rayon clothes are cheaper than the leather and silk cloths. This is seen as the advantageous feature of organic products, which are shifting the customers buying behaviour towards the environmentally friendly products.

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| 6. | <p><b>Topic:</b> Products such as leather jackets were popular due to their durability, but nowadays, leather jackets are avoided by consumers since they are responsible for the potential extinction of a lot of animals</p> <p><b>Codes:</b> Leather jackets are avoided by consumers since they are responsible for the potential extinction of a lot of animals</p> <p><b>Theme:</b> The animal leather products are not purchased by consumers</p> |
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From the analysis of the above themes, it is found that media are playing a crucial role to spread awareness about the hindrance of environmental diversity. In accordance with the media exposure, the growing industry and their manufacturing process are providing harm to the environment in a negative way (Deng, Xu, & Kuang, 2014). In this context, it is analysed that, in past days, most of the customer preferred to use the leather product to show off their class or status. Besides that, for the quality of leather, customers were adopted to spend a lot of money also. But from the analysis, it is shown that, for making such leather product, skin of animals was used for which a wide range of animals were being killed. This manufacturing process was effectively leading to animal extinction. So, gained knowledge from the media exposure has helped the customer to avoid the use of such leather products which are responsible for killing animals (Crane, Matten, Glozer, & Spence, 2019). Owing to this reason, it is said that in present days, customers are not consuming animal leather products. Above this, they are preferring the use of an organic product such as cotton and rayon, which are manufactured by the fabrics and not responsible for providing harm to any animal.

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| 7. | <p><b>Topic:</b> About 76.2% increase in demand for cotton made clothes and shoes that are organic have increased in demand in all the stores of UK</p> <p><b>Codes:</b> Increasing demand for cotton made clothes and shoes in clothing industry</p> <p><b>Theme:</b> Increasing demand for organic clothes</p> |
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From the thematic analysis, regarding the increasing customer's demand for organic clothes, it is found that among the population of the UK, usage of

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organic clothing products is increasing. Within the UK stores, the demand for cotton made clothes, as well as shoes, have been increased by 76.2% (Vergragt & Akenji, 2014). From this analysis, it is also known that in last year, because of the increasing demand for an organic product, certified organic textile in the region of the UK was increased by 18%. Customer increasing demand for organic products has also provided a positive incentive to the retailers to expand their use of organic textile within their product line. Based on this context, it is known that worth of "The UK Organic Textile Market" in the year of 2019 has become £41.3 million or the \$54 million, which has been identified as the considerable growth and lead the market to grow by 19.9% (Forbes, 2019). Manufacturing of cotton clothes has also evaluated as a beneficial approach for the environment, as it is responsible in a 46% reduction of greenhouse gas emission and an energy reduction of 62% (Forbes, 2019). In the basis of this evaluation, increasing demand for the organic cloths of the customer is not only leading the environment to become sustainable, but also increasing the market share of the organic textile industry in the UK market.

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| 8. | <p><b>Topic:</b> Maintaining the planet has been made possible in the apparel industry by the help of making strict regulations, where the animal welfare standards are followed, and no animals are killed for animal skin or the silkworms are not used for producing the silk fabric</p> <p><b>Codes:</b> Rules and regulations related with animal welfare and protection have been implemented in different countries</p> <p><b>Theme:</b> Different rules and regulation with animal protection for safeguarding the animals</p> |
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From the analysis of the final topic, it is known that clothing industry is involved with the production of leather, silk and woollen products, which are continuously harming the lives of animals and increasing animal extinction worldwide in a dynamic manner. So, in order to avoid the usage of animal skin, the apparel industry of United Nation has created a strict regulation in terms of "animal welfare standard" (Hackett & Dissanayake, 2014). Following

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this regulation, they are bound to avoid the skin of animal for manufacturing their wearable products. In this context, it is evaluated that by creating such standard for the welfare of animals, the apparel industry would be able to contribute more for the maintenance of the ecological factors of our planet. Adoption of this standard is leading the firms of this industry to use such fabrics like cotton and rayon, which are not acquired after killing any living creature (GOV.UK, 2019). It is explored that in each different country, there are several standards that exist, which are used for safeguarding the animals. As an example, in the UK for the welfare of the animals, "Animal Welfare Legislation Act (1822)" has been introduced. Rules and regulations of this act create barriers for the organisation in the UK to provide harm to any animal for their organisational operations. It is found that in past days, in the fashion industry, animal welfare is not the primary preference, as it is involved with the satisfaction of the customers. But, because of the media exposure, in the present, brands are being rated depending on their treatment to animals. So, mainly for increasing the brand recognition, these firms are following "animal welfare standard", which are leading them to avoid the use of fur, down feather, animal skin, karakul and angora.

#### 4.3 Findings and Discussion

From the secondary data analysis, it has been found that in the era of globalisation, sustainable production has been identified as the strategic production method for companies. As this production method is involved with the proper maintenance of environmental sustainability, so this is likely to be not associated with the usage of non-biodegradable things such as plastic, which may hamper the condition of the environment (Testa & Annunziata, 2016). Because of having this feature, products which have gone through the sustainable production method are attracting customer insight, as it is gathering their concerns about the welfare of their surrounding environment. It is also mentioned in the literature review section that modern-day customers prefer organic products over non-organic products, as according to them, these products are more hygienic as well as free from

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chemical usage. Alongside this, recent customers are avoiding the usage of the leather jacket as the production of such things are leading to the extinction of animals (Pelgrom & Berghout, 2016). In this context, it is found that the customer's choice for using biodegradable products are enhancing the emergence of sustainable production method.

In the literature review evaluation in terms of secondary data analysis, it is explored that in this modern generation, companies are adopting the method of sustainable production in order to relate their products with the changing environment (Tukker & Charter, 2017). Owing to this reason, it is said that if any product would not be able to acquire the sustainable production method, it will not be exposed in the long run. So, as for increasing the demand for sustainable products, factories which are involved with the production of clothing are focusing on the manufacturing of cotton cloths rather than leather products. It is also analysed in every sector; sustainable production should follow certain standards, which are involved with the Life Cycle Assessment, Nordic-Swan Eco Label as well as Global Reporting Initiative (Ebert, 2014). As a result of maintaining these standards, companies have been able to attract the attention of the stakeholders, which are increasing their social performance and brand image.

From a section of the literature review, it is analysed that sustainable production is mostly concerned with environmental factors such as less pollution as well as conservation of natural resources and natural energy. As such companies are concerned of the wellbeing of the environment, they have been able to provide social welfare along with economic viability (Tukker & Charter, 2017). In the modern day, an increased number of people are suffering from health issues due to the increasing environmental pollution, for which their need of buying of environmentally friendly products are increasing day by day. In contradiction to this, it is found that as the production cost of the sustainable product are high, the price of those products become expensive, which are not affordable by all customers. This is affecting the customer buying behaviour, as most customers prefer to choose cheaper products rather than expensive (Yi, 2014). In addition, such

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products are also cheaper to use and maintain. As an example, it can be said that pure cotton cloths are slightly expensive, but it is easy as well as cheap to maintain, rather than leather jackets or any other leather products. In the present day, the clothing industry is also manufacturing the products with rayon fabric, which consist of cellulose fibre. Some consumers may prefer to use cloths, which are made by rayon fibre as those are comfortable as well as less costly.

Furthermore, from the secondary data analysis, it is found that by adopting the sustainable production methods, businesses in this era are adopting strategic decision of sustainable development, as this process is able to meet the needs of customers, along with maintaining the balance of the environment (Falkner, 2017). These production methods can provide economic sustainability, by avoiding the wastage of resource materials. However, as customers are involved with the tradition of having a good quality of products at a less price, it is becoming difficult for them to maintain the quality of products and make it less expensive (Forbes, 2019). In order to resolve these issues, companies are required to implement developed and innovative business strategies.

From the data analysis and the literature review section, it can be said that in the past, people are not habituated with the use of organic products, as they are less conscious about the welfare of the environment (Scholes, 2015). Due to the long durability alongside maintaining class or status, they were likely to prefer the usage of leather and silk products. However, in the modern day, due to media exposure, consumers have been informed that the increased usage of leather and silk products are leading to animal extinction. Moreover, the media has conveyed the wide range of usage of chemical pesticides and substances to produce clothes to the consumers (Yi, 2014).

Along with the manufacturing of products, companies are also focusing on the packaging system. In order to package the products, companies are likely to use paper bags rather than plastic, as such bags are responsible of increasing environmental pollution (Dinnie, 2015).

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From the analysis of the apparel products in the UK industries, it is found that the demand for cotton clothes has been increased by 76.2% (Vergragt & Akenji, 2014). Besides that, from the analysis of virtual clothing store, it is known that customers are widely searching for organic products, and they are concerned of getting the full details about the production process, which will be affecting their buying behaviour.

From the literature review, it is known that in order to retain customers, sustainable production has been identified as an effective approach. It is evaluated that for attracting customer demand, companies are being involved with making of advertisement, which shows that no animal has been hampered at the time of producing their products (Deng, Xu, & Kuang, 2014). Another change that incrementally increases sustainability is the decrease in the use of paper. Companies nowadays are provided customer receipts in electronic format rather than paper.

Consumers are now aware of environmental degradation, which drives them to consume products that are made up of recycled materials and are eco-friendly. According to Tukker & Charter, (2017), the customers of the clothing industry do not prefer to buy leather material clothes, as it is produced by slaying animals, which increase the risk of their extinction. Moreover, the increasing awareness of environmental sustainability has enforced apparel industry to use recycled insulation and polyester fabrics for manufacturing organic clothes to meet trending consumer's expectation. Testa & Annunziata, (2016) states that the stakeholders' interests such as profit-making, and sociological indicators like using biodegradable products during the manufacturing process accurately help in depicting ecological and social performance in an organisation.

The clothing industry has adopted sustainable production, where 100% cotton fabrics clothes are manufactured that are free from any toxic chemicals or mixtures. This influences the buying decision of consumers to buy organic cotton clothes that are easily biodegradable in the environment in order to minimise its negative impact in society (Dornfeld, 2014). One of the reasons why consumers prefer to purchase organic products is to ensure

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their support towards corporate citizenship in terms of developing a sustainable environment. Tukker, et al., (2017) reflect that economic viability and social welfare factors such as safety for consumers, communities and workers also need to be considered in sustainable production. The changing in sustainable production encourage consumers to buy eco-friendly products that have minimum impact on natural resource degradation. Moreover, the production approach towards sustainability assists in enhancing the brand identity of business firms within clothing industry by offering eco-friendly products at a reasonable price. From the literature review analysis, it is observed that health and safety aspects influence consumers to rely on eco-friendly and economical products that satisfy their desire towards maintaining a sustainable society.

In context to this, Bashshur, et al., (2015) reflect that pesticides that are used in cotton production increase the risk of a safety issue for consumers that may cause skin itching or fungal infection. By analysing this issue in terms of natural resources depletion, the companies have followed alternative strategies in which sustainable production is done for minimising environment concern issues. To retain the loyalty of consumer, business organisations reflected that increase of sustainable product sale is dependent on a company's ability to sell sustainable products at an affordable cost. This factor influences the buying behaviour of consumers to always prefer organic clothes in the clothing industry made up of pure fabrics or insulated fabrics that are free from chemical composition (Global Apparel Forum, 2019). The organisation's production process is currently dependent on its waste products, which consist of 71% of the company's entire production. The trend of consumer buying decision has changed with the evolution of organic fabrics clothes, following which people deny the usage of leather jackets for supporting the cause of environmental sustainability. The organic apparel labels that are green and white enables the customers to understand that the apparel product did not use any animal skin or silkworm throughout the process of its production (Vergragt & Akenji, 2014). The sustainable approach adopted by business entities within

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the clothing industry influences consumers to buy organic items by ensuring no harm is done to society, while producing relevant items to meet customer satisfaction level.

## Summary

From the data analysis and findings, it is discovered that businesses in recent times have adopted sustainable production in terms of the continued maintenance of the eco-friendly environment, by producing organic component items. The sustainability policies are followed by companies within clothing and apparel industry to manufacture organic clothes by not using animal leather. From the secondary data finding, it can be said that consumer buying decision towards organic products have influenced the business operations to offer sustainable and hygienic products that are less harmful to society. To ensure loyal customer base development, business organisations ensure that the entire process of production, including the packaging production house, is monitored on a regular basis for environmental sustainability.

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## 5 Conclusion and Recommendations

### 5.1 Conclusion

The research has concluded that sustainable production influences the consumers' buying behaviour positively in modern times. It is due to the emergence of consumers' interest in environmental sustainability, and hence, the interest in organic products has considerably grown. The research has also found that the interest in buying sustainable products has increased considerably due to the influence of media about global warming and green environment. The customers' demands for organic products have been found to increase with time, which reduces the demands for silk fabric and animal leather fabric in the apparel industry.

The research has made it understandable that the use of organic cotton has become useful to procure and retain more customers in apparel industry. Moreover, it has been found that the customer retention in the apparel industry happens using following the triple-bottom line, which is profit, people and planet. For the benefit of the planet, it has been seen that the organic apparels are introduced. On the other hand, for the consumers, it has been found that the organisations or brands like Solly or Zodiac introduce CSR policies such as contributing a part of customers' donations towards the initiative of environmental sustainability.

### 5.2 Linking with Objectives

#### *To evaluate the reason for the change in customer choice*

It has been seen from the secondary data that the media exposure of customers in relation to global warming, climate change and animal welfare are the reasons for changes in customer choice, which have made them choose organic products that are environmentally sustainable. Therefore, it has been seen most of the customers are choosing organic apparels such as cotton fabric in the present day. Previously, silk fabric and leather jackets were very famous for their durability factor. However, in the modern day, most of the people are preferring environmentally sustainable products

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regarding the product packaging such as paper packaging, after the purchase of apparels due to the increase of public awareness on environmental strategies, climate change and global warming informed by the media.

So, it has been derived from the secondary data that the changes in attitude of customers also took place due to increased access to information. It has been found that most of the people use the internet to understand the impact of climate change, which is one of the reasons for change of customer choice, since the customers are educated on climate change and the importance of green environment. In addition, the increased interests on animal welfare and the sharp rise in the number of endangered species have made customers avoid animal leather and silk fabric and focused more on organic cotton. Thus, the secondary data gives enough information about the reasons for change in customers' behaviour, which has assisted in the fulfilment of this objective.

***To identify the counter strategy adopted by the firm to retain the customer base***

It has been inferred from the secondary research material and thematic analysis that most of the organisations like Solly and Zodiac, have adopted strategies such as promotion of products in the online market that all the apparel is organic and environmentally sustainable. It can also be said that the research that the organic labels such as ISO and GRI are given in every product for attracting the customers, and for proving that all the apparels are made by an organic method.

Counter strategies adopted by the apparel industry consists of the fact that most of the customers are encouraged to buy organic products, so that a part of the profit is used for supporting the environmental sustainability initiative. Also, the paper packaging methods are used so that the customers understand that the entire process of production uses the retaining of customer base. Moreover, it has been found from the secondary data that triple-bottom-line is used for retention of customers, which helps in

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satisfying the people and planet along with the maintenance of business profit. All this information helps in understanding the counter strategies adopted by the firm for maintaining the customer base, which fulfils this objective.

***To assess the emergence of organic products along with its demand in market***

The secondary research helps in understanding the slow emergence of organic products in the customer market with time. It has been mentioned in the research that previously, most of the products such as apparels were either made of expensive fabrics like silk, which is produced by killing the silkworms. Additionally, it has been found from the research that animal leather jackets and shoes were popular in the past days. The research demonstrates how the increase of demands for environmental sustainability has made the customers choose more organic products such as cotton fabric in their apparel and shoes.

The secondary research has shown how the emergence of organic products have made the demands for organic labels in all the apparel products like GRI and ISO, including the products of brands like Zodiac and Solly, which needs to be maintained to retain customer base. Therefore, the objective is fulfilled as the secondary research provides information about the emergence of organic product demands with time and its effectiveness in the market.

***To analyse the effectiveness of sustainable production practices on retaining customer***

The secondary research section specifically mentions a theory to analyse the methods of sustainable production practices that helps in retaining customers. It can be said that the apparel stores that are still selling silk and leather are losing customers, which is why; the secondary research shows triple-bottom-line strategy is followed by the apparel industry for customer retention. The triple-bottom line of all apparel firms as seen from the research is people, profit and planet, where the firms have understood that

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the need of maintaining the business for a long-term help in procuring more profit compared to organisations that is concentrating on greater profit in the short-term.

It has been discovered from the secondary data that sustainable production practices are effective to retain modern customers, as they prefer sustainable products in the apparel industry. The sustainable products are found to increase the profit, which allows the firm to spend a part of the profit for CSR initiative related to environmental sustainability, which increases the customers' trust on a firm as it takes extra initiative for environmental protection.

### 5.3 Recommendations

Sustainable production method should be implemented in whole the apparel industry for the purpose of attracting and retaining customers. This is due to the changed choices of customers, as they look for organic apparels in supermarkets. Therefore, all the products should be made with the help of organic cotton, which would increase the profit in the modern generation. The firms should also use sustainable products throughout the process of purchase and delivery, where the packaging should be done with paper or cloth baggage, instead of plastic for environmental sustainability.

In order to satisfy the choice of modern customers, the entire manufacturing process should be continuously monitored, so that the carbon footprint is not present while manufacturing any product. Additionally, the promotion should be done in the online media that to produce shoes or clothes, no animals are killed, and the animal welfare initiatives are taken. Such promotional activities increase the sales, and the customers should also be asked to purchase organic apparel by stating that a part of its profit goes to the CSR initiative taken by the company.

The secondary data implies that there are signs of profit increases as a result of companies adopting sustainable production method. In present day, consumers value sustainable production more than ever before. Due to this,

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customer base will increase after implementing sustainable production method. Sustainable and green companies have become trending and this will lead to an improved brand image. A report of Forbes has shown that the searches for sustainable clothing are constantly rising across the web platform. According to the report, Veja, a shoe manufacturing company has observed an increase of 113% in their website for sustainable clothes (Forbes, 2019). This demonstrates the effect of adopting trending methods and with all the other above reasons, it is recommended to companies to adopt the sustainable production method.

#### 5.4 Future Research

The future research on sustainable production and its influence on consumer buying behaviour is extensive, as the primary research can be used in the future, and, statistical analysis of the primary data can be done. The scope of the research is also further enhanced when a specific apparel company is selected, and the analysis of its sustainability practices are made. The scope of the research is also enhanced by using more than one industry to understand the influence of sustainable production of different industries on consumer buying behaviour.

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