Identity of sustainable fashion brands at the stores

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Abstract
As consumers, we have become increasingly conscious not only about our purchases, clothes and goods, but also about the places where we buy them. Customers are demanding transparency as they take an increasing interest in the ethical practices of those they buy from. This leads fashion retailers to rethink their actual business and take a look at the topic sustainability. In fact, the European Commission said in 2009: “retailers are increasingly recognizing sustainability as a significant opportunity for their businesses to grow, compete and innovate”. Consequently, fashion brands are trying to integrate this issue into their business strategies for both internal and external operations (Maignan et al. 2005).

In recent years, the relevance of sustainable practices has increased in the fashion brands environment. Although many companies have already embraced sustainability in their development strategies, this has not been applied to most of the stores yet. Not only the implementation of sustainability aspect in the main part of the supply chain of fashion retailers is from great importance, we have also to mention the fashion retail store itself. Despite the increasing interest in sustainable products and production processes there is not much information about the environmental friendliness of a fashion retail store (Thompson 2007).

In this paper we will try to analyse the importance of applying ethical practices in the design of the stores. Firstly, we will study some of the concepts that affect more in the sector. Sustainability of the materials they use, their waste, energy or water usage among others. Secondly we will show
some good precedents about this practice. Some brands are concerned about opening a green building retail stores with their ethical identity, one example is Ecoalf and its flagship store in Germany. This retail experience helps to show people not only how important is to acquire sustainable products but also the experience to buy in a green store.

The aim of the study is to analyse how retailers manage to develop a sustainability strategy throughout a clear long-term oriented development and an accurate plan of action to meet the strived goal.

**Keywords:** Fashion Store, Green Building, Ethical Identity, Sustainability

**ISBN:** 978-989-54263-0-0
1. Introduction

The environmental impact of the commercial building sector is important. According to an international report (USGBC 2016), the energy consume of the retail buildings in the US costs $20 billion each year; a typical North American commercial building generates about 1.6 pounds of solid waste per employee per day (264 kg employee/year), and in 2006 the sector in the United States produced more than 1 billion metric tons of carbon dioxide, an increase of more than 30% over 1990 levels.

This had led fashion retailers to rethink their actual business and take a look at the topic sustainability. In fact, the European Commission said in 2009: “retailers are increasingly recognizing sustainability as a significant opportunity for their businesses to grow, compete and innovate”. Consequently, fashion brands are trying to integrate this issue into their business strategies for both internal and external operations (Maignan et al. 2005).

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According to the Report Pulse of the Fashion Industry (Global Fashion Agenda and Boston Consulting Group 2017), “by changing practices, the industry can both stop the negative impact and generate a high amount of value for our society, while also protecting profitability. We estimate that the world economy would gain about €160 billion annually if the fashion industry successfully addres those environmental and social issues”.

But the mentioned report attributes 60% of negative impacts to raw materials, 25% to manufacturing process and 15% to other issues, including retail, packaging and transport. Maybe, this can be one of the reasons of why companies don’t have put their best efforts until now in improving their retail stores.
But retail has a big potential in improving three areas: energy efficiency (lighting, water, building process, etc.); waste generated (in packaging, bags, tags, hangings, etc.) and engagement with consumers on the sustainable values of the brand.

There are some tools to help retailers to address the challenge of building an eco-friendly fashion retail store.

One of them is the Guide LEED® for Retail (LEED is the acronym of Leadership in Energy and Environmental Design). Retail has different characteristics compared with other commercial buildings in terms of hours of operation, occupancy, prototype image of a fashion brand in different countries, etc.

Another is RILA, it’s a Model for retail sustainability executives to identify the management practices that will drive improved corporate and sustainability performance. The Model is divided into seven sections, including: Strategy & Commitment, People & Tools, Visibility, Retail Operations, Supply Chain, Products and Sustainability & CSR Issues. "It is intended to identify possible pathways to strong sustainability programs in retail. The leading practices are currently only performed by a few companies at most; and not every company can/will achieve every leading practice"\(^2\).

But there are few stores yet, that fulfil the requisites to be certified by one of these labels. Moreover, ordinary buyers have no references of how sustainable the store where they buy is, if they are lay people in architecture or interior design.

2. **The importance of applying ethical practices.**

Today there is no evidence of what the best ethical practices in retail stores are, but there is experience of the results provided by the use of the aforementioned guides. We explain in short which are the main goals of these certifications.

LEED Green building certification program offers architects to respond to the big challenges our world faces: climate change, peak oil, renewable energy, etc. Buildings are cause of more than 30% of the total energy consumption. LEED is committed to promote green buildings, or, what is the same, to “help foster greater economic vitality and environmental health at lower costs”, that benefit all building stakeholders, including owners, occupants, and the general public (USGBC 2016).

\(^2\) Roughly 11% of the current retail value of the global apparel and foot sector.
LEED is a system to define and measure Green buildings. The first version was launched in 1998 and the specific version for Retail spaces in 2009, updated in 2016. Since then, more than 2,900 stores have obtained their LEED certification³.

There are some issues to be addressed in LEED® for Retail: New Construction; others in Commercial Interiors (tenant spaces) and LEED for Existing Building, in case of projects more focused on maintenance operations. Some projects fit the scope of only one LEED rating system, while others are eligible for two or more.

The LEED Green Building Rating System for Retail is divided in 7 categories: Sustainable Sites; Water Efficiency; Energy and Atmosphere; Materials and Resources; Indoor Environmental Quality, Innovation in Design, Regional Priority. Both, the design phase and the construction phase are scored, and the certification is awarded according to the following scale: Certified, (40-49 points), Silver (50-59 points), Gold (60-69 points) and Platinum 80 points and above.

In Sustainable Sites, there are indicators related to the urban planning (i.e. community connectivity, the use of brownfield, the existence of alternative public transport to minimise pollution, the chance to provide an open space to development footprint, etc.), others related to light pollution reduction, etc.

In Water Efficiency, the goal is to reduce up from 30% water use in the building, to limit or eliminate the use of potable water in landscape irrigation if it exists, etc.

Related to Energy and Atmosphere: the retail space has to demonstrate a minimum of 10% improvement on the proposed building performance for new buildings or a 5% improvement for renovations of existing buildings. They have to comply with the prescriptive measures of the ASHRAE Advanced Energy Design Guide for Small Retail Buildings 2006. There are prescriptions for refrigeration; it is encouraged to have on-site renewable energy and self-supply; and there is a need to monitor the energy consumption over time.

Taking in account Materials and resources: the prerequisite is to collect and store the recyclables instead of disposing them in landfills; to extend the life cycle of existing building stock, both structural or non-structural interior elements, to conserve resources, to reduce waste and environmental impacts related to new materials manufacturing and transport; to use materials with recycled content, or regional materials, certified wood in accordance with FSC’s principles.

When talking about Indoor Environmental Quality: LEED scores ventilated spaces (mechanically or naturally); to provide additional outdoor air ventilation, to improve occupant comfort, well-being, etc., to reduce the quantity of indoor materials contaminants or odorous, irritating, harmful like some adhesives or sealants; to provide a lighting and thermal comfort that promotes occupant productivity and well-being, including some points of daylight and views into the occupied areas.

Innovation in design means to achieve significant measurable performances in categories not addressed in the LEED 2009 certification, or to achieve exemplary performance (i.e. to double the credit requirements of LEED 2009).

Regional priority: to provide the achievement of credits considered geographically environmental priorities.

You can certify the Company (i.e. Architects’ Studios like Foster &Partners or Retail Design Collaborative and Studio One Eleven, holding Gold Level) or every single store.

Some Fashion brands have obtained their certified in many stores. To mention only some: Desigual (Barcelona, Platinum Level), Chanel (New York, Platinum Level; Dubai Mall, Gold Level), Nike (Potosi and Mexico Aeroport, both Gold level), Converse (Copenhagen and Amsterdam, Gold Level; Marratxi and Stockholm, Silver Level), Adidas (Paris, Gold Level), Zara (Mumbai, Gold Level), Balenciaga (Chongqing, Gold Level), Burberry (Taipei), Massimo Dutti (Valencia), Stella Mc Cartney (Dallas, Las Vegas and Beijing).

3. Good practices

Some brands have achieved the challenge of being coherent in their sustainable commitment both with products and the retail store itself. We have studied some cases, certified by RILA or LEED (Ecoalf, Zara and Stella McCartney), and another (Freitag), for its original way of recycling and reusing waste.

Ecoalf Berlin Flagship “sustainability, innovation, and design in an urban character”

In November 2017, Ecoalf opens its first Flagship Store in Berlin. It is a “resourceful and flexible store made of recycled material”.

Javier Goyeneche, founder of Ecoalf, presents his company well:

4 ECOALF NOTA PRENSA
“Ecoalf arose in 2009 from my frustration with the excessive use of the world’s natural resources and the amount of waste produced by industrialized countries. Ecoalf symbolizes what I believe the fabrics and products of the new generations should be, a new fashion/lifestyle brand that integrates breakthrough technology to create clothing and accessories made entirely from recycled materials with the same quality, design and technical properties as the best non-recycled products. That way we show that there is no need to use our world’s natural resources in a careless way”

They consider the future of sustainable fashion. “In five years, this fashion company specializing in apparel, footwear and accessories made from recycled materials has risen to the top of the sustainable fashion sector, while also managing to carve out a niche in the general industry.”

They started making fabrics with plastic bottles and now their goal is to create the first generation of recycled products with the same quality, design and technical properties as the best non-recycled products.

The fashion brand opened the last November its new 265 square-metre store in Berlin, specifically in Berlin-Mitte at Alte Schönhauser Strasse 5-5a/Rückerstrasse 3, with furniture, design and architecture made from recycled materials and completely renewable energy use.

The flagship store of the brand aims to show the process of creation of its textile products and to make the clients a part of the whole experience. They can discover, explore and interact with nature and impactful sea and ocean images. Since the beginning of the project, they wanted to convey to the client a complete sustainable experience. Their goal was to be equally environmentally responsible and resource-efficient in the use of resources for the whole store design.

“The building meets the highest standards of energy efficiency and the brand works with Greenpeace Energy for the systems in the Flagship store. Ecoalf is not only using renewable energy but is also working with recycled materials to complete the store, such as recycled wood, recycled algae for the carpet, recycled PET for the sofa... accomplishing a sustainable experience from the very beginning”

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7 ECOALF NOTA PRENSA
Ecoalf’s commitment is to generate a positive social and sociological impact. Sustainability is part of their value chain. In this sense, the materials of the Berlin store are recycled. In terms of the supply chain they tend to only be working with factories which we believe are cutting edge in both social responsibility and sustainability. For example, for the manufacture and creation of furniture they have used recycled chestnut wood (proceeding from disintegrated use). All achieved with manual cut and zero use of energetic consumption.

The project was design by the MATSTUDIO creative studio located in Madrid. His philosophy is established around the creative development together with the commitment with sustainability and care of the environment.

The Ecoefficient Store includes all the actions and technical requirements that the facilities must comply with in order to comply with our environmental efficiency and sustainability requirements in terms of construction (electrical installation, air conditioning, plumbing, lighting, materials, furniture), as well as the operations carried out in them, such as waste management, among others.

In accordance with their philosophy, they have built a store that complies with the standards established by the German Energy Efficiency Ordinance EnEV 2014. All this information is collected in the project carried out by MATSTUDIO and has been provided by Ecoalf.

The Building
- Low heat loss through the building envelope, thanks to the use of suitable insulation materials, as well as the use of glass with a low thermal transfer coefficient (U) of less than 1.3 W / m²K
- Reduced consumption of primary energy through the use of an urban energy generation system (Fernwärme) and energy efficient systems. Due to the combination of all these measures, this building offers a reduced primary energy demand.

Wood
Recycled Chestnut wood (proceeding from disintegrated use) has been used for the fabrication and creation of Ecoalf’s furniture. All achieved with manual cut and zero use of energetic consumption.

Iron
Unlike other materials, iron is 100% recyclable. At the end of the useful life of the product it can be reused an unlimited number of times with the same effectiveness.
Green Areas

Green areas are living elements, changing. This capacity for change must be kept in the projects. Generating green spaces inside the shop interior improves the quality of the space. Plants, by producing oxygen, absorb particles.

Lighting

*The entire store will be illuminated with LED technology.*

- LED lamps operate at low voltage and generate minimal heat, so they provide greater security to people during installation and during everyday use.
- **Savings:** A durability of 50,000 hours and up to an 80% saving in the energy bill.
- **Efficiency:** A 5 watt led luminaries achieves a light effect equivalent to a conventional 40 watt light.
- **Green energy:** Reducing carbon dioxide emissions, saving energy and protecting the environment. No light pollution. Working with Greenpeace energy.

The Berlin store complies with all the initiatives that the RILA (Association of Retail Industry Leaders), typically 'retail' sustainability programs start with a focus on their own operations, emphasizing the reduction of water and energy in their stores and distribution points considered sustainable within retail practices.

- Use of recycled / recyclable material packaging.
- Corporate recycling efforts and energy efficiency measures.
- Use of recycled paper for printing.
- Accounting systems and electronic invoices.
- Use of low emission vehicles in the company's fleets.
- Use of LED lighting at points of sale.

**Inditex: Objective 2020**

*“Zara Korai The eco-efficient Store”*

The Zara store in Korai, Athens (Greece) is the first Inditex’s prototype of eco-efficient store. Eco-efficiency is a primary consideration in how they design their new stores, their 2020 objective is renovate all their existing to comply with these efficiency targets.

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“To date, we have implemented these targets in 79% of our total store footprint (5,068 stores). Our flagship eco-stores are beacons of best practice throughout our business, and one of the most visible indicators to our customers of our commitment to environmental sustainability.”

Our flagship eco-stores are beacons of best practice throughout our business. “Around 29 of our flagship stores have full LEED or BREEAM certification, two of the most respected benchmarks in environmental standards for green buildings.”

The Korai store has become a reference store in terms of energy efficiency, respect for the environment, reduction of environmental impact and waste minimisation thanks to the design, construction, management, maintenance and refurbishment of stores.

“At the eco-efficient steps implemented at Zara Korai allow for a 30% reduction in energy consumption as compared to the average annual consumption of a store, thus saving upwards of 150 Tn of CO₂ emissions per year.”

On the Inditex website they explain the keys for which they have managed to reduce the consumption of energy and water in their eco-stores without affecting the customer experience:

- “Automatic motion sensors in low-use areas dim lighting by 80% when no one is present.”
- “Using the most sophisticated climate control systems available, zoned thermostats prevent peaks in use and are automatically adjusted according to occupancy and sunlight, typically making savings of around 40% more than standard systems.”
- “Centralised monitoring and control of electricity use allows the optimisation and reduction of energy consumption.”
- “Automatic electronic air curtains at store entrances regulate temperature stability, with energy savings of up to 15%.”
- “Speed-controlled escalators slow down when not in use to save energy.”
- “LED lighting lasts four times longer on average than ordinary incandescent lighting.”

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11 PDF web
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“Lighting programmes dim lighting depending on tasks and time; for example, 66% of lighting is switched off during cleaning and deliveries, and focused on the cash desks for end-of-day operations.”

“Store-by-store analysis of climate, location and ambient light determines the most efficient levels of shop-window backlighting.”

“Controlling water flow rates and pressure in bathroom facilities and installing grey water recovery systems reduces water consumption.”

Over the last few years, the concept of sustainability has been present in the activity of the Group, the environmental variable is the key in the global strategy of Inditex. “Conscious that its activity takes place in a worldwide geographical environment and with implications in different areas of and environmental nature, Inditex works to reconcile economic growth, respect for communities in which its activity takes place and protection if the environment”¹³.

Freitag. Flagship in Geroldstrasse 17, Zurich.

Freitag is a Fashion Brand specialised in bags and accessories, launched in 1993 by two Swiss designer brothers: Daniel and Markus Freitag. They began recycling used truck tarpaulins, discarded bicycle inner tubes and car seat belts to develop their first bag. They looked for repellent water materials and got inspiration from the heavy traffic they saw from their apartment not far from the railway. Now, they make bags (each one unique, as it comes from a different recycled tarpaulin), accessories and garments.

The Company has 150 employees and more than 400¹⁴ selling points all around the world. The Brand own 23 stores. 10 of them have been projected by the Swiss architects Annette Spillman and Harald Echsle, always paying attention to sustainable issues.

The flagship store in Zurich is an example of eco-design building: the result of assembling nineteen cargo containers, discarded from use in Hamburg’s harbour. They have the shape of a big tower, a “bonsai sky-scaper” of 25 meters. The basis are containers with the space for the retail store with large window openings that provide natural light. The containers are stacked and mounted with fastener elements reminding the shipping industry. The building is an homage to the eco-friendliest means of transport (train, ship), and the products sold are made of recycled materials from other means of transport (truck, car, bicycle).

¹³ PDF web
Not only this store, but the others designed by the same architects have fulfilled the environmental criteria of the brand. Even the V30 shelves where the bags are exposed, designed by Collin Schaelli in 2009, won the Design Preis Schweiz 2009. Like the bags, the shelves are made of recycled materials (plastics), and meet applicable standards of durability and sustainability.

The new store in Milan (2017), Viale Pasubio, is located in an ancient industrial outbuilding, whose traces and history are recognizable. The old structure is visible in some points. There is a garden area.

The store in Basel (2016), Grünpfahlgasse 4001, reinforces the idea of community and collaboration. The store is in the Café quartier and it has a permeable border between shop/coffee that allows different uses (conversation, work stations, writing desks) and more involvement with the values of the brand.

The store in Tokyo (2013), Jingu-mae, Shibuya-ku 6-19-18, is located in Shibuya, one of Tokyo’s busiest shopping and fashion districts. The site itself provided the rare chance to connect two streets and provide shopfronts on both sides. As a landmark, a container is placed in front of one of the entrances. It is a reference to the brand philosophy and flagship store in Zürich. The shop layout idea was to create a ‘Freitag Street’. Inside the store we used streetlights from Tokyo to mark the street and guide visitors through the shop. There are five sales points each offering different services and products. These include a repair centre, bicycle rental and a shop for the unique Freitag reference series. Raw materials and specific objects convey the idea of the brand and create a unique shopping experience.15

The store in Seoul (2011) is located above a café and it is interwoven into the fabric of the building. The concrete construction is open. The store is organised, as the others, with V30 wall shelves.

In Wien (2011), Neubaugasse 26,) and Berlin (2009) (Max-Beer-Strasse 3,) the stores fits into the structure of the previous industrial buildings. In the case of Berlin, in the ground floor they discovered elements of the dye-works including a thoroughfare with large curbstones. One of the aspects of eco-friendly buildings consists on putting in value recovered tools or architectural pieces inside the derelict buildings.

Stella Mc Cartney

Stella Mc Cartney is one of the leader sustainable Fashion Designers. The mission statement of the brand is to be “committed to operating a modern and responsible business” and “to make luxurious products in a way that is fit for the world we live in today and in the future: beautiful and sustainable”\textsuperscript{16}.

This mission involves social conditions of the people making clothes, materials employed -always innovative-, and the reduction of impacts with some policies, circularity and the design of their stores and offices.

They have created a Green Guidebook to foster sustainability in their stores. It is updated each year.\textsuperscript{17}

23 Old Bond Street Flagstore in London has been designed by Italian architects Mario Bellini and Angelo Mangiarotti.

The project creates a luxury space using handmade, organic and sustainable sourced elements. So, the store is absolutely coherent with the brand. As the designer says:

\textit{“Everything that I do is a commitment to sustainability and to being responsible and ethical”}.\textsuperscript{18}

-Furniture

The wood used is FSC certified. Some pieces of furniture are made of recycled materials, with reclaimed timber sculptural plints; papier-maché from their waste in their office is reused as decorative panels at the first floor; all their packaging and paper is either certified by FSC or from recycled sources.

They use biodegradable mannequins made by BPlast \textregistered: a bioplastic material composed of 72% sugarcane. They are made from organic substances and reduce CO\textsubscript{2} emissions.

\textsuperscript{17} \url{https://www.stellamccartney.com/experience/en/sustainability/our-stores-and-offices/}, accessed 2018/09/03
- **Green Areas**
The store has a green area at the ground floor: black limestone from Durham, rocks and moss and thyme, among other plants. There is an outdoor urban garden on the first floor with seasonal plants.

- **Air**
A cutting edge technology (based in ventilation system with nano-carbon filter) removes more than 90% of the air pollutants and harmful gases as nitrogen dioxide.

- **Lighting**
Apart from the Flagship store in London, 86% of their stores use LED lighting, with savings up to 75% and lasting 25 times longer than tradition luminaries. Their aim is to achieve by 2019, 100% of their stores lit by LED.
They have now 48 free-standing stores.

- **Green energy:** In the UK, all the stores are powered by wind energy.

**4. Discussion**
The state of the art and the cases studied reveal there is room for improvement in the management of the sustainable strategy in retail stores.
It seems to be easy to achieve for the bigger brands (according to the number of LEED certifications they have); when the brands uses to hire the same architects to design their stores and last but not least, where is a clear long-term oriented development.

**5. Conclusions**
This analysis aims to show the importance of the eco-efficient stores and how the brands manage to develop a sustainability strategy throughout a clear long-term oriented development.

Firstly, the academic conversation focused on this topic is not yet enough developed. The sources for this paper have been webpages of brands, certification body or associations.

On the other hand, costumers have no references of how sustainable the store where they buy is. Brands should try to show more what they are doing to change, in order to engage their customers.
As seen, the storytelling of the sustainable or eco-friendly production promoted by the brands should have a parallel storytelling to achieve a sustainable or eco-friendly consumption. There is a new path to education and training that would lead to lifestyle’s changes.

It is essential to highlight some of the concepts that affect more in the sector. Sustainability of the materials they use, their waste, energy or water usage among others. It is important to emphasize in all aspects that affect the store, for example, use of recycled material packaging, corporate recycling efforts and energy efficiency measures, use of recycled paper for printing, accounting systems and electronic invoices, use of low emission vehicles in the company's fleets, use of LED lamps operate at low voltage and generate minimal heat among others.

Therefore, these ideas finally reflect the importance of the Identity of sustainable fashion brands at the stores and the relevance of the sustainability in all the chain value.