
Textile Industries and Their Applications in Curtailing the Insecurity in Nigeria

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Abstract

The socio-economic development of Nigeria cannot be fully achieved without considering the Textile industry as the way of diversifying the Nigerian economy, reviving the textile industries is one way of curtailing the social vices such as Banditry, Kidnapping and Boko Haram insurgency which has resulted to high rate of unemployment in the north eastern and western part of the Country. It is however, necessary for the government to take all necessary steps to revive the textile industry in other to provide employment opportunity to the teaming youth and way of diversifying the country's economy which over 200 million Nigerians depends on. This paper seeks to highlight the role of Textile industry in curtailing the insecurity challenges in the Country and way of providing employment which is believed to play a key role in solving the insecurity challenges in the country.

Keywords: Textile, Economy, Employment, Industry, Security.

INTRODUCTION

Nigeria one's had one of the finest and most vibrant Textile sectors in the world. At its peak in the 1980s, this industry provides up to 500,000 direct jobs with well over 250 functional factories in most of the country's cities, but especially in Kaduna, Lagos and Kano. It was then a huge revenue earner for the government given that it generated about 25% of the manufacturing sector GDP and contribute more than 20% of corporate taxation revenue. The sector was one of the largest employers of labour in the country in the 1980s after federal government (Emmanuel and Hannatu, 2010). That was before the collapse and ultimate neglect of the sector, regrettably, this is happening when trade in textile has become a major money- spinner for several countries across the globe, with a global net worth of over \$500 billion and capacity to grow to \$700 billion by 2012. Japan, India, Hong Kong, and China particularly, have become major beneficiary of the trade essentially because of the availability of cheap labour which is a crucial factor in the industry (Emmanuel and Hannatu, 2010).

United Nation Information Centre (UNIC) in Lagos said about the sector, if revived, would remain a major foreign exchange earner for the country. The statement indicate that the Country represent a strategic non- oil industry and is the second largest industry in many parts of sub- Saharan Africa. Reviving the sector will create more jobs, this is as a result of high utilization of local raw material such as cotton and polyester for spinning and weaving

(Webmaster, 2009). For example. When United Nigerian Textile (UNTL) was functioning in full Capacity alone, it has a total number of more than 10,000 staff strength across five departments which include spinning weaving, finishing, engineering and personnel as a direct labour and also indirect labour, it was projected to provide more than 100,000 jobs across the state. It is known before the collapse of the textile sector, the unemployment rate in the Country was very low and social vices such as Boko haram, Banditry and Kidnapping were not in existence in the Country because the industry provides huge employments opportunity which keeps the teeming youth busy and encourages the growth of the economy through the small, medium and large-scale industries.

HEALTH SECURITY.

Personal protective equipment (PPE) Such as disposable bedsheet used in Hospital or isolation centers, medical gown used by the health personal, hand gloves, some part of medical equipment such as ventilators, nose and face mask etc. were all made from textile and polymer products. The impact of this sectors is the testimony of the achievement made so far by the Nigerian Government during the Covid-19 Pandemic when it was at peak level, vaccine was not discovered and many scientist were busy studying the virus and it behavior while it was killing thousands of people across the globe, the only possible solution then was the mandatory use of PPE to curtail the community spread of the deadly virus, as such low death rate was recorded in Nigeria because of the constant use of PPE which is a testimony of the impact of textile product. The production of textile and polymer product popularly known as PPE in the country is grossly inadequate with the population of over 200 million Nigerians, so it is imperative for the Nigerian Government to critically look into the virtual role of the industries in providing employment and economic diversification which will directly reduce social vices as it mostly affects Nigeria today.

ECONOMIC SECURITY

The gross domestic product (GDP) is one of the key indices used in determining the level of economic security of the Country. It was discovered that improving and reviving textile industries will not only reduce the unemployment rate but will directly and indirectly contribute to the growth of the Nigerian economy through the GDP growth by small, medium and large-scale industries. The value chain of the textile through the cotton production, ginning, spinning and weaving of textiles, fashion and garment industries will generates all relevant taxes such as pay as you earn (Payee) and value added tax (VAT). Which government derived through taxation and had a lot of impact on the GDP growth in the Nigerian economy, other export taxes will be generated which will also increase the foreign reserve of the country thereby providing strong security to the Nigerian economy.

According to Yusuf (2008) provided out that the government had made attempts to responds to the crisis in the textile sector in 2007, the federal government launched N70 billion development fund to finance new investment in cotton and textile sectors. N50 billion was meant to rehabilitate the factories and N20 billion to grow cotton. It was projected to generate N60 billion annually and create 200,000 jobs for youths (Nigeria Guardian News, 2009).

Godwin Emefiele, the Governor of the Central Bank of Nigeria (CBN), has revealed that the country's textile industry can create not less than 2 million jobs if well harnessed. He made this known while expressing confidence that the industry is poised to make the Nigerian economy self-reliant. Speaking at a stakeholders' meeting with cotton, textile, garment producers and farmers in Abuja, Emefiele said the textile industry can also "reduce over \$4 billion import bills annually, and save our hard earn foreign exchange, while accelerating the industrial development of the country, and making Nigeria a global player in the textile and garment subsector.". (Damilare, 2019). The textiles industry had become a natural lead sector

of the economy, one of the major sources of foreign exchange earnings and a large employer of labour. (Frishman, 2001).

Emefiele maintained that the country's textile industry is capable of transforming the economy by reviving the cotton and garment sector, thereby improving Internally Generated Revenue (IGR) across the three tiers of government. Furthermore, the apex bank Governor stressed that the ginner, spinners, and about one million farmers who were planting cotton as their source of livelihood also lost their jobs (Damilare, 2019).

ROLE OF TEXTILE IN PROTECTION OF SECURITY PERSONNEL

The rising trend of insecurity in the North such as Boko Haram insurgency, Banditry and Oil Bunkering in the Southern part of the country has led to increased military operations all over the country. This has led to increases in public spending aimed at reducing injuries to Military officers, police, civil defense, and other paramilitary units through the provision of personal protective clothing and gears for security officers. The term 'protective clothing' covers Textile garments and accessories intended to protect officers against the elements, dangerous or hazardous materials, processes or events during the course of their work. It also encompasses garments intended to protect products, the workplace or environment against people (as for clean room garments), Demand for protective clothing is affected not only by increased levels of industrialization but also by an increased awareness of, Health, Safety and hygiene legislation. (Shanmugasundaram., n.d)

Below are the various types of fibres that were used in polymer composite as a filler for reinforcement in the manufacturing of ballistics bullet proof, security jacket and some helmet for protection of security personnel during the operations.



Below are some of the security equipment's made from Textile and Polymer materials:



Kenaf Source: Textileblog.com
apps.dtic.mil

Soft Woven Body Armor. Source:



Ballistic Military Helmet. Source: RenderHub.com

VARIOUS TYPES OF CLOTHING DEVELOPED TO PROTECT SOLDIERS IN EXTREME WEATHER CONDITIONS IN HIGH ALTITUDES.

Soldiers are accustomed to rigorous physical activity like running and carrying equipment and weapons. Excessive activity in cold climate followed by inactivity results in hypothermia, whereas high work rates while wearing layers of protective clothing in hot climate leads to hyperthermia. Sometimes these conditions can even lead to illness or death. The troops deployed in Sambisa forest in the North East and riverine areas in the South-South part of the country are faced with several challenges by medical conditions like hypothermia and other cold-related injuries, such as frostbite, frost nip, superficial ulcers of the skin and trench foot (caused by constant exposure to wet, non-freezing conditions). The biggest factor behind death of soldiers in those areas is not by enemy bullets but due to the extreme weather conditions. (Devi, n.d)

To overcome physiological hazards caused by exposure to varying degrees of cold and hot weather conditions in their various areas of operations, clothing should be designed and developed by using special fabrics that can protect them.

CONCEPT OF HIGH-ALTITUDE CLOTHING

High altitude clothing or Extreme Cold Climate clothing (ECC) is a type of multilayer clothing used in very cold climate zones. The clothing needs to meet both functional as well as comfort parameters and comprises jackets, waistcoats, trousers, glacier caps, rappelling gloves and glacier gloves. The typical characteristics of high-altitude clothing are hydrophilic

or waterproof, moisture resistance, breathable, abrasion resistance and resistance to wear and tear.

For example, the high-altitude clothing used by Indian soldiers till now have generally been heavy, bulky and clumsy. Most were imported from China and used bird feathers as filler. Besides, these either did not provide adequate warmth or caused excessive heat stress and restricted operational movement. Additionally, there has been an acute shortage of clothing for Indian troops deployed in high altitudes. The Defence Bioengineering and Electromedical Laboratory (DEBEL) under the Defence Research and Development Organisation has developed several high-altitude clothing for defence personnel. Here are some such clothing displayed at the Aero India 2019: (Devi., n.d)

1. Battery-operated Arctic gloves:

These have active heating elements, specially designed for aircrew operating at very high altitudes to protect them in temperatures up to minus 30C. They heat up automatically when the temperature drops below 20C, maintaining the temperature within physiological comfort. Advanced materials like non-woven polyester for insulation and wind stopper material for protection against cold wind are used in the gloves.



Battery-operated Arctic glove
Source: Technical Textile.net

2. Battery-heated shoe insoles:

The limbs of army personnel deployed at high altitudes and extreme cold weather conditions need more protection as they are highly susceptible to vaso constriction of blood vessels resulting in reduction of blood flow. Hence, battery-heated shoe insoles have been designed in which heat is produced in the soles and keep the feet warm.



Battery-heated shoe insoles.
Source: Technical Textile.net

3. Battery-heated jacket:

This jacket has also been developed by DEBEL in collaboration with one of the garments exporting units in Bangalore and uses the same concept like heated gloves. It comprises heating tapes, temperature controller and lightweight lithium-ion rechargeable batteries. The jacket is made up of multi-functional layers and each layer has a definite purpose.



Battery-heated jacket
Source: Technical Textile.net

4. Flame retardant winter jacket:

The flame retardant (FR) winter flying jacket is specially designed for pilots who operate in high altitude conditions. The garment is made from functional fabrics to provide thermal protection, breathability and water repellency. The aircrew can use this garment alone or in combination with thermal vests, depending on the severity of the climatic condition and operational requirements.



Flame Retardant winter jacket. Source: Technical Textile.net

5. Electrically-heated jackets and trousers:

This is made up of a three-layer fabric material and is an extended version of electrically-heated glove made by DEBEL.



Electrically-heated jackets and trousers.
Source: Technical Textile.net

6. Electrically-heated blanket:

This is also an extended version of heated gloves and specially developed for soldiers and paramilitary troops operating in extreme cold climate. Unlike commercially available heated blankets that work on 220 V AC, this blanket developed by DEBEL works on 24 V DC and hence prevents electrocution when any liquid, snow or ice falls on its surface.



Electrically heated blanket
Source: Technical Textile.net

7. Fur-lined boots:

This piece of personal protective equipment has been designed to provide smart, durable, light-weight and comfortable boots for use by the Indian air force crew in extreme cold conditions.



Fur-lined boots.

Source: Technical Textile.net

RECOMMENDATION

1. The Government should support the few existing textile industries and work towards the revival of the textile industrial sector.
2. Military Uniforms should be produced by textile industries within the Country, these will help to bring down import of Military textiles and help to boost production from local textile companies.
3. Government should key into local material such as production of KENAF, and other natural and synthetic fibers which are used in security protection equipment.
4. Government should key into diversification of Economy toward Textile and Polymer in other to avoid dependency in mono-economy.
5. There should be collaboration between Polytechnics and Government in the area of research and development.
6. Research Grand should be made available and easy to access by scientists, researchers and all Academic staffs of tertiary institutions.

CONCLUSION

The raising insecurity challenges in the Country has cripple the Economy which has resulted in loss of life, unemployment and displaced many people from their home. Reviving the textile industries is one way of tackling the insecurity challenges at the moment and will go a long way in curtailing the social vices by providing huge employment opportunity to the teaming youth and bring about growth and development of the Nigerian economy. The role of textile industry in curtailing the security challenges has been highlighted in this paper through: Heath security, Economic security and production of personal protective equipment to the security personnel towards having better operational condition.

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