Foster eco - innovation and social responsibility in the T&C industry

Integrated approach to the sustainable textiles and clothing market analysis
Good practice - Lodzkie Region

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In Poland the awareness of the ecological and especially social problems in Textiles and clothing industry is still quite low.
Comparing attitudes to socially responsible consumption in Poland (a new-consumer country) and the UK (a long-rich country) The greatest differences were found in consumer attitudes requiring increased activity and conscious involvement.
However in last few years several projects and initiatives have been undertaken to rise consumers’ knowledge, awareness in this area.

In the same time there were realized many projects dedicated to the supply side of the market – focusing on more eco-friendly technologies and products.

The experience gained in these projects confirmed that integrated approach to the sustainable textiles and clothing market analysis is needed– the analysis of immediate connections and influences of: the demand side of the markets (consumers), the supply side of the market (producers), legal framework and cultural impact.
The world of textiles and clothing

- Fibre
- Thread
- Fabric
- Finished Fabric

**The Textile Industry**

**The Chemical Fibre Industry**

**The Apparel Industry**

**Retail**

- Clothing (Fashion/Function)
- Interior & Home Textiles
- Textile Services

**Textile applications in**

- Transport
- Construction
- Furniture
- Healthcare
- Agriculture etc.

**Service Providers**

**Chemical Industry**

**Non-conventional Textile Processing**

- Distribution / Retail
- High street
- Supermarket
- Indep. store
- Online shop

**Private Use / Consumption**

- Hotels
- Hospitals
- Public Services

**Disposal / Recycling**

- Industrial Use / Production

**in addition:**
- machinery and production equipment suppliers
- suppliers for testing and control equipment
- software providers; other services and intermediaries
Integrated approach

Legal Framework

Supply manufacturers

Socially responsible textiles & clothing market

Demand consumers

Values, Attitudes, Cultural impacts

strategy for solving ecological and social problems of textiles and clothing industry
Why?
Ecological and social problems of T&C industry are directly or indirectly arising from snowballing consumption.

Manufacturers may use new designs and technologies to minimize the impact of a product on the environment, but their efforts are pointless if consumers do not buy more sustainable textile and clothing products and do not change their consumption habits.
**Lifecycle stage**

- **raw materials**
- **fibre production**
- **clothing production**
- **packaging**
- **distribution**
- **retail**

**Key inputs**
- energy
- water
- chemicals
- labour

**Key outputs**
- CO2
- waste

**Consumer impact**

- **Indirect** before purchase phrase
  - seeking information
  - rational clothing selection
  - abandoning the purchase of unethical apparel
  - recommending the sustainable products
  - taking part in sustainable consumption campaigns
  - following slow-fashion movement

- **Direct** post purchase phrase
  - rationalization of the laundry process
  - extend the life of clothing
  - dispose of used clothing
  - lease clothes

**Socially responsible supply chain**

- Sustainable raw materials (biodegradable, renewable)
- Eco friendly technologies
- Fair trade
- Workers' rights
- Working conditions etc.
- Ecological and social certification and labels

**Manufacturer impact**

- Sustainable raw materials (biodegradable, renewable)
- Eco friendly technologies
- Fair trade
- Workers' rights
- Working conditions etc.
- Ecological and social certification and labels
Figure 1  Analysis of life cycle energy consumption for a pack of men’s cotton briefs (104.9 kWh)
Good practices: projects dedicated to the supply side of the market

Lodz University of Technology – The Department of Material and Commodity Sciences and Textile Metrology was a leader, partner or contractor of many projects in the area of eco-innovation and social responsibility in the T&C industry:

Technology/product orientated projects and initiatives in the area of social responsibility in T&C examples:

“BIOMASS – Utilization of Biomass for the Preparation of Environmentally-Friendly Polymer Materials” The “Biomass”

“BIOGRAFTEX - Biodegradable fibrous products”

Biodegradable polymers
project “Biogratex has been implemented to develop a technology for manufacturing textiles from biodegradable polymers. The project is set to deliver and then commercialise modern and innovative:

- prototypes of medical products such as consumer dressings, specialist dressings, and resorbable and implantable medical products;
- prototypes of filtering products,
- prototypes of hygienic products and of products used in hospitals,
- a wide range of prototype products for agriculture,

utilising biodegradable polymers, both readily available in the market and those developed by the project itself.
The aim of the project is utilization of various kinds of plant biomass and textile waste materials by their transformation with biotechnological methods, involving either enzymatic or microbial processes, into fibrous polymer materials.

The intermediate products in those transformations are: cellulose nanofibres, tactical polylactide and aliphatic-aromatic co-polyesters, which all are known to be important raw-materials for the production of biodegradable fibrous materials as well as other kinds of biodegradable polymer composites.
The “Biopol” project has been designed to develop innovative technologies enabling the processing of renewable raw materials for new ranges of products based on biodegradable polymers.

It has been assumed that the new solutions will be licensed to future users free of charge.

This is a chance for Polish manufacturers to become independent of foreign suppliers of biodegradable polymers.
All three projects constitute a solid technological base for expanding the production of biodegradable polymers in Poland, which is necessary to manufacture a wide range of innovative biodegradable products having a variety of uses (agriculture, hygiene, medicine, and filtration). However, the base is only one element likely to drive the future development of the market in Poland. The other elements are:

- Polish manufacturers being interested, ready and financially capable of commercialising this type of innovative products;

- interest in eco-innovations on the part of final users, i.e. Polish consumers, driving demand for biodegradable products.
Manufacturers indicate that the main barriers to the implementation of biodegradable fibrous products in Poland are the following:

1. Prices of raw materials (biodegradable polymers cost twice as much as commonly used polypropylene),

2. The lack of domestic producers of biodegradable polymers resulting in
   - the unavoidable dependence on foreign, frequently monopolistic suppliers,
   - the risk of occasional shortages in the supply of raw materials,
   - price instability caused by exchange-rate fluctuations.

3. Low awareness and sensitivity of the public to environmental hazards involved in the manufacture of textile and clothing products translating into limited demand for these products in the Polish market.
What can we hear from the Polish manufacturers?
For the Polish consumer only the price matters...
For the Polish consumer ecology and ethics are not important at all...
Polish consumer will not appreciate the ecological and social values..
Polish market is not ready for sustainable textiles
Are such opinions justified?
The scarcity of studies on socially-responsible consumption in so-called new consumer countries characterized by slowly developing ethical consumer movement;

Almost all knowledge about socially-responsible consumer behavior that has been amassed to date is based on studies on the long-rich countries, mainly those leading in ethical consumer movements, such as the Fair Trade movement in the United. Little empirical evidence has been gathered so far on countries where ethical consumer movements are in the fledgling stage, e.g. Poland

Few studies analyzing consumer behavior vis-à-vis the amount of literature exploring sustainable development and corporate social responsibility of textile and clothing manufacturers.
Although consumers are extremely diverse community we can identify some homogeneous groups/types among them.
The typology of Polish consumers based on the motivations and criteria they apply to choose clothing, including ecological and social criteria.
Biggest obstacles to purchases of textiles manufactured by socially responsible producers [%]

- No information: 55.6%
- Lacking or limited trust: 32.8%
- Higher prices: 22.4%
- Limited availability in Polish market: 20.0%
- Lower quality: 10.4%
- Limited attractiveness: 6.8%
- It's difficult to say: 5.2%
- Other: 8.9%
Challenges

- Educate
- Inform
- Differentiate
- Increase confidence
Consumer orientated projects and initiatives in the area of social responsibility in T&C:

„Fashioning an ethical industry” our role in the project:

In the activities related to the project „Fashioning an ethical industry” we joined marketing academic discussion club. It was first academic discussion club in polish University (Technical University of Lodz) that was active in the field of so important ethical problems.

- 17 -18 November 2008 year workshop „Fashioning an ethical industry” for the students. Coaches introduced us to the problem of fashion and ethics.
- Participation in the Conference „Fashioning an ethical industry”-
- Speech on “Trendy and ethically in the clothing industry. What we students can do?”
- Nationwide scientific conference "Trendy and ethically in the clothing and textiles industry" – March 2009
- Publication after conference " Ethics dilemma on the market textiles and clothing" which is valuable collection of articles about ethical fashion.
- We invited wandering exhibition of photographs „Fashioning an ethical industry” - to illustrate working conditions in the clothes factories.
- Distribution of information materials among students and teachers about ethical fashion.
New great process on communicating Sustainability in Textiles - cooperation with IKEA Retail Poland.

Project aims to answer following questions:

- How can we talk an understandable language about sustainability in textiles?
- How do we understand it in Poland and what is important for Polish customers.

The cooperation is about giving value, and the value is not money. It is about getting engagement and dialogue with students who want to get to know IKEA`s textiles better, want to discuss and learn about sustainability aspects more (especially that they will build the textiles market as professionals in the future)
Thank you for your attention
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