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Presentation of the GVC in the Textile Clothing Environmental Standards

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Abstract

We have shown that environmental standards are becoming a critical issue for TH Industries. This sector is particularly concerned that, firstly, many substances are used throughout the manufacture of textile products, and on the other hand, it touches closer to consumer health. Since 1995 we began to focus on the links between trade and the environment. The objective is to determine the impact of environmental regulations restrict the use of azo dyes imposed by developed countries on exports from developing countries. In 2005, REACH obligations, regulatory framework for chemicals affect European producers and importers that have essentially relations with developing countries in the GCV. The latter include tests on chemicals and the requirement of certification. Tunisian producers have to bear the cost of testing if their input suppliers are eco-certified. This is in most cases a sourcing says "forced" imposed by outsourcers does not give additional freedom of sourcing to fabricators. In this case, co-contracting is far from autonomy.

Keyswords: global, value, chain, management

Several studies have been devoted to the influence of social norms on the global value chain (GVC) of textile and clothing (Vercher (2010), Papalcuer (2008) and Gereffi et al, 2001b). The environmental component is typically associated in their definition of CSR and corporate codes of conduct. Nevertheless, few of them were interested in its role in the GVC. According Gherzi (2004), the pressure caused by possible labeling of textile reinforces the threat of disappearance that already hangs over any part of the textile industry that can't afford to modernize. Thus, the gradual ecolabel of environmentally friendly producers is inevitable. It will be a criterion for selecting suppliers by the principals. The valuation of existing standards, such as those of the Oeko-Tex, implies optimal organization of the production units and is aimed at more efficient of them. However, companies must meet the costs of certification. In the case of the Oeko-Tex, these are mainly related to inputs and chemicals as well as compliance tests. According to (Gereffi and Frederick, 2009) "Imposing new, non-tariff barriers, does not appear to be a significant trend Compared to the total number of shares for all industries or for the TA industries.The issue of social and environmental compliance is Likely to grow in importance "P332. Social and environmental compliance is of utmost importance for the sector, due to the labor intensity of the apparel industry and the environmental impact of the textile industry. According to Gereffi (2002) conception, governance is neither static nor exclusive in global industries. The emergence of new actors and new economic functions may be supported by continuous slip of power. The theory of the GVC is a multidimensional construct that includes firms located in different links, but also those of NGOs working in the GVC to change the social and environmental conditions (Palpacuer and Balas, 2010). Based on this concept of governance, Vercher (2010) integrates social and environmental standards in the institutional dimension.

1. Mandatory standards

Environmental standards aims are health and safety of consumers. The main standards are the prohibition of azo dyes and recently REACH.

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a) Reach

The genesis of REACH was the launch of a White Paper by the European Commission in 2001, entitled "Strategy for a future policy on chemicals", which aimed to reform regulatory instruments. Six years later, in June 2007, REACH, the regulation on the registration, evaluation, authorisation and restriction of chemicals, entered into force and became the regulatory framework for chemicals for all EU countries. Textile industry - Apparel is particularly concerned that, firstly, many substances are used throughout the manufacture process of textile products, and on the other hand, it closely touches the consumer. REACH obligations concern European producers and importers who essentially have relations with developing countries in the GCS. In response to a recommendation of the high level Group on textiles and clothing, the General directorship Enterprise and Industry has commissioned a thorough assessment on the impact of REACH on the European Textile - Clothing. Thirteen companies located in several European countries participated in the study; four are suppliers of textiles and new chemicals and are finishers. Among these, seven are SMEs and two importers of Asian textile intermediates.

The study demonstrated that finishers face the lack of skills to achieve compliance with REACH obligations. The use of external expertise has increased their costs. Finishers may delegate this task to chemical suppliers. However, they fear concerns about privacy and exposure to their suppliers with technical expertise. In addition, most textile finishers are SMEs that do not have the necessary financial and human resources to deal with the administrative requirements and adjustments required to REACH. As certain substances and preparations should be withdrawn from the market, textile finishers must replace them and bear the associated costs. These operations require between 3 to 18 months. The deadlines are not adapted to the requirements of fashion and apparel consumption cycle as well as their customers' production cycles downstream. The costs of reformulation can reach up to 300 000 euros. For chemicals suppliers, replacing a substance removed after REACH will take between 1 to 9 months and costs 5000 to 100 000 euros per new product. Manufacturers who import products have the same obligations. Indeed, they must know the chemical inputs present in their articles. The Euratex stressed the obligation to monitor the worrying chemicals in imported products and their compliance with REACH requirements.

b. Voluntary Standards: ecolabels

The three studies by the ECOEFF (2002; 2004; 2007) identified 77 eco-labels which relate to the Textile - Apparel. Almost all of these programs are developed in the PD especially European countries.
The comparison of the different programs shows that Oeko-Tex 100 with 93000 certificates (in 2010) is by far the most common in the international market.

2. The action of environmental NGOs Greenpeace case

In July 2011, Greenpeace launched a campaign called "DETOX". The environmental group has undertaken a series of investigation on the supply of major clothing brands. It has published two reports, entitled "Dirty Laundry". These reports have revealed that the clothes sold on the international market by big brands contained banned chemicals (nonylphenol ethoxylates). These chemicals are used in the textile industry as wetting agents, emulsifiers or detergents. The survey in seventeen countries focused on the analysis of several items of clothing, usually with direct contact with the skin, with the logos of fifteen clothing brands. These brands are: Abercrombie & Fitch, Adidas, Calvin Klein, Converse, and Gap, G-Star RAW, H & M, Kappa, Lacoste, Li Ning, Nike, Puma, Ralph Lauren, Uniqlo and Youngor.

Production sites are located in developing countries: China, Bangladesh, Cambodia, Egypt, Malaysia, Sri Lanka, Turkey, Pakistan, Philippines, and Vietnam. The products are tested in stores in several PDs mainly European and other countries like Russia, Thailand and Argentina. Of the 78 articles analyzed, 52 contained chemicals which are under the tolerated threshold. Aware of the issues, these leader firms have reacted after the publication of two reports. July 25, 2011, Puma is committed to the elimination of all releases of hazardous chemicals throughout their supply chain by 2020. For its part, Nike responded in August 17, 2011 after the broadcast of the second report. Other brands like Adidas and Lacoste and later G-Star Raw, Uniqlo and the Chinese brand Li Ning made decisions in this direction. The DETOX companion focuses on leader firms and not on their subcontractors. Indeed, it stresses the responsibility of these companies in the control of the terms of Textile Clothing.

The world's leading environmental certification in the Textile Apparel, Oeko-Tex, adjusted the list of toxic substances to be analyzed in the light of two reports published by Greenpeace. The new list considers the presence of substances listed as a requirement for the ecolabel Oeko-Tex100. Many products will be included from 2012 and from April 2013, companies will be required to comply with the limits defined in all the certification process. Environmental Certification: opportunity or obstacle? Gereffi and Memedovic (2003) and Gereffi and Frederick (2010) describe the main stages of the industrial ascent in terms of Textile - Clothing.

a) OEA: Original Equipment Assembly

It is an industrial form of outsourcing in which imported inputs are provided by outsourcers to subcontractors for assembly. These outfitters are mostly located in developing countries in the context of export processing zones near major ports. In general, they are not involved in the design, but they are concerned about manufacturing. They are simply paid the processing fee, and not the price of the garment. These assembly operations do not add value to these countries given the commercial context in which they are applied.
However, this step can be the beginning for many developing countries in that it allows connecting with the brand manufacturers and distributors.

b) OEM: Original Equipment Manufacturer

The provider focuses on the manufacturing process. He/She is capable of sourcing and fabric funding and accessories. He/She could provide all production services, finishing and packing for delivery to the dealer, but he/she has no control over the distribution. This type of contract requires suppliers to comply with the designs and specifications dictated by the customer. Thus, the client may require the use of certain raw materials. It is from this point that environmental standards can play an important role since these standards are mainly concerned with chemical inputs and used tissues. The original equipment manufacturing, as well as the stages after, ensures the supply of raw materials and therefore compliance with these standards.

c) ODM : Original Design Manufacturer

This model focuses on design rather than manufacturing. A full package garment supplier performs all the steps involved in the production, including design, purchasing fabric, cutting, sewing, finishing, packaging and distribution.

d) OBM : Original Brand Manufacturer

This model focuses on the brand rather than the design or manufacture. It is is a form of an industrial lift to advance to the marketing of own brands.
We will analyze the role of environmental standards in the opportunities of an industrial comeback for the Tunisian case. Indeed, leader firms have considerable influence not only on manufacturing sales, but on industrial recovery strategy. These are faced with barriers when it comes to progress in the design, marketing, developing their own brand and marketing (Gereffi, 1994 1997.1999, Bair and Gereffi 2002 and Gereffi et al., 2002). For Gereffi (1999), leader companies use barriers in entry to generate rent situations in value chains dominated by buyers. It is based on a classification Kaplinsky (1998) to distinguish five sources of rents:

- **Organisational Rents**

It refers to a form of expertise in intra organizational process, which came mainly from Japan, involving a set of new organizational techniques such as just-in-time production and control of total quality, etc.

- **Relational Rents**

It reflects several types of inter-firm relationships, eg those between the major assemblers to small and medium-sized firms, building strategic alliances, creation of clusters.

- **Product and Marketing Rents**

It is associated with the commercial policies implemented by countries: eg the quota system.

- **Infrastructural Rents**

It refers to the yields of product differentiation and firms following a recognizable brand name in the markets.

- **Technological Rents**

It is based on an asymmetry of access to the production process. Environmental standards are listed in the technological rent. Indeed, the leader firms may adopt environmental standards that give them an advantage over their competitors. They are involved in the phase of developing the criteria of eco-labels and thresholds of chemicals. International competition has caused a steady decline in prices and an increase in the volume of production and technological skills required by buyers. These seek new sources of supply which increases risks of excluding "small" suppliers. In addition, developing countries are in constant competition to attract foreign investments and contracts with global brand owners, leaving many suppliers with few resources in the chain. The result is an unequal sharing of the total value added along the garment Conditions for leader firms.((Gereffi et Memodovic, 2003; Gereffi et Frederick, 2010). Especially since the objective of the leader firms is to grab the most paid links in the GVC, it seems natural that they develop strategies so that other firms cannot have access to. They generally entrust to subcontractors the least beneficial activities and low-tech (Palpacuer, 2000).

In the same vein, Humphrey (2004) assumes that the leader firms, for fear that their suppliers are potential competitors, they manage to remain heavily dependent vis-à-vis them. They are opposed to the improvements that allow their subcontractors to acquire enough power to bypass and go directly to final customers. The efforts of progression are tolerated by the leader firms if they are not likely to threaten the most paid links. Accordingly, environmental standards can be a way to control subcontractors and a reinforcement of the leader firms power in the garment conditions of textile-clothing. Once outsourcers take the decision of being certified, the original equipment manufacturer (OEM) will have to do it. This demand wills intricates their sources of supply of raw materials. These OEM will have lesser choice in supply their profitability**.** Moreover there will be maintenance toward a dependency on European textiles. The aim to preserve the European textile industry can be affected by environmental standards which can replace the **TPP** role or the commercial protection of the branch upstream**.**

II- the environmental standards effects on the industrial ascent of textile-clothing: Tunisia

In the Tunisian case, competition is not only limited to the wage premium, but mostly to several non-price factors including respecting environmental standards. Actually, ecological certification is an asset to sell in the European market, in the long run it will be a necessary condition. Respecting environmental standards can be a key element in the launch of Tunisian brands and in the development of the upstream sector**.** The exploitation of the "negative" image of Chinese products in the human ecological domain and the non-compliance of environmental standards will offer **a niche market** of Tunisian exporting and allows creating a gap with their competitors (Zaafrane, 2000). Aware of environmental regulations importance, Tunisia launched an ecolabel which covers textile-clothing sector in 2005. Meanwhile, Tunisian exporting enterprises are concerned by international ecolabels like Oeko-Tex. Tunisia is the country is least eco certified among the first five suppliers of the EU. These enterprises have only 32 Oeko-Tex certificates, in 2010. Indeed, they are specialized in the assembly (OEA). According to Oeko-Tex adoption conditions, these enterprises do not have to be certified so that the final product has to. On the other hand, environmental standards can disable Tunisian enterprises move from OEA to OEM. Environmental standards complicate co-contractors task of **looking** for inputs and compliant_fabric. In assembly, tissues are often cut by outsourcers then dispatched to OEA. The latters assemble them to make clothes that they deliver to outsourcers. In order to avoid that themselves support supply costs and stock, distributors develop co-contracting formulas. It's the **façonnier** who buys the material, generally depending upon specified techniques précised by a set of specifications.

Thus, the co-contractors (OEM) will have more chance to succeed in a complete sector in the measure that they can find their inputs in their countries. In the absence of a developed textile industry in Tunisia, the OEM are obliged to look for foreign suppliers without getting more information than their outsourcers. In this case, they ensure funding the working capital and handle the charges which results from. Outsourcers require Tunisian manufacturers for the list of their suppliers. Platforms have a limited autonomy in fabrics sourcing material. (CETTEX, 2009). It is mostly a sourcing called "**contraint**". Decisions about the material are directly controled by outsourcers who impose their technical choices through a set of specifications. These choices include tests on chemical materials and the requirement of certification.

Tunisian manufacturers have to handle the tests costs if their input suppliers are not eco-certified. Moreover, European outsourcers specify the fabric supplier that they have already selected. It's then to the outfitter to negotiate the chosen supplier about the best price.

The latter has not necessarily to be the best in offer and a competitor in terms of price in the international market. This co-contracting model imposed by outsourcers does not offer outfitters a choice to a supplementary sourcing. In this case, co-contracting is far from being autonomy. In the same vein, Chaponnière and al. (2005) think that tariff advantages given to developing countries are offset by the additional cost related to the sources of supply constraints. In a non-integrated sector in Tunisia, the costs of inputs have a decisive role in the survival of the co-contractors. They are deeply paralysed by the origin rules and environmental regulations and have to get supplies in intermediate products coming from developed country the sourcing of raw material remains widely dictated by outsourcers and geographically centered on Europe. According to Limantour (2008), Tunisian manufacturers have claimed for years that they benefitted from the simple transformation. This rule offers the possibility to export to the European market duty free clothes made of a tissue coming from any origin. Turkey could be an interesting alternative in material sourcing. Notwithstanding, the benefits of the free trade agreement between tunisia and turkey have not significantly changed Import part coming from Turkey do not reach 5 % to, for example, 33 % from Italy or 26% from France in 2008. Remains to know, if Turkey can ramp up and gradually, replace traditional suppliers controled by European outsourcers. Access to Turkish market can improve if a number of measures are taken in fund, maritime connections, representations etc. Turkish fabric supplies are very competitive in terms of price and quality. On the other side, time limit and respect of environmental standards are a problem. Indeed, deadline for a prototyping small order despatched with **DLH** or chronopost is of 1 to 2 days from a European country but 5 days from Turkey. In addition, there is no direct link cargo between Tunisia and Turkey. A landing in Athens or Alexandria are often imposed which extends the transporting time which is between 7 to 10 days. Turkish suppliers do not know Tunisian outfitters, their demands in terms of payment deadlines **which** are marked by an extreme caution.The launch of a Tunisian –Turkish commercial room can facilitate contacts or afford access to supplier's data.

However, according to the sector's professionals, Turkish textiles too will have problems related to environmental regulations imposed by the EU. Turkish enterprises reached 873 certificates in 2010. If the Turkish suppliers are not certified, Tunisian co-contractors are obliged to support the tests costs and certification charges of imported inputs by Turkey. Tunisia has tried to have an accreditation Oeko-Tex for the CETTEX. Their demand has been refused. Enterprises which hope to have a certification are obliged to go through a laboratory (CITEVE) in Portugal which raises the test costs. Analysis required by certification need generally time limits which are not negligible. Samples have to be tested in Europe which results in a waste of time and money for co-contractors. In Tunisia, finishers are the most eco-certified with 15 certificates. The finishing is the activity branch the most concerned by environmental regulations. Procedures used are very pollutant and big consumers of chemical products and dyes mainly in washing processe, dyeing and laundry**.** Proportional environmental regulations, obligatory or voluntary, touch directly this branch. Finishing enterprises are deeply concerned and have more interest in ecolabels. Concerning other activities as accessories suppliers, promising activities in the Tunisian case, environmental certification is seen in two ways depending on the enterprises:

It is an obligation which increases production costs. Charges related to environmental certification are not charged in the sale price. Customers do not adjust their purchasing price after environmental certification. In the contrary, they are more and more demanding in terms of price, of deadlines and of quality according to Bouton enterprise manager. Environmental certification has not allowed to diversify the enterprise customers, but only maintained former ones. Environmental certification is an advantage for successful enterprises like the GRIFFE. This enterprise is specialised in labels and is the only Tunisian accessories manufacturer which owns a showroom in Europe, Morroco, Egypt, Jordan and Romania. According to the head of environmental issues, ecolabel is an opportunity that should be seized to attack international markets. Famous brands and distributors require this certification which can discard competitors who are not certified. Certification fees are not important and can be compensated by new orders. Manufacturers in developing countries, the question arises mainly in the finishing and spinning. These branch upstreams are the principal users of chemicals in different treatments of the manufactured articles: dyeing, bleaching, fading, serigraphy etc.

After the application of REACH, problems of supplies in inputs emerged. According to the study of impact, this regulation is difficult to apply and also not well-known by European manufacturers. Developing countries risk the development inhibition in the field. An importer of the EU having an activity of negotiating finishing clothing have to know if its importations contain worrying substances.

The importer can get the information from their suppliers**.** On the other hand, the importer has to measure the concentration of substances to their charges and to report them. In this case, foreign manufacturers risk a foreclosure effect. If the tolerated thresholds are exceeded, the importer should change suppliers or the latters should handle the change in the substances prices. Developing countries exporters should have a precise knowledge of the chemical substances of their product. And they should be equipped with materials to realize the evaluation necessary tests. Knowing that the recording of chemical substances is done in the EU, developing countries manufacturers risk to disclose the technical parameters of their productions. The rise of exported textiles prices using compliant chemical substances can affect competition of many firms located in developing countries. If export contains products that are compliant to REACH, firms of developing countries should find **s**ubstitutable substances. In a blocking case, with reference to REACH **r**egulations, exporting firms can lose their shares in the European market. The prospection of new markets will certainly result in unsecured costs and results.

Conclusion

We have shown that environmental standards are becoming a critical issue for TH industries. This sector is particularly concerned that, firstly, many substances are used throughout the manufacture of textile products, and on the other hand, it touches closer to consumer health. Since 1995 we began to focus on the links between trade and the environment. The objective is to determine the impact of environmental regulations restrict the use of azo dyes, imposed by developed countries on exports from developing countries. In 2005, REACH obligations, the regulatory framework for chemicals affect European producers and importers that have essentially relations with developing countries in the GVC. On voluntary standards, there were 77 ecolabels that address the TH. Almost all of these programs is developed in the PD especially European countries. NOGs have also mobilized in this framework. Greenpeace campaigns have undertaken a series of investigations on the supply of major clothing brands. Several international brands (Puma, Nike, Adidas, Lacoste, G-Star Raw, Uniqlo ... etc.) Are committed to eliminating all releases of hazardous chemicals throughout their supply chain. The aim of this NOG is to focus on pilot firms and not on their subcontractors. Indeed, it stresses the responsibility of these companies in control of the Terms of TH.
In the Tunisian case, one of the main EU suppliers, the integrated route and not handicapped by the absence of upstream activities, input costs have a decisive role for the survival of co-contractors. Tunisian garment manufacturers have claimed for many years to enjoy the simple transformation. This rule provides the ability to export to the EU market duty free products clothing from fabric of any origine.La Turkey could become an attractive alternative in this context.

However, environmental standards may hamper industrial recovery that is to say the passage of Tunisian companies of sub-contracting to co-contract. The coteraitants are strongly paralyzed by the rules of origin and environmental regulations and have to source intermediate goods from European countries. Indeed, environmental standards make it difficult for new co-contractors in search of inputs and consistent tissue. The choice of raw material suppliers is controlled by the principals that impose through a set of specifications technical standards. These include tests on chemicals and the requirement of certification. Tunisian producers have to bear the cost of testing if their input suppliers are eco-certified. This is mostly in a sourcing says "forced" imposed by outsourcers do not give additional freedom of sourcing to fabricators. In this case, co-contracting is far from autonomy.

Bibliography

Bair, J. (2010). Les cadres d'analyse des chaînes globales. *Revue française de gestion, 201*(2), 103-119.

Baksi, S., & Bose, P. (2007). Credence goods, efficient labelling policies, and regulatory enforcement. *Environmental and Resource Economics, 37*(2), 411-430.

Ben Youssef, A., & Lahmandi-Ayed, R. (2008). Eco-labelling, competition and environment: Endogenization of labelling criteria. *Environmental and Resource Economics, 41*(2), 133-154.

Dosi, C., & Moretto, M. (2001). Is ecolabelling a reliable environmental policy measure? *Environmental and Resource Economics, 18*(1), 113-127.

Frederick, S., & Gereffi, G. (2009*a*). Protectionism in textiles and apparel. in S. Evenett, B. Hoekman., & O. Cattaneo., eds, *Effective Crisis Response and Openness: Implications for the Trading System*. The World Bank and the Centre for Economic Policy Research. Washington, DC. p. 321-344.

Frederick, S., & Gereffi, G. (2009*b*). Review and Analysis of Protectionist Actions in the Textile and Apparel Industries. in S. Evenett, B. Hoekman., & O. Cattaneo., eds, *The Fateful Allure of Protectionism: Taking Stock for the G8*, The World Bank and the Centre for Economic Policy Research, Washington, DC and London. p. 65-68.

Gereffi, G., & Frederick, S. (2010). The global apparel value chain, trade and the crisis: challenges and opportunities for developing countries. in O. Cattaneo., G. Gereffi., & C. Staritz., eds, *Global Value Chains in a Postcrisis World: A Development Perspective*. The World Bank. Washington. D.C. p. 157-208.

Gereffi, G., Garcia-Johnson, R., & Sasser, E. (2001a). The NGO-industrial complex. Foreign policy, 125(4), 56-65.

Gereffi, G., Humphrey, J., & Kaplinsky, R. (2001b). Introduction: Globalisation, value chains and development. IDS bulletin, 32(3), 1-8.

Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. Review of International Political Economy, 12(1), 78-104. Gereffi, G., & Korzeniewicz, M. (1994). Commodity Chains and Global Capitalism. Westport. CT. Praeger. 352 p.

Gereffi, G., Martinez, M., & Bair, J. (2002). Torreón: The New Blue Jeans Capital of the World. in G. Gereffi., D. Spener., & J. Bair., eds, Free trade and uneven development: The North American apparel industry after NAFTA. Philadelphia. PA: Temple University Press. p. 203-223.

Gereffi, G., Memedovic, O. (2003). The global apparal value chain: what prospects for upgrading by developing countries. United Nations Industrial Development Organization. Vienna. 46 p. Gherzi. (2004). Mise à jour de l'étude textile-habillement. Rapport de synthèse. CETTEX-Gherzi. 318 p.

Gibbon, P. (2003). The African Growth and Opportunity Act and the global commodity chain for clothing. World Development, 31(11), 1809-1827.

Greenpeace International. (2012). *Dirty Laundry: Reloaded. How big brands are making consumers unwitting accomplices in the toxic water cycle*. Greenpeace International. Amsterdam, The Netherlands. 49. p.(accés en ligne à l'"adresse suivante : http://www.greenpeace.org/international/Global/international/publications/toxics/Water%202012/DirtyLaundryReloaded.pdf).

Greenpeace International. (2012). *Dirty Laundry 2: Hung Out to Dry. Unravelling the toxic trail from pipes to products*. Greenpeace International. Amsterdam, The Netherlands. 32.p.(accés en ligne à l'"adresse suivante :
http://www.greenpeace.org/international/Global/international/publications/toxics/Water%202011/dirty-laundry-report-2.pdf).