Short Communication

The Place of the African Textile Sector in the World

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Abstract — This manuscript makes a synthesis of knowledge on the African textile potential in world literature. The results show that cotton is the most produced textile raw material in Africa. This African cotton production amounts on average to 11% of the world production for 13% of the world arable land. Africa processes only about 2%. In Africa, there is a large functioning enterprise that has existed since colonisation using antiquated machinery. In particular in Francophone Africa (Central and West Africa). African textiles have a prominent place in its culture. Ndop, Rabal, Korhogo, Bogolan, Obom, Raphia, Kasai Velvet, Ntshak, Kente, Kita are African textiles. These textiles are sometimes used by a specific category of people. Asian and European textiles, with their power in textile production, are wiping out the young African textile industry, which is anxious to take off.

Keywords — *African Textile, global Textile, textile sector.*

I. INTRODUCTION

Today, the textile industry represents a real economic pillar in our society [6]. Since clothing is one of man's needs, like food and shelter, the textile industry is often considered to be moribund [7]. However, it is an essential part of human life today. A sector that brings together companies that manufacture or process textiles from the production of fibres (natural or chemical) to the final stages of finishing a woven, knitted or non-woven fabric[15-17, 27, 28]. The application of textiles is divided into 12 areas: clothing, agriculture, construction, geotextile, packaging, environment, sport and leisure, transport, home furnishing, industry, personal and medical protection[19-22]. Cotton is the most used textile material with 55% of the world's textile production, followed by

polyester with 28% of the other 45% of textile materials [8, 18, 20]. The leading textile brand in the world in 2020 is Nike (USA), with a turnover of 54,792 million US dollars, followed respectively by Zara (Spain), Adidas (Germany), H&M (Sweden), Cartier (France), Louis Vuitton (France), Uniglo (Japan), Hermes (France), Gucci (Italy) and Chanel (France) [1]. It is clear that African countries do not have big names in world textile production. Can we confirm the statement that: "Developed countries are importers of textiles and developing countries are exporters" [6]? This paper aims to position the African textile sector in global textile production and consumption.

II. TEXTILE PRODUCING AND EXPORTING COUNTRIES IN THE WORLD

World textile production is estimated at US\$308.989 billion. That is 252.81 billion metres of clothing [2]. In 2010, approximately 22 million tonnes of textiles were consumed in the world [9]. World production of textile fibres was over 50 million tonnes in 2006 [10]. World textile production exceeds world consumption by 18.1%. According to the UN, there are 7.83 billion people in the world and 1.3 billion in Africa, i.e. 17% of the world population in 2021. In daily life, people need socks, underwear, clothing, bathroom linen (towels, gloves, etc.), bedding (pillows, duvets, etc.) and interior furnishings[23-25]. China has been the world's largest producer for the 7th consecutive year since 2012[1]. China plays a leading role in the representation and positioning of textiles in the global economy. The main exporters in descending order are, in addition to China: the European Union, India, the United States, Turkey, Korea, Taiwan, Vietnam, Pakistan, Hong Kong and Mexico [1-3].

III. PRESENTATION OF THE TOP 10 TEXTILE PRODUCERS IN THE WORLD

China is the world's largest textile producer and exporter. It had an export value of around \$120 billion in 2014 [13]. World textile exports fell from 38.3% to 29.1% between 2015 and 2020 [13]. This decline is due to the displacement of some textile manufacturing companies. These companies have moved from China to low value-added countries where production costs are lower. These countries are Vietnam, India and Bangladesh and Ethiopia. This trend has recently been exacerbated by trade tensions between the US and China [13]. For about 20 years, the Chinese textile industry has been growing rapidly and is now one of the main pillars of the Chinese economy [13].

The 28 countries of the European Union (EU), with a market share of almost 24% worldwide and a market value of US\$ 75 billion, is the second-largest exporter of textiles in the world [13]. Italy, Germany, Spain, France and the Netherlands are the main countries of the clothing industry in the European Union [13]. There were more than 170,000 companies in the textile-clothing sector in the European Union in 2018; about 70 per cent of them are clothing companies, 30 per cent are textile companies, while less than one per cent are active in the synthetic fibres sector [13].

India is the third-largest Textile producing country in the world. The country has an evolving market with about US\$ 18 billion in 2014. In 2014/2018, India's cotton production amounted to about 6.4 million metric tons, just 100,000 tons less than China, the largest producer [13].

IV. TEXTILE PRODUCING COUNTRIES IN AFRICA

While the oldest textile production in the world verified to date is in ancient Egypt, nearly 2000 years before Christ, with the main use of linen but also sheep wool, goat hair and palm fibre [3, 13]. Since independence, many African countries have focused on garment making, mending and craft textile manufacturing (Mali, Senegal, ...), abandoning modern manufacturing. However, they are cotton producers. Cotton will remain the major Textile raw material on the African continent in 2020. Africa accounts for an average of 11% of the world's cotton production for 13% of the world's arable land, and only about 2% is processed locally [1]. Benin retains its position as the leading cotton producer in Africa, a position it has held since 2018 [1, 3]. The sector is quite dynamic but exports more than 95% of its production. In the ranking of cottonproducing countries in Africa, Côte d'Ivoire is in third place, behind Mali and Benin [4]. The dynamism of the cotton sector in Côte d'Ivoire is undeniable. In Benin, the 2018/2019 cotton season reached 678,000 tonnes of seed cotton, making Benin part of the sector's history. It is important to underline that there are reference countries in textile production:

The textile and leather industry occupies third place in the Moroccan processing industry. The textile sector accounts for 3% of national industrial production, 4% of exports, and employs 7% of the total workforce [10].

The industrial fabrics of the textile sector in Tunisia in 2016 were mainly made up of companies that were totally exporting (more than 1700 companies in the textile industry and more than 200 companies in the leather and footwear industry). The garment and hosiery branches concentrate more than 1500 and 200 companies in the textile sector respectively and constitute more than 70% of textile exports. In the leather and footwear sector, the major activity remains shoes and uppers (more than 220 companies out of a total of 300) [10].

Ethiopia's textile manufacturing in Africa is currently only \$115 million in exports. Ethiopia has been playing a double game in recent years to attract global investors to its textile and clothing sector. These include a tax incentive scheme that offers foreign companies, under certain conditions, exemption from income tax or exemption from customs duties or taxes on certain imported capital goods [10].

Nigeria's textile and clothing industry covers the entire clothing value chain and has strong growth potential due to the availability of cotton and the country's large market size of over 170 million people [11].

In South Africa, the textile sector was worth €6.5 billion in 2014 and had been growing at a rate of 8.8% for over a decade [14]. This compares to Nigeria and Egypt's 7.7% and 7.3% growth, respectively [14]. Its revenues are €8.3 billion in Nigeria and €7.6 billion in Egypt. In short, Morocco, Tunisia, Ethiopia are leaders in textile production in Africa [3].

V. CORPORATION AND ORGANIZATION OF THE TEXTILE SECTOR IN AFRICA

At present, Africa exports more than 90% of its cotton crop. This cotton which is in the world market is second class even though it is harvested by hand. The classification of cotton from West African countries like Burkina Faso, Mali and even Central Africa is done at Geocoton in France. While domestic processing of cotton in Africa could generate a revenue of 90 billion US dollars, as estimated by the International Cotton Advisory Committee (ICAC) in 2020 [11].

In Africa, the majority of factories in operation often date from the colonial era, particularly in the CFA franc zone. For example, "at Mwanza Ltd in Tanzania, hundreds of looms produce fabric at 150 strokes per minute. Today's standards are between 800 and 1,200 strokes a minute. In comparison, in Pakistan, Brazil, India, China or Turkey, a factory with the same number of modern machines produces, at the same time, 10 times more surface area of fabric than in Africa"[1].

African textiles have a special place in his culture. Ndop, Rabal, Korhogo, Bogolan, Obom, Raphia, Kasai Velvet, Ntshak, Kente, Kita are African textiles. These textiles are sometimes used by a category of people. The sale is not popularized. Because of its scarcity on the market, China imitates and leaves on the market the fabric at lower cost and of lower quality. This is the case of Ndop in Cameroon.

VI. KEY COMPETITIVE FACTORS

The textile sector plays an essential role in the cultural influence of Africa throughout the world. The textile industry is undoubtedly an important factor in the economic development of the continent. The main challenge remains the involvement of the governments of African countries. Thus, political will and the improvement of the business environment are factors that would favour the increase of competitiveness and the promotion of the sector. Appropriate pilot projects should be carried out in parallel to demonstrate the strategic importance of IP for SMEs in the fashion design sector in Africa. This should be done in parallel to demonstrate the strategic importance of IP for SMEs in the fashion design sector in Africa and how the protection of trademarks and designs can lead to a branding strategy that enhances the assets of the African textile sector [11].

Chinese competition is undermining the African textile industry, which is struggling to make its brands stand out after 40 years of independence. In Burkina Faso, of the 46 spinning factories that were operational in 2003, only ten or so are now in working order. The other side of the Chinese competition consists of the production of cheap wax fabric, which is often of poor quality, counterfeit and sometimes illegally introduced into local markets. In Cameroon, for example, local production stands at 5% compared to 82% for China and 13% for West Africa [5]. For more than 40 years, second-hand clothes from Western countries have been sent to Africa, invading the local market. Allowing the spread of Western fashion. Given the low price, this helps the poor to flourish and influences local production by slowing down its expansion. Today, with the arrival of the brands H&M or Zara, the African textile industry is forcing its existence. Africa needs an expansion of production that respects sustainable development and can keep up with the Western competition.

VII. CONCLUSION

At the end of this analysis, it is not superfluous to recall that it was a question of making a synthesis of knowledge on the place of Africa in the world textile sector in the literature. Cotton is the most produced textile raw material on the African continent. African cotton production is on average 11% of world production. Africa has 13% of the world's arable land. Cotton processing in Africa is about 2% of its production. The majority of processing machinery is in Africa. African textiles have a prominent place in its culture. Ndop, Rabal, Korhogo, Bogolan, Obom, Raphia, Kasai Velvet, Ntshak, Kente, Kita are African textiles. These textiles are sometimes used

by one category of people. In Cameroon, for example, local production is 5% compared to 82% for China and 13% for West Africa [5]. In short, developed countries are importers of textiles, and African countries are exporters.

REFERENCES

- [1] Inside African Closet. Dossier Africa and its textile industry: what about the current situation. (2016).
- [2] Department of Fashion and Clothing Studies. University of Delaware, Global Clothing and Textiles Trade and Sourcing, at shenglufashion.com, (2018).
- [3] Statista Research Department..value of textile exports by country in the world 2018. (2019).
- [4] http://clinique-turin.com/j6lhbu/classement-des-pays-producteursde-coton-en-afrique-2020
- [5] Elizabeth Kouagne. Cameroon: local textile industry weighed down by Chinese imports. Douala. The top 360 of the week. (2017).
- [6] Kelly ESPOSITO (2018) What are the eco-socio-economic solutions for the textile industry? Geneva, School of Management.
- [7] Begarra, R., Grayer, J. Technological aspects and achievements relating to clothing problems. In J. André JOLY collection, Manual and technical education (PP1-46 second part). (1980).
- [8] European Commission. Textile industry. Reference document on best available techniques. (2003).
- [9] Development and Consulting firm. Technical textiles. Excerpts from the study conducted by on behalf of the Directorate General for Enterprise
- [10] Xavier Masset. From vegetable fiber to textile fiber .UFR of Pharmaceutical and Biological Sciences. (2008).
- [11] Ariane AGBO. The advantages of African textiles. SunayON Business Club Investment Consulting. (2016).
- [12] Jose Martin Herrera Hamirez. Fatigue mechanisms in thermoplastic fibers. Thesis to obtain the degree of Doctor from the Ecole Nationale Supérieure des Mines de Paris. (2004).
- [13] https://www.coface.fr/Etudes-economiques-et-risque-pays/Textile-Habillement .2021. accessed June 22, 2021.
- [14] French Federation of Women's Ready-to-Wear. State of play. South Africa, one of the flagship countries of sub-Saharan Africa. South Africa international standby. (nd).
- [15] Nsangou Abdouramane, Nkemaja Dydimus Efeze, Pierre Marcel Anicet Noah, Fabien Ebanda Betene, Hambate Gomdje Valery, Yaka Nsasso Rhodechristelle, Mewoli Armel. Antibacterial properties of plant-Based Textile. SSRG International Journal of Polymer and Textile Engineering 8(2) (2021) 1-5.
- [16] NsangouAbdouramane, Amba Cecile, NkemajaDydimusEfeze, Pierre Marcel Anicet Noah, Fabien EbandaBetene, HambateGomdje Valery, MewoliArmel, Ngum Lesley Ngum, Fouyou Anne Valee, MbengonoNambele Cecile Constance.Class of mineral Textile Fibre Review. SSRG International Journal of Polymer and Textile Engineering 8(2) (2021) 6-8
- [17] Nsangou Abdouramane, Nkemaja Dydimus Efeze, Pierre Marcel Anicet Noah ,Soppie Anny Geraldo, Amba Cecile, Assomo Angele Michelle, Fouyou Anne Valée, Elong Elong Elie Firmin kuate , Ngum Lesley Ngum, Fabien Ebanda Betene , Hambaté Gomdjé Valery . , Meta-analysis on the Retting of Plant Fibres. SSRG International Journal of Material Science and Engineering 7(3) 16-20
- [18] Nsangou A., Antibacterial treatment of sida rhombifolia fibers by aloevera for textile application. Dissertation defended with a view to obtaining the Master's degree in engineering science, University of Douala, (2020).
- [19] Hetal M., Suman M., and Anju T., Antibacterial Treatment on Cotton Fabric from Aloe Vera. Department of Textiles and Apparel Designing, Sir VithaldasThakersey College of Home Science [Autonomous], Juhu, S.N.D.T Women's University Mumbai -400049, [Maharashtra] India, (2020)
- [20] Society Development and Textile Fibers [Sodetex], (2012). Principles of measurement of technological characteristics and interpretation of results Presentation: quality of cotton fiber 15-17/10/12 continuations.
- [21] Anses., Health effects and identification of amphibole cleavage fragments from quarry materials. Ed scientists from Anse.

- [22] Bernard Moreau and Michel Grzeby., (2015) (2008). Use of materials in France. INR. Occupational hygiene and health. Documentary notebook.
- [23] Commission Européenne., Document de reference sur les meilleurs techniques disponibles. Industrie textile., (2003).
- [24] Sectoral Labor Committee for the Textile Industry of Quebec [CSMO]., Quebec: WWW.csmotextile.qc.ca., (2015).
- [25] Garaude, C. &Santreuil B., Tissue technology checklist. France: André Castelilla 3rd., (2000).
- [26] Grayer, J., Technological Aspects and Achievements in Clothing Problems. Rue de Grenelle: André Joly In Manual and Technical Education., (1985).
- [27] Le Corre, M., Moreau, C. & Payen, J.P., Organic Chemistry. Paris, France: Sciences Belin Sup., (1997).
- [28] Weidmann, D., Technical Textiles Checklist. Paris, France: Dunod., (2010)