

# Made in Aba Cluster Mapping Report

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# 1 Executive Summary

## 1.1 Overview of Study Motivations and Objectives

The Nigerian economy is extremely vulnerable to fluctuations in the global oil price. This was recently demonstrated when a decline in global oil prices and in local oil production contributed to a recession in 2016. Although oil currently accounts for only about 10% of Nigerian GDP, it exerts a disproportionate pull on the Nigerian economy through its impact on exports and government spending. Oil currently accounts for 83% of Nigeria's exports and nearly 60% of government revenue. Despite the generally poor performance of Nigeria's non-oil sector in terms of exports, the garment and leather goods cluster in Aba, Abia State has high productivity levels compared to the rest of the country and is therefore able to export, at least within the West African region.

The aim of this study is to document the factors and unique characteristics that led to the formation, growth, and relative success of the Aba cluster; understand the constraints businesses in the cluster face; and develop recommendations for increasing productivity in the cluster and in Nigeria in general using Aba as a case study. The information contained in this report will be of use to both private and public sector organizations seeking to contribute to the growth of the Aba garment and leather goods clusters.

## 1.2 Overview of Research Methods and Limitations

We utilized three main research methods in the course of this study: desk research, direct observations and data collection, and stakeholder surveys and interviews. Our desk research involved conducting a thorough literature review on the processes and benefits of cluster formation, an analysis of existing research and datasets on the global leather and garments industries, as well as a review of reports on Aba and the Aba clusters.

We aimed for a sample size of at least 10% of the businesses in each sub-cluster in order to provide representative results and achieved sample sizes of 31% in the garment cluster and 19% in the leather cluster. The major limitations of this study were the absence of accurate production measurement among the business owners in the cluster and the poor quality of sectoral data in Nigeria, which restricted the depth of our analysis on the garments and leather goods sectors in Nigeria.

### **1.3 Overview of Aba and the Aba Garment and Leather Goods Clusters**

Aba, located in Abia State in South Eastern Nigeria, has a garment-making cluster and a leather goods cluster each of which has its own distinct characteristics. The garment cluster is located in the Aba city centre and has two sub-clusters, namely Garment Village which specializes in mass production of apparel and the Ekeoha Shopping Centre cluster which has businesses which are mostly involved in bespoke production of apparel. The leather cluster is located in the Ariaria Market and it consists of four sub-clusters with three involved in the production of shoes and the other one in the production of bags. In total, the Aba garment and leather goods clusters employ approximately 21000 people.

### **1.4 Overview of Research Findings**

#### **1.4.1 Research Findings**

We found that despite some important differences between the clusters and sub-clusters, they generally tended to have similar features, which include:

- There is a high degree of fragmentation in the clusters with 95% of producers across the clusters having fewer than 10 employees.
- Businesses in the clusters are largely informal with no formal registration as corporate entities. Only about 6% of the businesses in the clusters are registered with the Corporate Affairs Commission.
- Production is generally done with low-tech equipment due to difficulties with access to finance and poor power supply, which limits the kind of machinery that can be used.
- Product sizes and material composition are not standardized.
- Product designs are typically replications of designs from well-known international brands
- Although businesses in the cluster tend to export more than the average Nigerian firm, most production is consumed locally.
- Diffusion of knowledge and innovations around the cluster mainly happens through the apprenticeship system.

#### **1.4.2 Major Constraints to Firm and Industry Growth**

We also found that businesses in the clusters typically face the following constraints to growth and higher productivity:

- Poor power and transport infrastructure, which increases the cost of producing and transporting goods to customers.

- High cost and availability of raw materials, particularly the imported ones. Additionally, even when available, it is difficult to be sure of the quality of the raw materials.
- Difficulty of accessing finance to invest in more efficient machinery or to expand production operations.
- Another major constraint is the absence of wide scale knowledge of the dynamics of the global garment and footwear industry. This knowledge is important in order for the industry to fully understand the scale of their potential, and how to realise it.

### 1.4.3 Recommendations

Based on the features of the clusters and the constraints faced by the businesses operating there, our recommendations for supporting the Aba clusters include:

#### For Government

- The government should work with independent power producers to begin the construction of new, independent power plants that will serve the Aba area and provide electricity to the cluster.
- The state and federal governments should develop improved transport linkages to Aba including roads and railways.
- The government could help create a vehicle to de-risk lending to firms in the clusters.
- The government, through the standard organizations and agencies work with the industry and clusters to create and or adopt size standards for garments and leather products in Nigeria.
- Support business by making it easier to formalise with minimal requirements.

#### For firms and businesses

- The business owners in the cluster should register and formalize their business operations to make it easier for them to obtain access to finance, and other government incentives.
- The firms and businesses in the clusters need to be open to attracting foreign capital and investors in order to help them expand and improve their operations.

## 2 Introduction and Background

### 2.1 Objectives of the Study

There are three main objectives for the study of industrial clusters in Aba. Generally, these objectives can be characterized as to understand, to analyse, and to replicate. First, we seek to map the cluster, and understand the peculiarities of the clusters in Aba and the constraints to growth. Secondly, to analyse these constraints and provide economic and analytical interpretation in relation to identified local and global growth opportunities. Thirdly, this study is expected to provide a platform for easy access to other clusters in Nigeria by simply replicating this study in those environments. In details, the objectives are the following:

### 2.2 Motivation for Studying the Garment and Leather Goods Clusters in Aba

Despite announcements of various policies, programs and established agencies aimed at diversifying Nigeria's exports away from oil, Nigeria's non-oil exports were an average of 7.75% of total exports between 2001 and 2016<sup>1</sup>. Also, according to the Nigeria's National Bureau of Statistics (NBS), non-oil exports in 2015 and 2016 were 12.1% and 4% of total exports respectively. Oil's dominance of Nigeria's exports leaves Nigeria's economy vulnerable to swings in the oil price, which makes it difficult for Nigeria to experience sustainable, broad based and long-term economic growth. If Nigeria is able to increase non-oil exports, it will have positive effects on employment, productivity and exchange rate stability. Research has shown that there is a high level of correlation between export and productivity growth (Loecker, 2007), making exporters a major driver of productivity growth in an economy.

Even though Nigeria generally has a low level of non-oil exports, there are some clusters of vibrant non-oil economic activity that hold enormous promise for non-oil export growth. One of these clusters is Aba in Abia State, which is known around Nigeria as a hub for production of goods such as clothing, shoes, bags, belts and steel fabrications, with a high concentration of artisans. In recognition of this promise, the Abia State government has promoted goods from the Aba area in recent years with its "Made in Aba" campaign. The State government's promotional efforts have included the creation of a website ("madeinaba.com.ng") and the establishment of a Made in Aba Trade Fair in Abuja to showcase and sell Made in Aba goods. An analysis of the Aba Industrial Cluster is needed in order to understand the productivity and export growth opportunities that exist from the Aba area, how the producers in Aba can take advantage of these opportunities, the support they require to increase their exports and the constraints they face in growing their exports and value additions in general.

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<sup>1</sup> Source: International Trade Center

Given the positive impact that diversifying Nigeria's exports is likely to have, it is important to carefully study and analyse the processes and operations of exporters in the Aba cluster. This analysis will help to provide an understanding of the number of exporting firms, the characteristics of these exporters, what they export, how they are able to export, their potential for scaling up production to meet export demands, the constraints they face, opportunities for investment, and how the insights gained from studying the Aba cluster can be applied to other parts of Nigeria.

The study focuses on the garment and leather clusters in Aba for the following reasons:

- **Large number of people working in the clusters:** Our research suggests that there could be up to 25,000 people employed directly in the leather and garment industries in Aba, with many more employed in supporting industries.
- **Small business growth:** Most of the businesses in Aba are small businesses employing fewer than ten employees. Helping these businesses to improve their operations and grow their profits will contribute to the development of successful small and medium scale enterprises in Nigeria, and contribute to the growth of the middle class and poverty reduction.
- **Existence of a large international market:** The potential for scaling up production and exports of these products. Global exports of apparel are valued at \$178.4 billion while exports of footwear are \$130.7 billion<sup>2</sup>. These exports are expected to grow as the world population grows, and incomes increase around the world. If productivity can be increased to approach global benchmarks, Aba can take market share from higher cost producers in other countries.
- **Extensive value chain opportunities:** The interconnectedness of the value chains of these products with those of other products. These products have highly connected value chains, which could lead to the growth of other connected industries in Aba and other parts of Nigeria.
- **Understanding of non - oil exports:** The study of the Aba industrial clusters will provide the understanding of how non-oil producing firms that export are able to do so. It will provide some insight as to the constraints faced by these businesses and how they have been able to overcome them. Since the firms that operate in these clusters are mostly small and medium scale like most Nigerian companies, the information gained from studying them will be more applicable to a larger number of Nigerian firms than information that would be gained from studying larger exporters.
- **Women employed in these sectors.** In the course of our research, we noticed that there were large numbers of women employed in the garment sector, and to a lesser extent, the leather goods sector. If the knowledge gained from our research contributes to increasing incomes for people employed in these sectors, this will inevitably lead to higher incomes and more employment opportunities for the women involved as well.

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<sup>2</sup> Source: UN COMTRADE

## 2.3 Research Methods and Study Limitations

### 2.3.1 Research Methods

The research methods used in this study were desk research, a survey of businesses in the Aba clusters, and direct data collection by the researchers.

We studied existing academic literature for the contextual information on clusters, including the types of clusters, how and why they form and their benefits in order to provide a theoretical basis for understanding the importance of studying the Aba clusters and how to improve them. Additionally, we analysed data from sources such as UN Comtrade, the National Bureau of Statistics (NBS) and the International Labour Organization (ILO) and qualitatively analysed reports on the global garment and leather industries to develop an understanding of the global value chains of the global garment and leather industries and to understand the trends in the sectors.

We also conducted surveys of the producers in the Aba clusters to collect first-hand information on the production, employee numbers, product groups, levels of exportation, rates of formal business registration, and the constraints faced by the producers. We then conducted quantitative and qualitative analysis of the survey data to properly understand the features of the businesses in the clusters and the constraints that they face. The surveys were administered with the assistance of a team of nine enumerators.

Additionally, in order to give an accurate description of the clusters and the surrounding areas, we collected primary data and made observations. This included a mapping exercise of the clusters and the surrounding areas.

### 2.3.2 Research Sample

The researchers and the enumeration team undertook a thorough street-level counting exercise to determine the precise number of the individual businesses in each of the sub-clusters.

Given that the individual businesses in the clusters tend to be similar, it was determined that a minimum sample size of 10% would be sufficient to ascertain the unique characteristics of each cluster and sub-cluster. To ensure that the unique characteristics of each street and line were captured in the survey, we decided to use a stratified random sample. The enumerators were distributed and assigned different streets in each sub-cluster and instructed to survey at least 10% of the producers on their assigned street. The table below shows the sample sizes achieved for each sub-cluster.

**Table 1: Sample Sizes for the Clusters and Sub-clusters**

	Estimated Number of Businesses in the sub-cluster	Number of Businesses Surveyed	Sample Size
<b>Garment Cluster</b>			
Ekeoha Shopping Centre	650	156	24%
Garment Village	600	228	38%
<b>Garment Total</b>	<b>1250</b>	<b>384</b>	<b>31%</b>
<b>Leather Cluster</b>			
Bakassi	1500	229	15.3%
Power Line	650	217	33.4%
Shoe Plaza	1300	214	16.5%
Nwaogu	200	20	10%
<b>Leather Total</b>	<b>3650</b>	<b>680</b>	<b>19%</b>

### 2.3.3 Research Limitations

Although every effort was made to obtain the precise number of businesses and firms, the counting exercise was complicated by various factors including two or more businesses sharing the same premises and single businesses being spread across different rooms in the same building or across many buildings. Considering these issues, it was decided that the results of the count would be reported as approximate numbers rather than the precise number obtained from counting to avoid projecting a false sense of certainty.

The survey was designed to produce numerical data from which productivity, production statistics and export rates could be calculated. However, there were a number of factors, which made this difficult. Firstly, most producers in the area do not keep accurate data on production and sales therefore, all the data that was collected on these were based on estimates made by the producers. Secondly, these estimates tended to vary widely depending on what the producers thought the reason for the data collection was.

Despite the enumerators providing clear explanations of the study and its purposes, some of the producers thought the enumerators were working for tax collectors, a government agency or for investors. Producers who thought the data was being collected for tax collection purposes tended to

give low production and sales numbers while those who thought it was for a government agency or for investors gave higher estimates. Based on the wide range of estimates for producers with similar production equipment and techniques, it was decided that the production data from the survey was unreliable for a detailed and comprehensive productivity analysis. In order to perform a proper quantitative analysis which avoids the issues listed above, it will be necessary for us to collect this data first-hand.

Additionally, the quality of sector and sub-national level economic data such as number of people employed by a sector, the GDP of a state or city etc. is quite poor in Nigeria, as a result, we were constrained in the level of analysis we could perform on the garment and leather goods sectors in Nigeria, and in our analysis of the contribution of the Aba clusters to GDP.

## 3 The Global, National and Industrial Context for Analysis of the Aba Industrial Cluster

### 3.1 Cluster Theory

#### 3.1.1 Why do Clusters Form?

Clusters are geographic concentrations of interconnected companies and institutions in a particular field, linked by commonalities and complementarities (Porter, 1998). Some international examples of well-known clusters are Silicon Valley, Hollywood, and the City of London.

Although it might seem paradoxical that firms would benefit by being located near their competitors, clusters typically improve productivity, promote idea generation and sharing, and facilitate the development of essential support services in close proximity to the businesses that need them<sup>3</sup>. In successful clusters, these benefits outweigh the negative effects of increased competition. In addition to increased productivity for the firms in the cluster, clusters also contribute to the economic growth of the regions in which they are located (Wolman and Hincapie, 2010).

Some of the ways in which clusters contribute to growth of the businesses in the cluster and consequently the economic growth of the region are a higher concentration of skilled workers in the region, reduced costs of distributing and selling goods, knowledge and innovation sharing, and the clustering of suppliers around the area which reduces costs of raw materials.

### 3.2 The Global Garment and Leather Industries

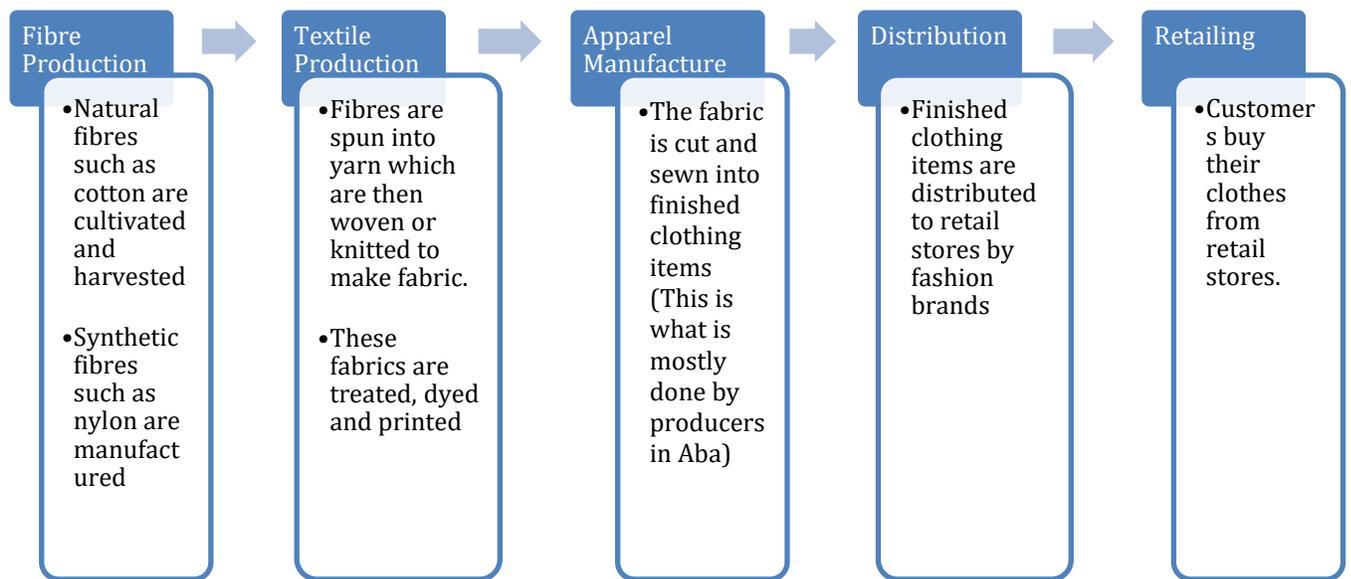
#### 3.2.1 The Garment Industry

The garment industry is involved in the production of clothing or garments, beginning with textile production, moving into the production of apparel up to fashion retailing. The textile industry involves the design and production of fabric from fibres like cotton or wool. The fabrics produced by the textile industry are then converted by the apparel industry into clothes, which are sold on to consumers by the fashion retailing industry.

The fibre and textile industries are generally more capital intensive and less labour intensive than the apparel manufacturing sector. Additionally, these sectors tend to have larger production units and employ more sophisticated technology than the apparel production sector. (Dicken, 2007). Figure 1 below describes the key value chains in the global garment industry:

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<sup>3</sup> Institute for Strategy and Competitiveness



**Figure 1: A summary of the garment industry value chain**

In 2016, the value of global textile yarn exports was \$49.6 billion and the top three exporters were China (\$10.9 billion), India (\$5 billion) and the USA (\$3.2 billion) while global apparel exports were \$143.6 billion with China (\$44.5 billion), Bangladesh (\$9.55 billion) and Vietnam (\$ 7.3 billion) as the top three exporters<sup>4</sup>. The entire global fashion industry (although this includes shoes, clothing accessories etc., too) was worth an estimated \$2.4 trillion in 2016<sup>5</sup>. Textile and apparel production, particularly apparel production, are labour intensive activities so production tends to move to countries with low labour costs. China has long dominated the production of these goods due to its large workforce and relatively low labour costs. However, as labour costs in China have increased in recent years, production is shifting to lower cost production centres such as Bangladesh, India, Vietnam and Cambodia.

The fashion industry grew by an average of 5.5% per annum between 2006 and 2015 according to the McKinsey Global Fashion Index and since population and income growth mostly drive growth in this industry, it is expected that with the exception of periods of slow global GDP growth, these industries will continue to experience strong growth.

### **3.2.1.1 The Historical Dynamics of the Global Garment Industry**

Developing a garment production sector is usually one of the first stages of industrialization for developing countries. This is mostly due to the fact that apparel production is less capital intensive and requires less sophisticated technology than most other manufacturing sectors, and that it is quite labour intensive giving countries with lower wage levels a competitive advantage. Textile

<sup>4</sup> Source: UN Comtrade

<sup>5</sup> Source: McKinsey Global Fashion Index

production usually follows apparel production as the country develops more manufacturing expertise and seeks to reduce costs by producing textiles closer to where they are utilized.

World apparel production centres have typically tended to shift based on a combination of labour costs, low manufacturing costs and expertise and export costs. Labour costs are usually determined by the level of development and the labour supply of the country, manufacturing costs by the quality of infrastructure, and export costs by the presence/absence of trade tariffs and the distance to the major importing countries.

In 1980, Korea's share of world clothing exports was 7.3% while China's was only 4%. As China liberalized its economy, invested in infrastructure, and joined the World Trade Organization in subsequent years, its share of world exports rose to 23% in 2003 while Korea's fell to 1.6%. Korea's decline as a textile exporter was mainly because of increased exportation costs as a result of the Multi-Fibre Arrangement (MFA) which regulated the global textile and apparel industries from 1974, and which restricted exports from the large exporters at the time (including Korea). Bangladesh on the other hand only accounted for a negligible share of world exports and as a result, it was excluded from the MFA. During the same period it came from a 0% market share to account for 1.9% of global exports. Even after the MFA was abolished in 2005, Bangladesh's apparel sector continued to grow as a result of its low labour costs; Bangladesh is now the 2<sup>nd</sup> largest apparel exporter with 6.7% of the world market and a growing textile industry as well.

Nigeria is currently at the first stage in the sequence of development in the garment industry where simple garments are produced primarily for domestic consumption. To move up the garment production value chain, Aba will have to invest heavily in transport and energy infrastructure to reduce manufacturing costs and take advantage of trade agreements (such as the African Growth and Opportunity Act) to increase exports to developed countries. Labour costs in Nigeria are slightly lower than costs in Bangladesh, which is the current low-cost producer, however, as the sector grows and exports increase wages would likely increase and Nigeria's cost advantage could be eroded.

### **3.2.2 The Leather Goods Industry**

The leather goods industry includes all the processes in the manufacture of finished leather goods from the conversion of raw animal hides to leather, to the manufacture of finished goods such as footwear and bags from the leather. The leather goods sector in Aba mostly deals with converting processed leather into finished leather goods like footwear, belts and bags. Global exports of manufactures of leather were valued at \$5 billion in 2016 with China (\$1 billion), Italy (\$391 million) and France (\$346 million) as the three largest exporters.



**Figure 2: A simplified leather goods value chain**

The most significant leather product produced in Aba is footwear, specifically women’s footwear. Global exports of leather products in 2015 were \$4.6 billion compared to exports of footwear (including leather and non-leather footwear), which were worth \$130.7 billion. This represents a growth opportunity for producers in Aba who could be retrained to apply their skills in the production of leather footwear to the production of other types of footwear in order to tap into this larger export market. Although labour costs are significant in footwear production, they are not as significant as in the apparel sector so to grow their exports, producers in Aba will have to become more productive and produce original designs that can appeal to a wider audience. This will require large investments in machinery, infrastructure and education.

### 3.2.3 The Leather and Garments Industries in Nigeria

The National Bureau of Statistics (NBS) groups the Textile, Apparel and Footwear sectors together. In 2016, this sector contributed N2 trillion (\$6.6 billion) to Nigeria’s GDP or approximately 2% of Nigeria’s total GDP. However, the sector’s share of exports is far lower than 2%. The NBS only reports data for Nigeria’s top 15 export categories, with the smallest of these categories only accounting for 0.11% of exports. Since the textile, apparel and footwear sector is not one of the top 15 export categories, we can conclude that it accounts for less than 0.1% of Nigeria’s exports – far below its contribution to GDP. This implies that if productivity in the sector can be increased to the level of productivity in the exporting sectors, there is room for a substantial increase in exports.

## 4 Description of Aba and the Garment and Leather Goods Clusters in Aba

### 4.1 Geography of Aba

Aba, a city of 72 sq. km, covering two Local Government Areas (Aba North and Aba South) is located in southern Abia State in the South East of Nigeria. Aba is to the south of Umuahia, the Abia State capital (see Figure 3)

Although there are no airports in Abia State, Aba is approximately two hours away from the airports in Port Harcourt, which is to the southwest of Aba, Owerri to the northwest and Uyo to the east, making it relatively accessible by air. However, the quality of the roads linking Aba to these airports is generally bad which increases travel time to and from Aba. On large stretches of these roads, an entire lane could be unmotorable resulting in both oncoming and going traffic having to share the same lane. Even on the sections of the road, which are motorable, there are typically numerous potholes, which result in a stop-start driving experience.

Aba is only 63km (a journey of about 2 hours) away from the Onne Port Complex in Rivers State, 144km from the one in Calabar and about 400km away from the Cameroonian border, which should, in theory, make it easier for producers in the area to export their goods. However, the Calabar and Onne ports are under-utilized which means that many imports to Aba still go through the Lagos port which is 600km away from Aba, increasing the time and cost of transporting goods to and from Aba.



Figure 3: A map showing Aba and the surrounding major cities

## 4.2 The Garment and Leather Goods Clusters in Aba

The Aba Industrial Cluster is commonly referred to as one large cluster, which produces both leather goods and garments. In fact, the Aba Industrial Cluster is made up of smaller, distinct clusters, which specialize in separate aspects of production and distribution of the products in the Aba Cluster. The Aba area can be said to consist of two clusters i.e. the finished leather goods cluster located primarily in the Ariaria Market and the garment production cluster located in the Aba City Centre. The finished leather goods cluster consists of four sub-clusters; Bakassi, Power Line, Shoe Plaza and Nwaogu while the garment cluster has two sub-clusters – Garment Village and the Ekeoha Shopping Centre cluster. This section describes the physical features of the different clusters and sub-clusters in the leather and garment sectors, the similarities and differences between those areas, and how their unique physical characteristics contribute to or hinder the development of the clusters.

### 4.2.1 The Garment Cluster

The garments sector of the Aba Industrial Cluster is built around three main activities – mass production of apparel, small-scale production of apparel and sales of textiles (wholesale and retail). These activities are concentrated in different areas of the Aba City Centre; large-scale apparel production mainly takes place in the Garment Village sub-cluster located in the Aba City Centre (known unofficially as Amanmogho by natives of Aba) off Ngwa Road (see Figure 4). Small-scale apparel production and textile sales are mainly located near the Ekeoha Shopping Centre, clustered around Kent Street and Mosque Road and the perpendicular streets such connecting them (see Figure 4).

#### 4.2.1.1 Garment Village

Garment Village is a nominally residential neighbourhood consisting of blocks of flats, which have mostly been converted to apparel producing factories. As seen on the map in Figure 4, apparel production in this area is clustered around Ngwa road and its perpendicular streets from Victoria Road to Ohanku Road. Most garment producers operate on the perpendicular streets and sell their goods at the Ngwa Road market on the market days (Mondays, Wednesdays and Fridays). The streets closest to Ngwa Road have the highest number of producers operating in the area with activity dropping off the further away one gets from Ngwa Road.

The roads in this cluster are mostly uneven, potholed and narrow dirt roads. Many of the roads in the cluster are unmotorable which means one usually has to use a motorized tricycle or “keke” to get around the cluster. There are approximately 600 independent producers working in this cluster with between 5 and 10 employees. Due to the residential nature of the area, the tailors work in rooms meant for families to live in rather than in purpose-built factory spaces. This limits the size of the factories and the productivity of workers as smaller operating spaces limit the

number of tailors that can collaborate on a specific piece of clothing. Modern clothing factories use some assembly line principles, which would be impossible with the small working spaces producers in Aba have.

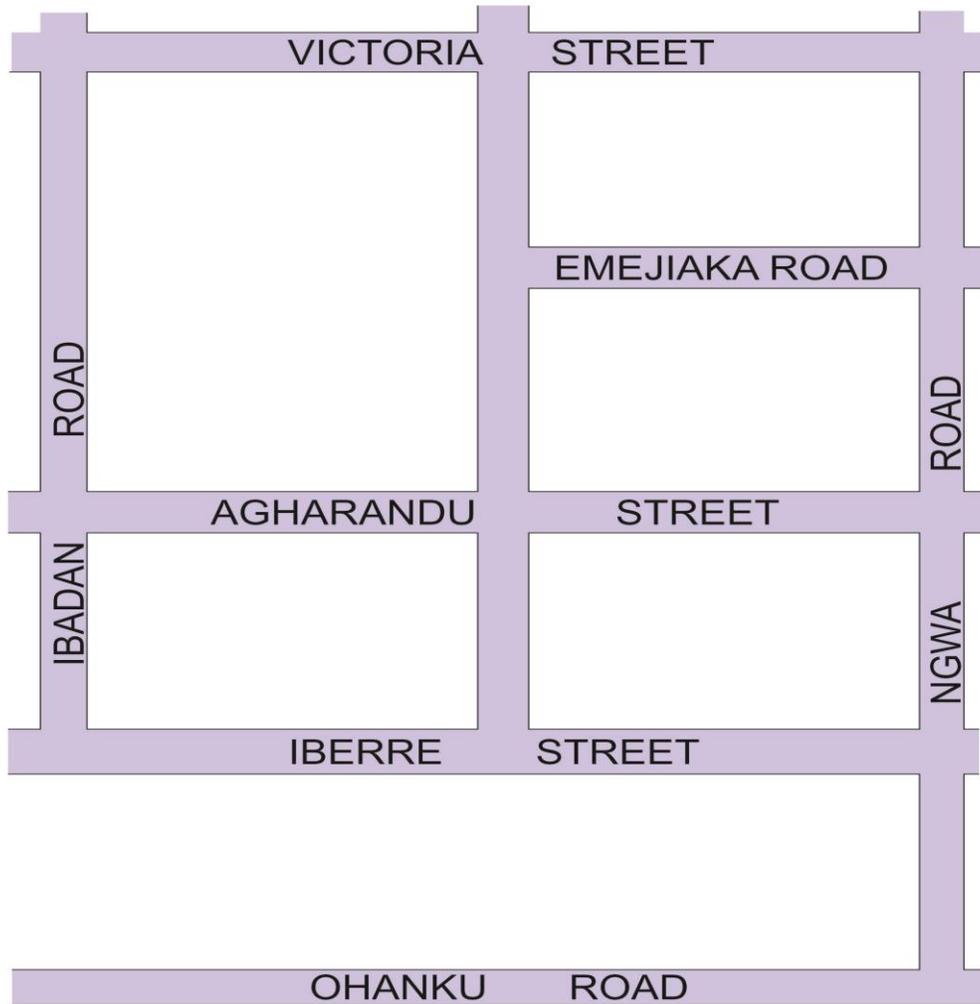


Figure 4: A map of the Garment Village sub-cluster

#### 4.2.1.2 Ekeoha Shopping Centre

The Ekeoha Shopping Centre cluster mostly consists of textile wholesalers and retailers and small-scale production of apparel (less than five tailors). The small-scale apparel producers who were our focus mostly operate on Kent and Mosque Roads and the perpendicular streets that connect them from Azikiwe Road to Clifford Road. Additionally, there are smaller alleyways (known locally as lines) in between these major streets, which have large numbers of producers operating on them.

In contrast to the Garment Village cluster, the Ekeoha Shopping Centre cluster is in a fully commercial and well-planned neighbourhood. The planned nature of this cluster makes moving around the area much easier than in the Garment Village cluster. Movements in the area are also made easier by the relatively better condition of the roads. Roads are mostly paved although potholes are quite common.

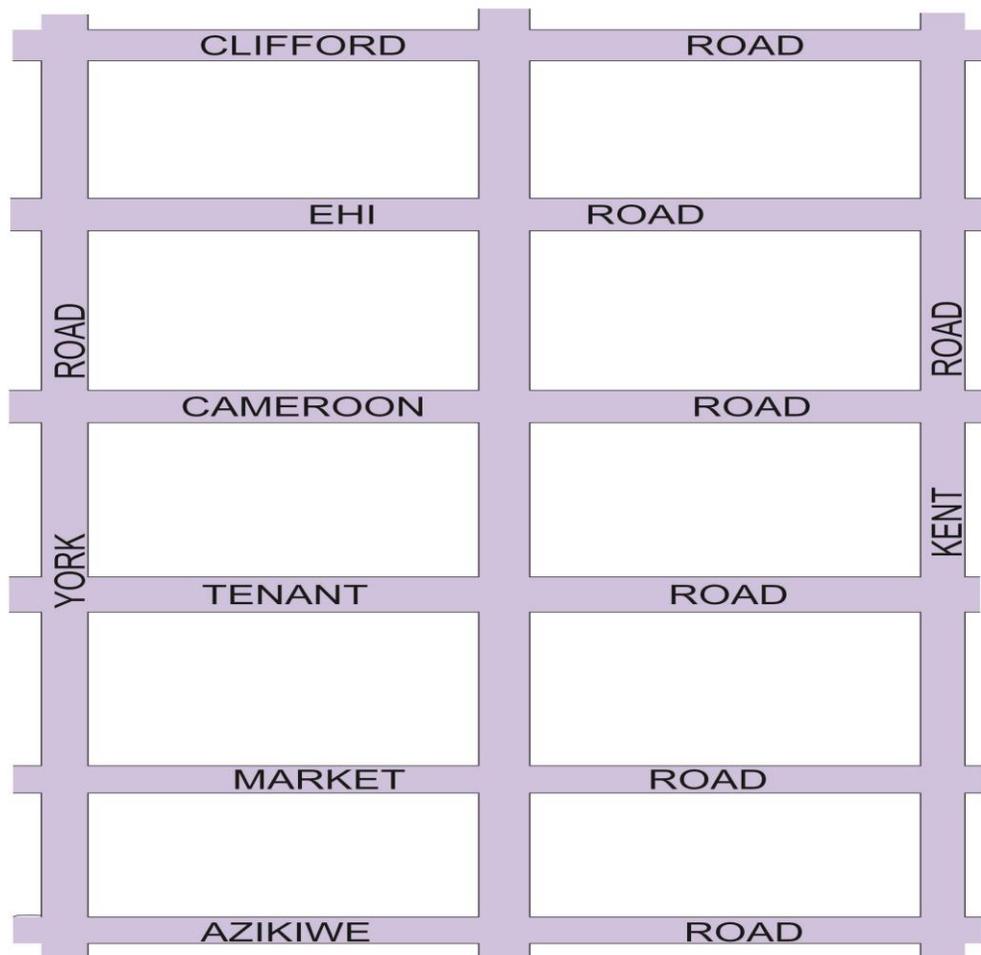


Figure 5: A map of the Ekeoha Shopping Centre cluster showing the major roads

## 4.2.2 The Leather Cluster

Leather goods producers mainly operate in the Ariaria Market. There are four leather goods sub-clusters; three of these areas – Power Line, Bakassi, and Shoe Plaza – specialize in shoe production while the fourth, Nwaogu, specializes in the production of bags.

### 4.2.2.1 Power Line

The Power Line Cluster consists of two parallel streets (one longer than the other) and a perpendicular street connecting both of them in the shape of a 4 (see Figure 6). The buildings in the area are mostly single producer market stalls with between 5 and 10 workers per shop. There are approximately 650 shops in the Power Line cluster located on both sides of the roads, almost all producing and selling women's shoes using simple machines. The roads in the power line area are mostly paved but they are riddled with potholes, which makes navigation difficult.

### 4.2.2.2 Bakassi

Like Power Line, the Bakassi cluster also specializes in women's shoes. Bakassi is located on an approximately 1km stretch of muddy, unpaved road with producers lining both sides of the street with 51 smaller "lines" running perpendicular to the main street. There are approximately 200 shoe producers lining the main street with a further 1200 shops on the lines. The producers in Bakassi are organized according to their lines with the lines functioning as cooperative societies or unions.

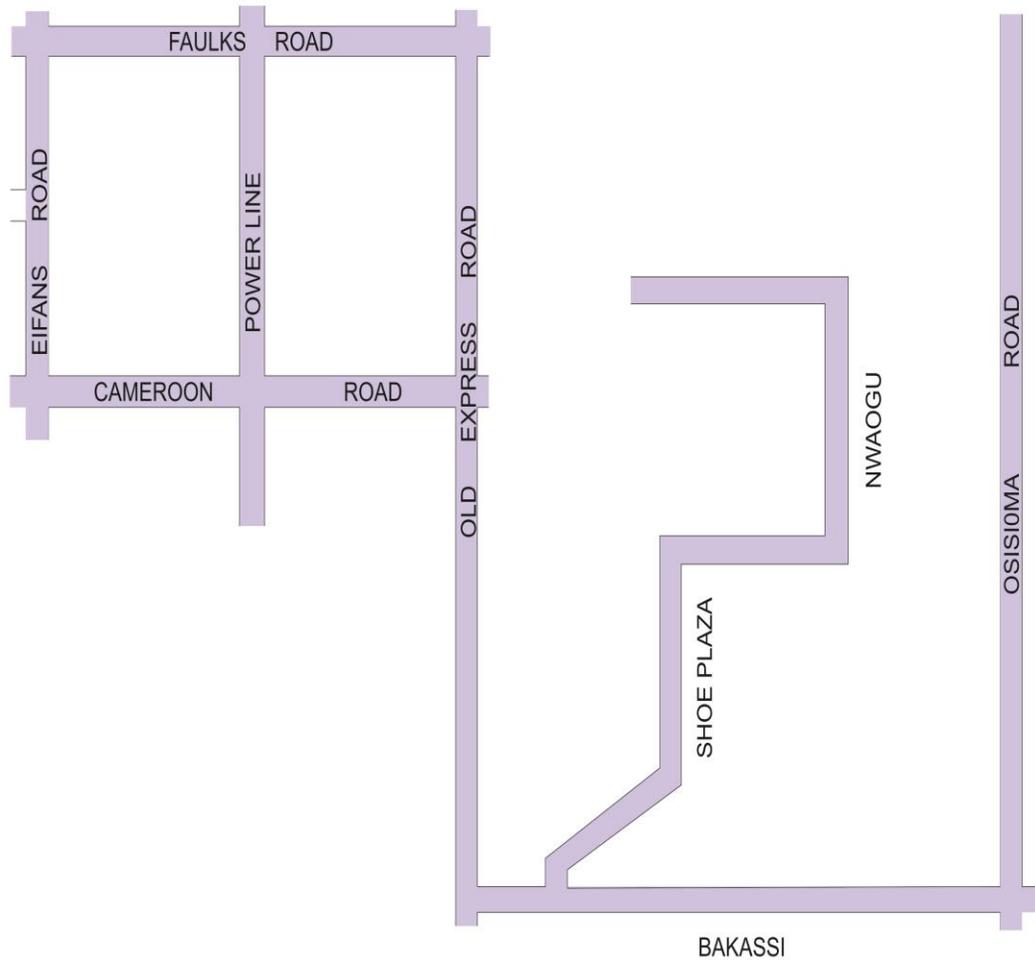
Due to the poor nature of the roads, there is very little car traffic in Bakassi. Most of the vehicular traffic in the area is by motorcycles and tricycles. Bakassi is the biggest of the four leather producing clusters.

### 4.2.2.3 Shoe Plaza

Shoe Plaza, the men's shoe cluster, is located on a street perpendicular to the Bakassi cluster. The Shoe Plaza road is an unpaved and bumpy dirt road, which is too narrow for any kind of vehicular traffic so goods are transported in and out of the cluster using wheelbarrows. There are over 90 shops on the main Shoe Plaza road with approximately 1200 additional shops on about 40 connecting lines and an estimated average of three employees per shop. Just as in Bakassi, the producers in Shoe Plaza are organized according to their lines.

#### 4.2.2.4 Nwaogu

The other major leather goods cluster in the Ariaria market is the Nwaogu cluster which shares a connecting road with the Shoe Plaza cluster (see Figure 6). The Nwaogu cluster mostly produces bags of all kinds such as women's bags, luggage and school bags. The road is narrow and unpaved with roughly 300 shops in the cluster, each having approximately three employees.



**Figure 6: A map of the leather goods cluster in the Ariaria Market. Faulks Road was recently renovated which should increase the ease of traveling to and from the cluster.**

## 2: The Features of the Individual Sub-Clusters

	Number of Businesses	Average Number of Employees	Major Products	Percentage of Firms that Export	Percentage of Firms that are Registered	Major Constraints
<b>Garment Cluster</b>						
<b>Ekeoha Shopping Centre</b>	650	3.7	Senator Suits	26%	8%	Poor Power Supply Poor Roads Access to Finance
<b>Garment Village</b>	600	5	Gowns, dresses, blouses, skirts, underwear, dress shirts, t-shirts and polo shirts	10%	4%	Poor Power Supply Poor Roads Access to Finance
<b>Leather Goods Cluster</b>						
<b>Bakassi</b>	1500	4.9	Women's shoes, sandals and slippers	29%	5%	Cost, Quality and Availability of Raw Materials Access to Finance Poor Roads
<b>Power Line</b>	650	4.4	Women's shoes, sandals and slippers	22%	7%	Access to Finance Cost, Quality and

						Availability of Raw Materials Poor Power Supply
<b>Shoe Plaza</b>	1300	3.7	Men's shoes, sandals and slippers	20%	11%	Access to Finance Cost, Quality and Availability of Raw Materials Poor Power Supply
<b>Nwaogu</b>	200	3.7	School bags, travelling bags, briefcases, purses	58%	0%	Poor Power Supply Access to Finance Cost, Quality and Availability of Raw Materials

## 5 Findings From Our Survey and Observation of the Aba Leather and Garment Clusters

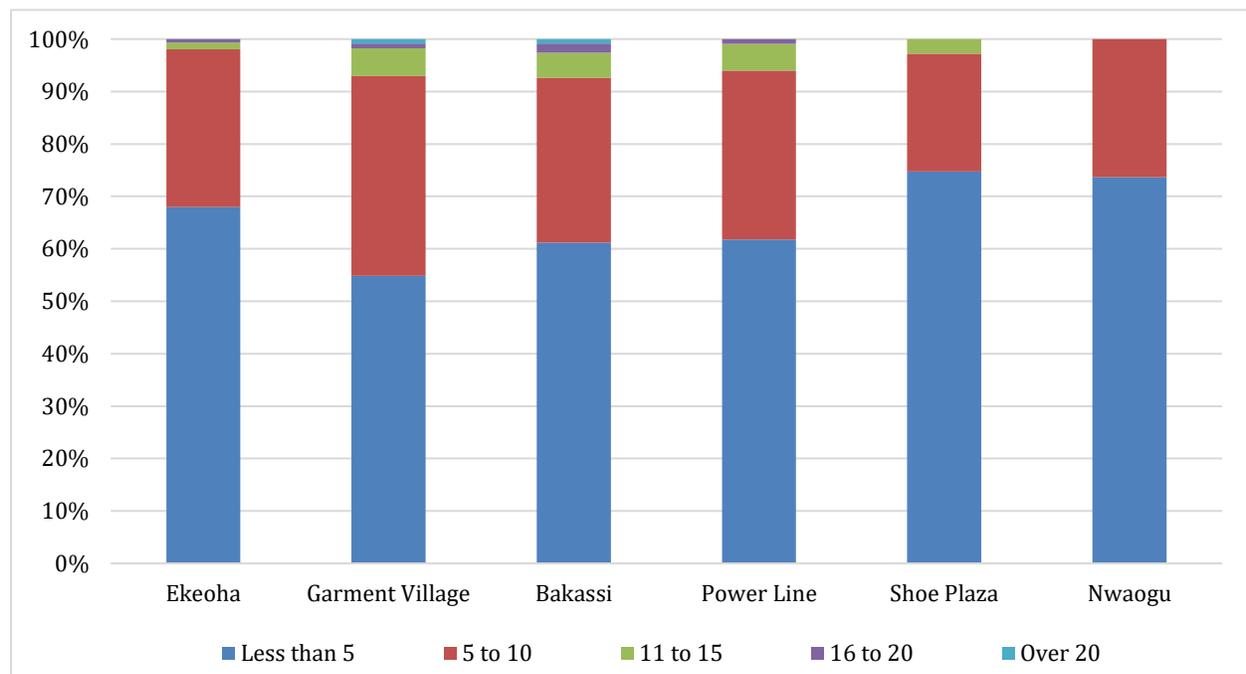
This section contains an analysis of the data obtained from the surveys and interviews with producers / firms. While the clusters and sub-clusters have unique physical and organizational characteristics which are dictated by the differences in their products, customers, production techniques, locations etc., there are some noticeable common features present in all clusters. This section discusses both the general and specific features of the industrial clusters and sub-clusters and the implications these features have for growth and productivity. The general features are discussed before a discussion of the unique features of the sub-clusters.

### 5.1 General Features

The most important of the common features we identified are:

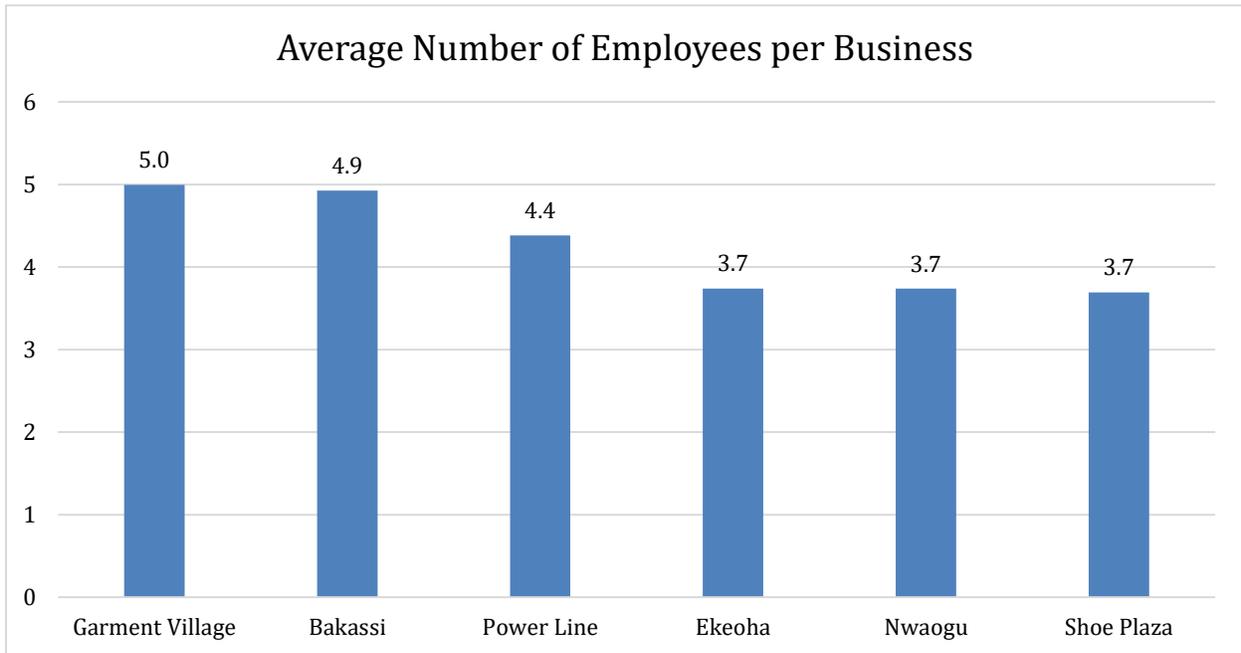
**Fragmentation:** The majority of the producers in the region (95% of producers across all clusters) are small scale producers with fewer than 10 employees per establishment. All the sub-clusters have less than five employees per business on average.

**Figure 7: Distribution of employee numbers by sub-cluster**



*Source: Time Economics Survey*

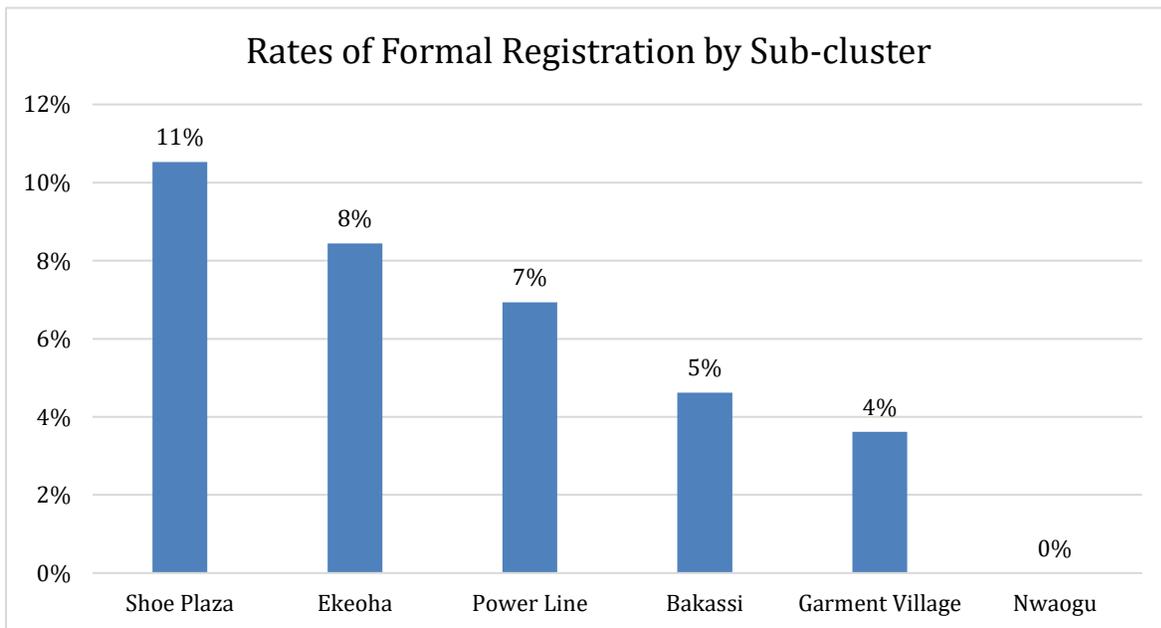
**Figure 8: Average number of employees per business for each sub-cluster**  
 Source: Time Economics Survey



Source: Time Economics Survey

**Firms are largely informal:** The businesses in the cluster are mostly informal with only 6.1% of all businesses across the sub-clusters registered with the Corporate Affairs Commission (CAC).

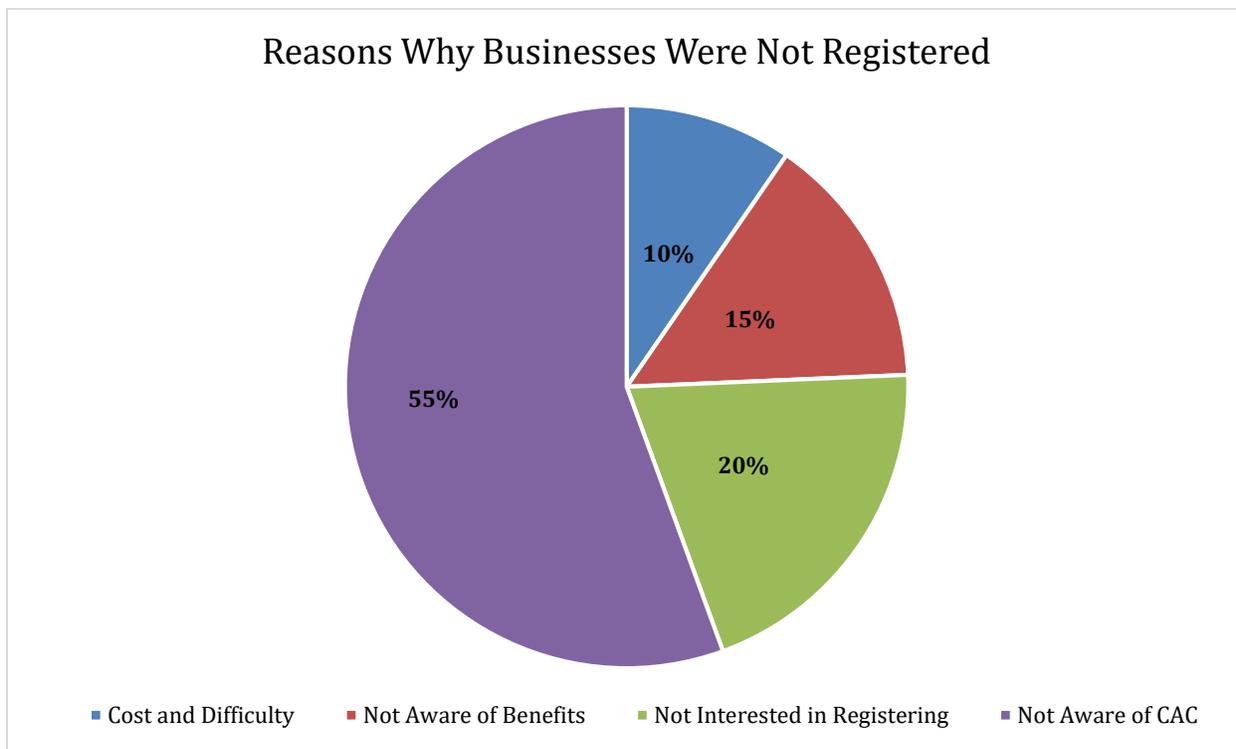
**Figure 9: Percentage of firms that are formally registered with the CAC for each sub-cluster**



Source: Time Economics Survey

Some of the major reasons producers gave for not registering their businesses were ignorance of the existence of the CAC or of the need to register, not being interested in registration, not being aware of the potential benefits of registering and the cost and difficulty of the registration process. Although there is currently a low rate of registration in the cluster, after they were informed about registration and the benefits were explained, 83.3% of unregistered businesses were willing to register their businesses.

**Figure 10: Reasons unregistered firms gave for not being registered**  
**Source: Time Economics Survey**

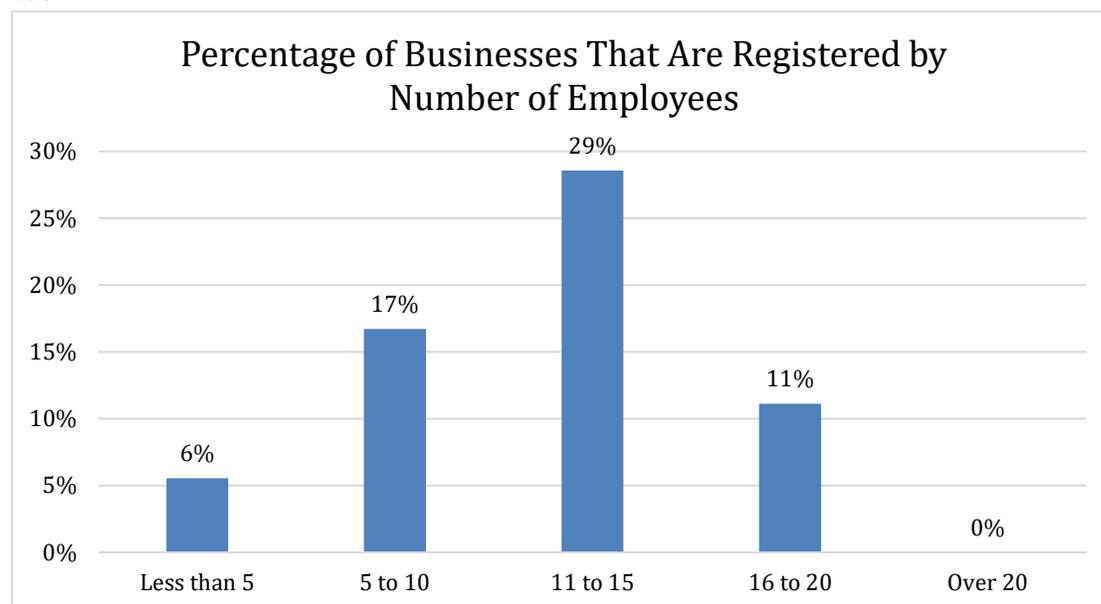


**Source: Time Economics Survey**

Registered businesses have more employees on average than unregistered businesses with 6.5 employees on average compared to 4.2 for unregistered businesses.

There is a clear relationship between the number of employees a business has and whether or not it is registered (Figure 11). Although the data shows that the percentage of registered businesses falls when a business has more than 15 employees, this is likely because of the small number of these businesses we found in the clusters. Only 1% of businesses in the clusters with more than 15 employees so the percentage of firms that are registered among those large firms could vary depending on which of those firms were surveyed.

**Figure 11: Percentage of registered firms categorized according to the number of employees the firm has**



*Source: Time Economics Survey*

**Organization of firms into producer unions:** Although very few producers in the region are registered with the CAC, majority of them are registered with producer unions particularly in the leather clusters where all producers are organized according to “lines” which functions as a producer union.

**Production techniques are predominantly low-tech:** Producers primarily utilize simple machines or no machines at all in the production of their goods. This problem is more severe in the leather cluster where most producers use only hand operated tools, compared with the garment cluster where the sewing machines are usually powered by electricity.

Very few producers have access to new industrial machines that would improve their productivity. There are industrial machine operators in some clusters who charge other producers to use their machines while in other clusters some producers pool their resources to buy machines that they would be unable to afford on their own.

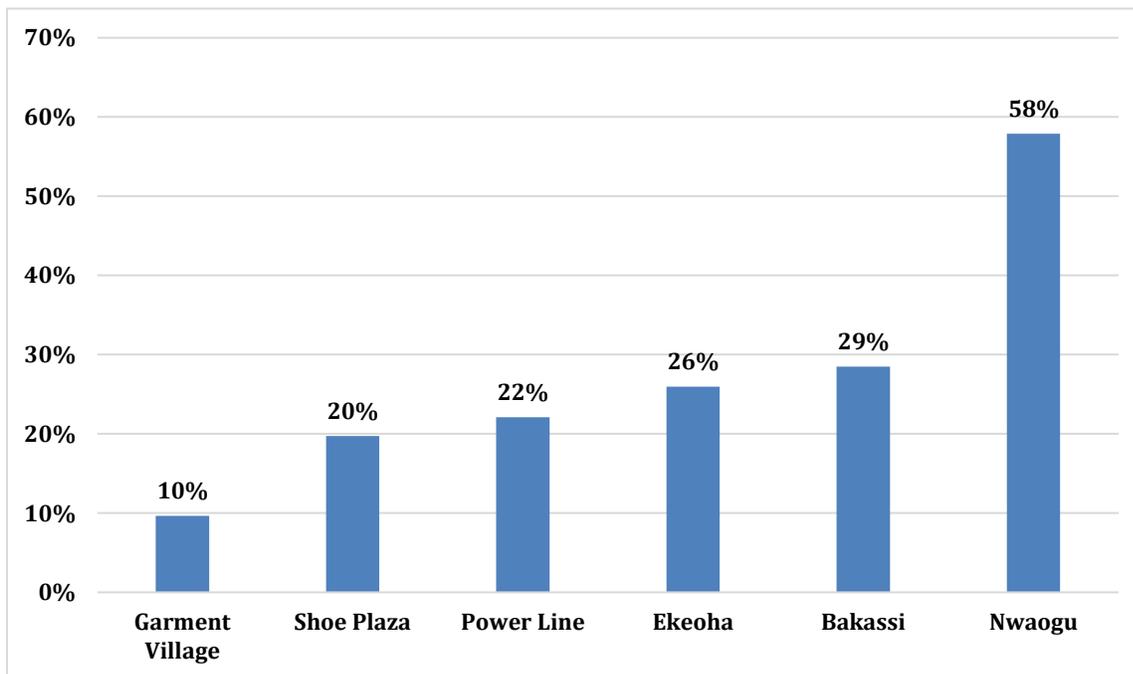
**Product designs are mostly replications of Western designs:** Probably as a result of consumer tastes and preferences, most of the designs are replications of established Western brands. Some goods even bear labels claiming that the goods were manufactured in another country or bear logos of foreign fashion brands to overcome the stigma of inferior quality associated with Made in Aba goods.

**Lack of standardization:** The goods produced in the leather and garment clusters are not properly standardized in terms of size i.e. there is no industry wide agreement on what the dimensions of a “Large” or “Medium” sized piece of clothing are.

**Poor public infrastructure:** The clusters suffer from poor public infrastructure provision such as power, transport infrastructure and sanitation services. The Ekeoha Shopping Centre garment sub-cluster has the best infrastructure by virtue of its location in a commercial area in the Aba City Centre. The leather cluster in the Ariaria market have uniformly poor infrastructure with unpaved, bumpy dirt roads and poor sanitation services.

**Products are primarily consumed domestically:** In total, only 21.5% of businesses export their products. Even among those who export, the amount of goods exported compared to those sold domestically is quite low and reliant on personal relationships local producers have with foreign retailers or wholesalers.

**Figure 12: Percentage of Businesses in the Sub-Cluster that Export**



*Source: Time Economics Survey*

The most common export process involves a foreign buyer placing a bulk order with a local producer with whom they have a prior trading relationship who then sends the goods across the land borders using transport and logistics companies such as Chisco and ABC Transport. Foreign buyers who are placing smaller orders sometimes come to the Ariaria or Ngwa Road markets to buy goods which they then carry across the borders by themselves.

91% of businesses that export is primarily to the West and Central African region with Cameroon, Benin, Ghana, Togo and Niger as the major destinations, while a further 3% export primarily to Southern and Eastern Africa. Even among producers who export, the level of exportation is quite low and the exportation processes are generally informal

**Raw materials are mostly imported:** Although the producers get the raw materials they use (textiles and leather) from markets located in Aba, these raw materials are generally imported, with China as the major source for the leather and textiles used in both clusters. 100% of survey respondents reported getting their textiles from markets in Aba, and although we did not survey these material importers, informal conversations with some of the largest ones revealed that the materials they sell are imported from China. In the garment cluster, some retailers reported getting their textiles from a textile mill in Lagos but this is not common. A few producers in the leather cluster get their leather from South Korea, as this is believed to be of higher quality than Chinese leather but again this is not common due to the higher cost.

**Supplier concentration:** Due to the large concentration of producers in the clusters, there is a correspondingly high concentration of suppliers of inputs such as textiles and leather hides. There are large numbers of traders involved in textile sales in and around Ekeoha Shopping Centre, New Market and Ngwa Road Market while leather suppliers are concentrated in Ariaria Market, close to the producers of finished leather goods.

**Education and knowledge sharing occurs through apprenticeship:** The primary channel for education and skill acquisition in the clusters is through the apprenticeship system; 87% of firms in the clusters have at least one apprentice working for them. Apprentices agree to work for a fixed period for low wages (sometimes apprentices are not paid wages directly but they have their needs taken care of by their employer) while they learn the trade from their employer.

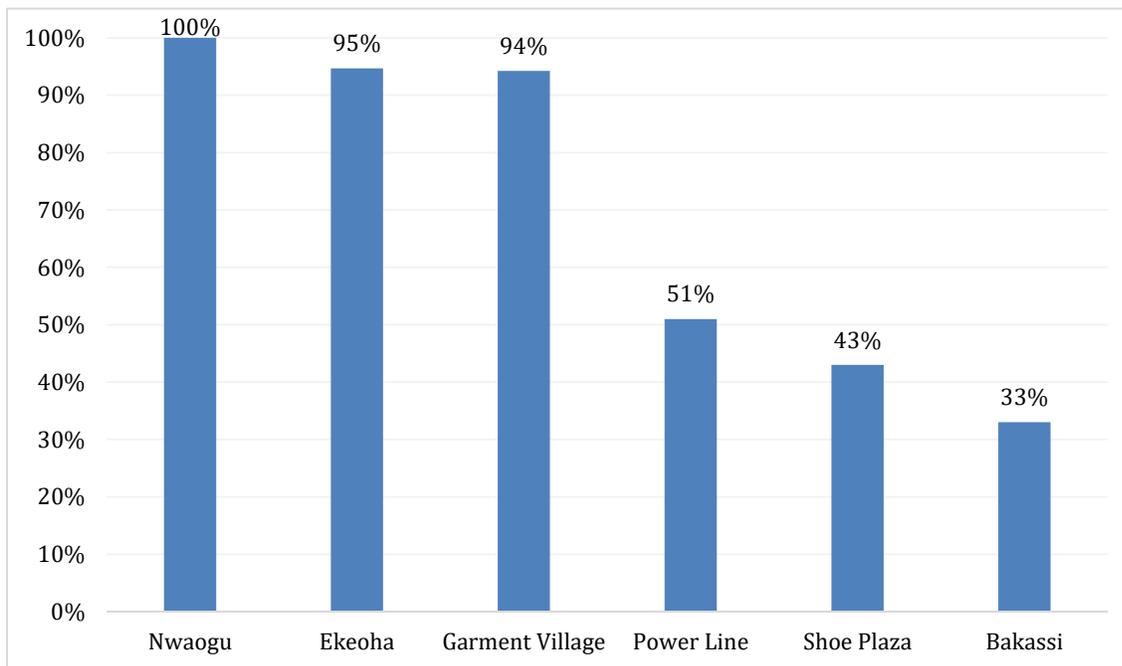
## 6 Growth and Productivity Analysis

### 6.1.1 Major Constraints to Growth and Productivity

Our research shows that the clusters and their sub-clusters typically face the same growth constraints, although the degree to which these constraints affect their productivity varies from cluster to cluster. The major growth constraints we identified were:

**Erratic and inadequate power supply:** Nearly all respondents in the garment cluster identified the quality of their power supply as a major constraint to the growth of their business. This mainly stems from the fact that they mostly use electric sewing machines and so a power cut interferes with their production process or, if they have no generator, completely stops it.

**Figure 13: Percentage of Survey Respondents Reporting Power Supply as a Constraint**



*Source: Time Economics Survey*

The poor power supply is harmful in two ways. The first is that it makes a generator a necessity for the smooth operation of the business. This results both in increased start-up costs, as any new business in the area has to invest in a generator, and higher costs of production, as producers have to constantly buy diesel or gasoline to run their generators. In addition to higher costs, the prevalence of generators in the area is a source of air and noise pollution. This is particularly harmful as the producers typically work in small, crowded spaces where generator smoke is likely to cause health problems. Some of the producers we spoke to in the area complained of health problems caused by inhaling generator smoke daily.

The second way in which the poor power supply is harmful is its unpredictability; producers have no warning before a power cut and so it is difficult to plan their production process around the power issues. This means that a tailor might have to abruptly stop sewing an item if there is a

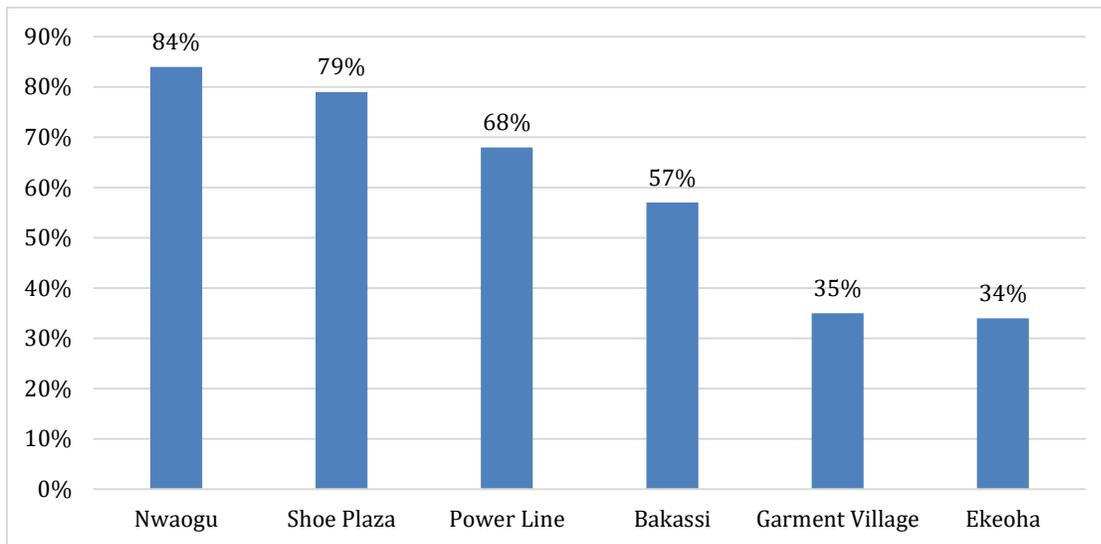
power cut. In addition to its negative impact on productivity, this will also affect the quality of the final product. Therefore, this uncertainty drives up cost, reduces productivity, and increases waste and disruption.

The poor power supply is a bigger constraint for garment producers than for leather producers. However, this is not because leather producers have a better power supply; in fact some of them are not connected to the grid at all. Leather producers typically use fewer electric-powered machines in their production process than the garment producers and so many of them do not experience the poor power supply as a daily operational constraint. However, the poor power supply is a significant growth constraint for them as well because some would like to upgrade their machines but they are unable to do so since they are not connected to the power grid. Among those who currently have a grid connection and are using electric machines, the poor power supply is just as much of a constraint as it is in the garment cluster.

***Access to finance:*** As a result of the largely informal nature of the businesses in the area, many of them are unable to access loans to expand their business. Producers in both the garment and leather clusters regularly spoke of the poor quality of the machines they were using as a constraint on their productivity. These producers have mostly been unable to upgrade their machines because they cannot access loans from commercial banks and microfinance institutions in the area cannot supply the loan amounts they would need to upgrade their machinery. Many of these producers are also unable to access loans from government institutions such as the Bank of industry because they are unregistered and are unaware of the processes for getting such loans.

The implication of this is that they tend to rely on their retained profits, savings and family funds to undertake any business expansion. This results in a slow pace of growth and increases the personal risk of financial ruin for business owners in the region.

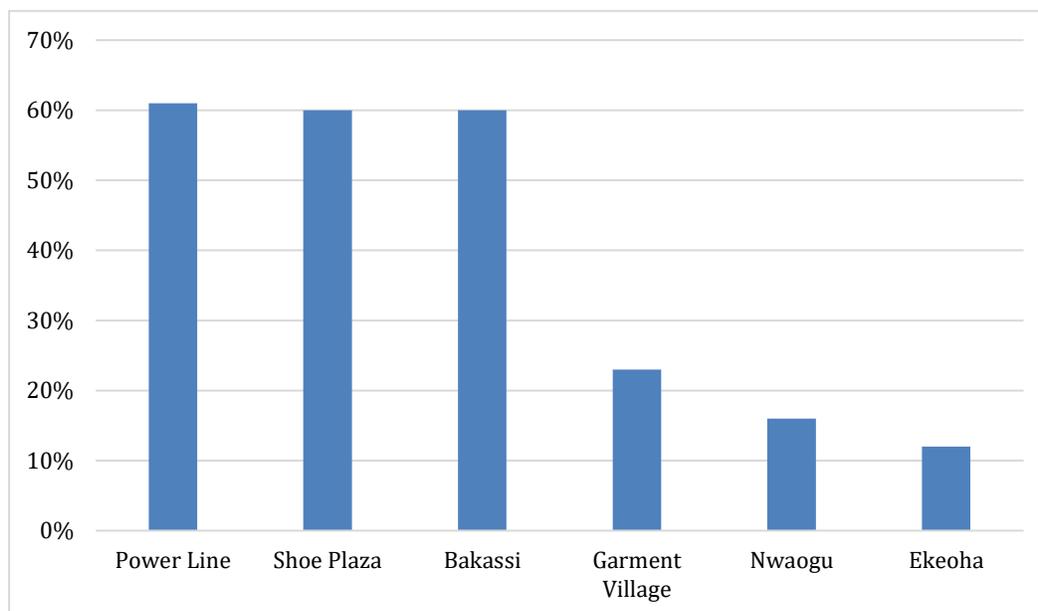
**Figure 14: Percentage of Survey Respondents Reporting Access to Finance as a Constraint**



*Source: Time Economics Survey*

**Cost, quality and availability of raw materials:** Producers in both clusters reported having issues with the supply of their raw materials although this is a bigger problem in the leather cluster than it is in the garment one (see Figure 15). For some producers, the high cost of raw materials was the most important constraint, as they either had to buy inferior raw materials, increase the prices of their products and face lower demand or suffer lower profits. Other producers complained that the quality of raw materials available was below the standards they needed to make high quality products while others reported not being able to find raw materials. These problems have become more severe in recent years due to the depreciation of the Naira, which has increased the cost of the imported raw materials. The high cost of imported raw materials has led to a decrease in the quantities of these raw materials or some critical inputs being replaced by inferior materials. As a result, some producers are unable to obtain enough raw materials to fulfil their customer orders while others are making lower quality goods, which draw complaints from their customers.

**Figure 15: Percentage of Survey Respondents Reporting Cost, Quality or Availability of Raw Materials as a Constraint**

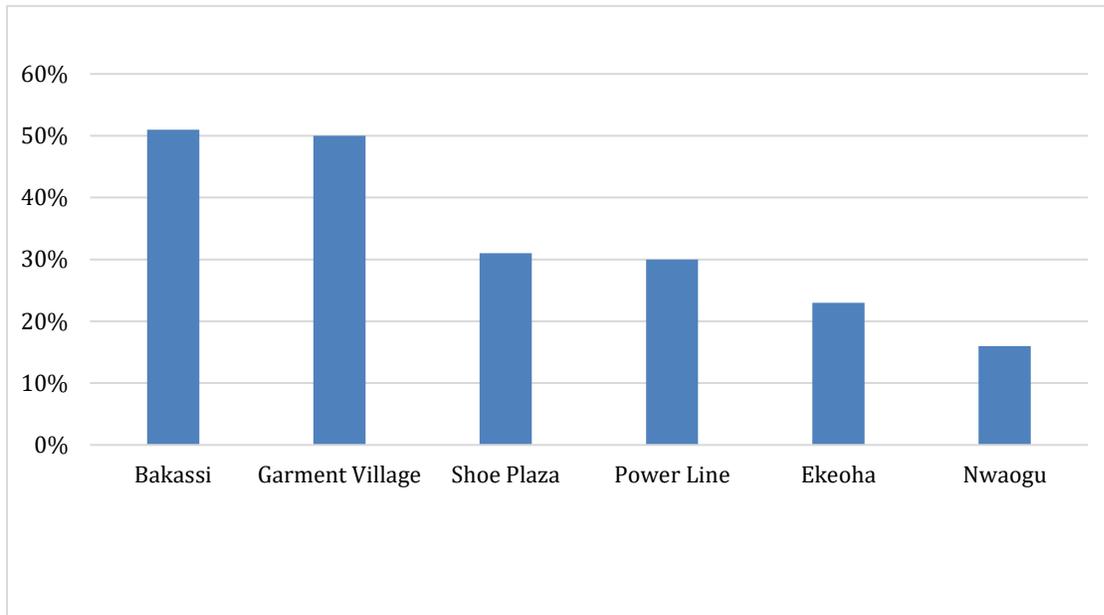


*Source: Time Economics Survey*

**Poor transport infrastructure:** The road links to the clusters and the roads in the clusters are typically extremely poor. With the exception of the Ekeoha Shopping Centre and Power Line sub-clusters, the roads in the clusters are unpaved. These poor roads increase the cost of transporting goods to and from the cluster and make the process more expensive. This erodes some of the competitive advantage in terms of low cost of raw materials (compared to other producers in Nigeria) that producers in the cluster have due to the concentration of suppliers around them. The bad roads in and around the clusters also deter some potential customers from visiting the cluster particularly for the Ekeoha Shopping Centre cluster where the customers are individuals who are the final consumers of the clothing they buy.

Similarly, the transport links into Aba both from Port Harcourt, Owerri and Uyo are poor which increases the cost of transporting goods to customers in other states in Nigeria or outside the country. This again erodes the cost competitiveness of goods produced in Aba for customers in other parts of the country.

**Figure 16: Percentage of Survey Respondents Reporting Bad Roads as a Constraint**



*Source: Time Economics Survey*

**Extortion and unfair taxation:** Some producers we spoke to reported being extorted by both government and non-government agencies. Although taxes are necessary to provide the public infrastructure and services, which the cluster needs, the way taxes are currently collected from the producers in the cluster amounts to extortion. Firms in the clusters pay taxes to both state and local government revenue boards, local government environmental boards and other organizations which issue licenses without which the firms are not allowed to operate. These taxes are not assessed transparently and are often levied on firms at irregular intervals.

During our interviews with the firms in the area, we heard reports of some of these agencies confiscating production equipment until these arbitrary levies were paid. Again, while it is important that businesses pay their taxes, it is perhaps even more important that these taxes are levied in a fair, transparent and predictable manner. It is also important that taxpayers see that these taxes are used to improve public service provision; firms are unlikely to understand why they are paying taxes to an environmental board when sanitation is extremely poor in their surroundings.

In addition to government agencies, some private organizations, typically vigilante groups, also extract their own levies. The most popular of these is the Bakassi levy, which is ostensibly paid for protection from armed robbers. However, this is similar to the protection rackets used by organized crime groups where those who refuse to pay the protection levy could end up being robbed by the vigilante groups themselves.

### 6.1.2 Competitive Analysis of Aba's Position in the Global Garment Industry

The global garment industry has historically been a starting point for developing countries looking to industrialize their economies due to its relatively low capital intensity, high labour intensity, low material costs. Therefore, in this section we will analyse the relative position of the garment industry in Aba to understand the paths for growth. This analysis will also provide useful lessons for the leather sector and other manufacturing sectors in Nigeria.

The garment industry in Aba does not include textile manufacturing as the textiles used in Aba are mostly imported from China. The garment industry activities, which take place in Aba are textile trading, mass and small-scale apparel production and distribution of clothing items. Our competitive analysis of the global garment industry and how Aba fits into this competitive landscape focuses on the mass producers of apparel in Aba. Textile traders are only considered to the extent that their work affects apparel production. The reasons for focusing on apparel producers and not textile retailers are:

**Potential for employment growth:** Textile retailing is not labour intensive therefore growth in the textile sales sector is unlikely to lead to a corresponding growth in employment and general incomes in the Aba area. As we have mentioned earlier, apparel manufacturing is very labour intensive given the difficulty of automating cutting and sewing of fabrics, therefore an increase in apparel production in Aba will necessarily create more jobs. However, there is need for a word of caution; while apparel production has proven to be extremely difficult to automate so far, advances in robotics and manufacturing techniques could change this in the future.

**Potential for export growth:** Since most of the textiles sold and used in the Aba area are imported, growth in the textile sector will do nothing to increase exports. Information gained from studying textile traders will not be helpful in developing strategies and policies to grow and support non-oil exports. Even if companies in Aba were to start producing textiles, given the capital intensity, highly skilled labour force, and technology needed for textile production, Nigeria is in a weak competitive position in textile production compared to established textile producers. On the other hand, capital intensity in clothing manufacture tends to be low, while labour intensity tends to be high, the average plant size is small and the technology is relatively unsophisticated. Additionally, a substantial proportion of the labour force is unskilled or semi-skilled (Dicken, 2007). This means that Nigeria is in a better competitive position in this sector than it is in the textile or fibre production sector.

**Sector dependency:** The growth of the textile sector in Aba is dependent on the apparel sector since apparel producers are the consumers of majority of the textiles sold. Therefore, growth in the apparel sector will inevitably result in growth for the textile sector, as apparel producers will increase their demand for textiles. Therefore there is little value in studying both sectors independently.

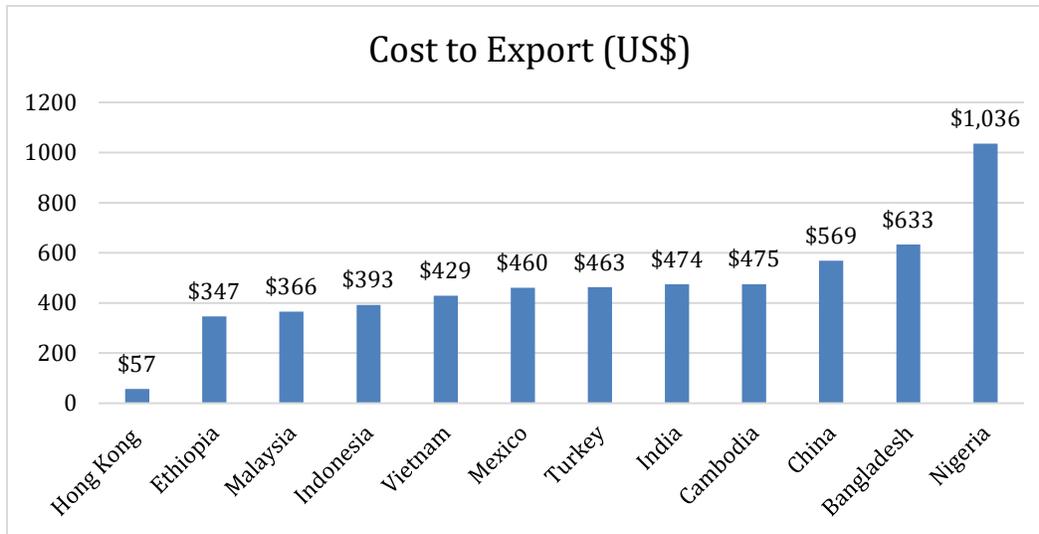
In order to determine how Nigeria and Aba can develop its clothing sector, it is important to understand the major competitive drivers in the apparel industry and to benchmark Aba's performance against the performance of major garment producing countries. The global garment industry is a buyer-driven one, which means that large fashion brands are influential in shaping the organization and geography of the industry (Dicken, 2007). According to (McKinsey & Company, 2011), the five main criteria that determine which countries fashion brands choose to source their apparel from are **price, quality, capacity, speed and risk**. We will evaluate Aba's performance on these 5 metrics compared to the world's ten largest exporters of apparel and Ethiopia to understand the prospects for Aba to increase its share of world apparel exports.

**Price:** The cost of apparel manufacturing is influenced by factors such as labour costs, energy costs, raw material costs etc. The most important of these is the cost of labour. Wages in Nigeria are competitive with the lowest cost producers in Asia when we consider the minimum wage, which is applicable in the garments sector (see Figure 17). However, wages in Nigeria are substantially higher than in Ethiopia, which is Nigeria's closest competitor in Sub Saharan Africa.



**Figure 17: Minimum wage applicable for the garment sector for the ten largest apparel exporters, Nigeria and Ethiopia (2014) using market exchange rates as at 14<sup>th</sup> November 2017.**  
**Source: International Labour Organization**

Even compared to producers in Asia, other production costs such as electricity, raw material and export costs (see Figure 18) make apparel produced in Nigeria uncompetitive. Factories in Aba have unreliable power supply, which drives up costs and reduces productivity compared to other countries with better power infrastructure. Additionally, Asian producers also tend to have local textile mills or are close to textile mills, which reduce the cost of raw materials.



**Figure 18: Cost to export from the ten largest apparel exporters, Nigeria and Ethiopia**  
**Source: World Bank Doing Business 2018 Report**

**Quality:** The determinants of the quality of apparel are the machines used in the production process, the skill of the producer, and the quality of the raw materials used. According to the producers we spoke to in the garments sector, their sewing machines are generally not state of the art as they cannot afford to purchase newer machines and they are unable to access credit to help them buy these machines.

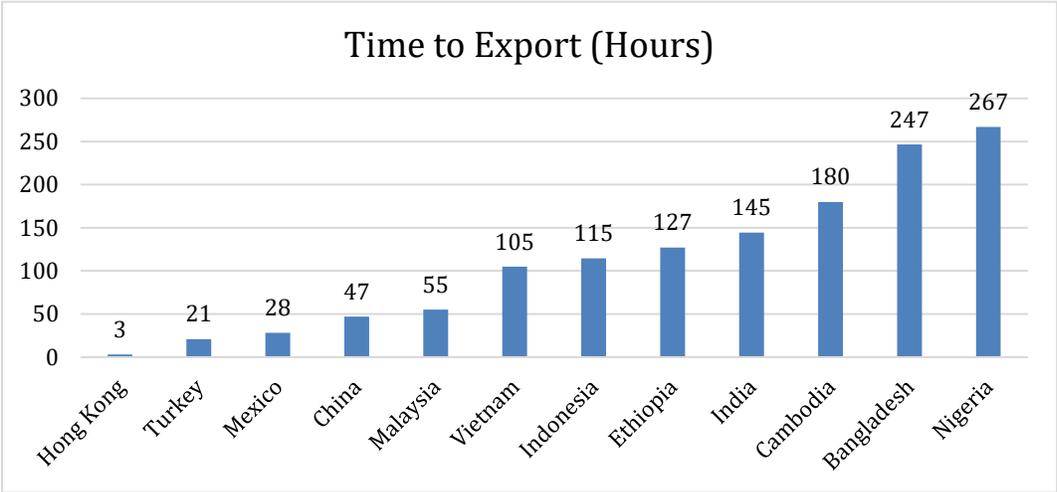
The producers in Aba also complained about the raw materials available as these are either too expensive or of poor quality and if they are unable to access or afford high quality textiles, they will be unable to produce high quality apparel.

Our research study did not collect any data with which to measure and compares skill levels of workers but given that the employees in garment factories in most garment producing countries around the world tend to be uneducated, the skill levels of workers in Aba are unlikely to be significantly lower.

**Capacity:** The capacity of a garment producing factory depends on the number of employees and the type of machines that are used. Due to the high level of fragmentation in the Aba clusters, the capacity of businesses in Aba is much lower than in large garment exporters. For example, the average number of employees per factory in Bangladesh is 892 compared to 4.5 for Aba. This effectively precludes producers in the Aba clusters from being contracted to make apparel for large international brands. Additionally the quality of machinery used also means that employees are less productive which further reduces their production capacity.

**Speed:** The speed includes the time to produce and the time to export. Time to produce is mostly determined by the productivity of the workers. Although we were unable to do a proper quantitative measurement of productivity in Aba, our research suggests that productivity in Aba is lower than in most large exporting countries.

Although Nigeria is closer to the USA and Europe than most Asian countries, less efficient customs and export processes means that the time for goods to reach their destination is probably higher for Nigeria than for many of these other countries.



**Figure 19: Cost to export from the ten largest apparel exporters, Nigeria and Ethiopia**  
**Source: World Bank Doing Business 2018 Report**

**Risk:** Nigeria is a risky location for apparel sourcing due to its unstable politics and its many security issues. Investors, especially foreign ones, are at risk of sudden policy changes, which could affect their business operations.

Aba has had its share of violent criminal activities in the past particularly in the early 2000’s when frequent attacks by armed robbers led to the formation of the Bakassi Boys vigilante group (the group likely took their name from the Bakassi cluster as they were formed to protect businesses in the clusters from attacks by armed robbers). Although the security situation has improved in recent years, the weakness of the police service means that the situation could worsen in the future especially since larger factories would make better targets.

Based on our surveys with producers in the Garment Village cluster, each worker in Aba produces approximately 55 pieces of clothing in an 8-hour work day<sup>6</sup> compared to the industry standard of 67<sup>7</sup>. Although this does not take the quality of clothing produced into account, it shows that productivity in Nigeria lags behind what other more advanced producing countries can deliver. In order to improve performance on four of these criteria (price, quality, speed and capacity), productivity in the Nigerian garment industry needs to increase substantially.

During our survey in the Garment Village cluster, we collected data on daily production from each store in the sub-cluster. We found the daily production per worker in each store, removed outliers and then found the average daily production per worker for the cluster. Based on this data, each

<sup>6</sup> These numbers are based on self-reported production data by producers and the numbers may not be accurate because producers do not always measure their production accurately and they may have over/underreported production. Therefore the productivity data is a rough estimate.

<sup>7</sup> Source: <http://softwearautomation.com/digital-t-shirt-workline/>

worker in Aba produces approximately 55 pieces of clothing in an 8-hour work day.<sup>8</sup> Although there is not much reliable data for daily production per worker from other countries, SoftWear Automation, a maker of autonomous sewing machines estimates that an average worker makes 67 shirts per day. Although this claim is not verified by independent studies, if it is inaccurate, it is more likely to be an underestimate rather than an overestimate given that an underestimate would make SoftWear Automation's products appear more useful.

Although this does not take the quality of clothing produced into account, it shows that productivity in Nigeria lags behind what other more advanced producing countries can deliver. In order to improve performance on four of these criteria (price, quality, speed and capacity), productivity in the Nigerian garment industry needs to increase substantially.

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<sup>8</sup> These numbers are based on self-reported production data by producers and the numbers may not be accurate because producers do not always measure their production accurately and they may have over/underreported production. Therefore the productivity data is a rough estimate.

## 7 Recommendations

Based on how Aba compares to other countries on the five criteria, the reasons for the low level of exportation from the cluster, and Nigeria in general, are quite clear. Given the amount of investment that would be necessary for Nigeria to catch up with the other countries, it is unlikely that Nigeria will become a major garment exporter in the short term. However, there are still a number of opportunities that Nigeria can exploit while it makes the necessary adjustments and investments necessary to turn Nigeria into a large scale apparel manufacturer.

This section contains a set of recommendations clusters for both private and public sector organizations that want to contribute to the development of the Aba leather and garment sectors including a timeline of steps that can be taken in the short term (0 -5 years), medium term (5 - 10 years) and long term (over 10 years).

Given Aba's infrastructural deficiencies in comparison to other major apparel exporters, our strategy recommendation for Aba is to focus on the Nigerian and West African markets in the short term. This will allow Aba to exploit its advantage in a market where it already has a foothold, allow it to compete on speed, transport costs and knowledge of local tastes, and allow it to compete in a market with weak local producers. This should be accompanied by consistent investment in infrastructure and capacity building, and by implementation of progressive policies, that will improve quality of outputs and lower costs.

Our recommendations for actions, which would most effectively contribute to the development of the cluster are as follows:

Action	Expected Effect(s)	Timeline	Potential Actors
Improve power supply in the area  <b>Growth Criteria Addressed:</b> Price Speed	<ul style="list-style-type: none"> <li>• Reduce the cost of production thereby allowing these producers to compete favourably on local and international markets</li> <li>• Increase the productivity of producers in the area by removing interruptions due to power cuts</li> <li>• Reduce air and noise pollution caused by generators</li> </ul>	<b>Short term</b> <ul style="list-style-type: none"> <li>• Improve reliability of power supply by working to deliver uninterrupted power supply during a specific time period.</li> <li>• Begin construction of power plants that will provide electricity to the Aba area</li> </ul> <b>Medium term</b> <ul style="list-style-type: none"> <li>• Increase the time frame between which uninterrupted</li> </ul>	<ul style="list-style-type: none"> <li>• Federal Ministry of Power, Works and Housing</li> <li>• National Electricity Regulatory Commission</li> <li>• National Bulk Electricity Trading Plc.</li> <li>• Transmission Company of Nigeria</li> <li>• Enugu Distribution Company</li> <li>• Rural Electrification</li> </ul>

		<p>power supply is guaranteed.</p> <ul style="list-style-type: none"> <li>• Bring power plants on line to increase the available power supply for the area</li> </ul> <p><b>Long term</b></p> <ul style="list-style-type: none"> <li>• Guarantee uninterrupted power supply for the Aba area.</li> </ul>	<p>Agency</p> <ul style="list-style-type: none"> <li>• Independent Power Producers e.g. Geometric Power</li> </ul>
<p>Improve transportation infrastructure</p> <p><b>Growth Criteria Addressed:</b> Price Speed</p>	<ul style="list-style-type: none"> <li>• Reduce time of transporting goods to and from the clusters</li> <li>• Reduce transportation costs for producers in the cluster thereby reducing the costs of raw materials and the cost of distributing goods to customers</li> <li>• Make the area more accessible to customers and investors</li> </ul>	<p><b>Short term</b></p> <ul style="list-style-type: none"> <li>• Renovate roads within and leading to the clusters</li> <li>• Begin construction of new intra-city roads and other such transport linkages that will improve the ease of transporting goods where necessary</li> </ul> <p><b>Medium term</b></p> <ul style="list-style-type: none"> <li>• Begin construction of railways linking the clusters to ports, airports and major cities in Nigeria.</li> </ul> <p><b>Long term</b></p> <ul style="list-style-type: none"> <li>• Regularly maintain and upgrade these transport links to prevent decay.</li> </ul>	<ul style="list-style-type: none"> <li>• Federal Ministry of Power, Works and Housing</li> <li>• Federal Ministry of Transportation</li> <li>• Abia State Government</li> <li>• Aba North and South Local Government Areas</li> <li>• Private sector organizations involved in infrastructure financing (e.g. Africa Finance Corporation)</li> <li>• Multilateral organizations</li> </ul>
<p>Encourage formalization of firms in the clusters</p>	<ul style="list-style-type: none"> <li>• Increase the ease of identifying, counting and categorizing the number of firms in the clusters</li> <li>• Increase the ease of</li> </ul>	<p><b>Short term</b></p> <ul style="list-style-type: none"> <li>• Begin an awareness campaign to sensitize firms in the area to the process and benefits of registering their</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate Affairs Commission</li> <li>• The Presidential Enabling Business Environment Council</li> </ul>

	<p>taxing these firms transparently</p> <ul style="list-style-type: none"> <li>• Increase the ease of borrowing for these firms</li> </ul>	<p>firm formally</p> <ul style="list-style-type: none"> <li>• Partner with the respective producer unions to encourage registration</li> <li>• Simplify the process of registration</li> </ul>	<ul style="list-style-type: none"> <li>• Federal Inland Revenue Service</li> <li>• Abia State Internal Revenue Service</li> <li>• Producer unions</li> <li>• Non-governmental Agencies and development agencies</li> </ul>
<p>Encourage lending to firms in the sector</p> <p><b>Growth Criteria Addressed:</b> Capacity Quality Speed</p>	<ul style="list-style-type: none"> <li>• Allow firms to modernize and expand by obtaining loans</li> <li>• Increase productivity of firms by providing finance for purchase of machines, better factories etc.</li> </ul>	<p><b>Short term</b></p> <ul style="list-style-type: none"> <li>• Provide direct loans from government organizations to firms in the cluster</li> <li>• Create a vehicle to de-risk commercial bank lending to the sector, similar to the role NIRSAL plays in the agricultural sector</li> <li>• Create unique financial products that reduce the risk of lending to these firms</li> </ul>	<ul style="list-style-type: none"> <li>• Central Bank of Nigeria</li> <li>• Bank of Industry</li> <li>• Development Bank of Nigeria</li> <li>• Small and Medium Enterprises Development Agency of Nigeria.</li> <li>• Commercial banks</li> <li>• Micro-finance banks</li> </ul>
<p>Create uniform standards for clothing and shoe sizes across the clusters</p> <p><b>Growth Criteria Addressed:</b> Capacity Quality</p>	<ul style="list-style-type: none"> <li>• Facilitate sales particularly for bulk buyers who want to place orders with multiple producers</li> <li>• Simplify online and other remote sales</li> </ul>	<p><b>Short term</b></p> <ul style="list-style-type: none"> <li>• Work with unions to develop and encourage the adoption of standards</li> </ul>	<ul style="list-style-type: none"> <li>• Standards Organization of Nigeria</li> <li>• Producer unions</li> </ul>
<p>Advertise the cluster to investors</p> <p><b>Growth Criteria Addressed:</b> Capacity Quality</p>	<ul style="list-style-type: none"> <li>• Attract investors to the cluster</li> <li>• Provide producers in the cluster with capital to expand their businesses and consequently, the economy of Aba</li> </ul>	<p><b>Short term</b></p> <ul style="list-style-type: none"> <li>• Advertise the cluster to interested investors</li> <li>• Develop policies to increase the ease of investing and doing business in the Aba</li> </ul>	<ul style="list-style-type: none"> <li>• Federal Ministry of Industry, Trade and Investment</li> <li>• Nigerian Investment Promotion Commission</li> </ul>

	<ul style="list-style-type: none"> <li>• Speed up the development of the cluster with the help of foreign capital and expertise</li> </ul>	<p>clusters</p> <p><b>Medium term</b></p> <ul style="list-style-type: none"> <li>• Develop critical infrastructure that makes Aba an attractive investment destination</li> </ul> <p><b>Long term</b></p> <ul style="list-style-type: none"> <li>• Build on the success of attracting investment into the area to attract more investors</li> </ul>	<ul style="list-style-type: none"> <li>• The Presidential Enabling Business Environment Council</li> <li>• Abia State Government</li> <li>• Aba North and South Local Government Areas</li> </ul>
<p>Encourage and facilitate the development and spread of knowledge by creating public sector education and research organizations</p> <p><b>Growth Criteria Addressed:</b> Quality Speed Capacity</p>	<ul style="list-style-type: none"> <li>• Increase the supply of skilled workers in the cluster</li> <li>• Increase the speed of knowledge sharing within the clusters</li> <li>• Increase the rate of innovation in the cluster</li> <li>• Increase productivity across the clusters by developing and spreading improved production techniques</li> </ul>	<p><b>Short term</b></p> <ul style="list-style-type: none"> <li>• Increase funding to education organizations in the Aba area involved in teaching relevant skills</li> <li>• Increase funding for research organizations</li> </ul> <p><b>Medium term</b></p> <ul style="list-style-type: none"> <li>• Establish dedicated institutions or departments within existing institutions committed to teaching and research on topics relevant to the economic activities within the cluster</li> </ul>	<ul style="list-style-type: none"> <li>• Federal Ministry of Education</li> <li>• Abia State Polytechnic</li> <li>• Nigerian Academy of Science</li> <li>• Non-governmental Organizations</li> </ul>
<p>Provide incentives for producers of raw materials to relocate closer to the cluster</p> <p><b>Growth Criteria Addressed:</b> Price Quality</p>	<ul style="list-style-type: none"> <li>• Reduce costs of raw materials</li> <li>• Increase supplier quality of service to local producers</li> <li>• Reduce exposure of producers to</li> </ul>	<p><b>Short term</b></p> <ul style="list-style-type: none"> <li>• Improve business environment in the Aba area</li> <li>• Identify incentives that can entice producers of raw materials to locate</li> </ul>	<ul style="list-style-type: none"> <li>• Federal Ministry of Industry, Trade and Investment</li> <li>• Abia State Government</li> <li>• Aba North and South Local</li> </ul>

	<p>exchange rate fluctuations</p> <ul style="list-style-type: none"> <li>• Provide employment in related industries for residents of the Aba area</li> </ul>	<p>their businesses in Aba and develop policies around these incentives</p>	<p>Government Areas</p> <ul style="list-style-type: none"> <li>• Producer unions</li> <li>• Leather and textile producers</li> </ul>
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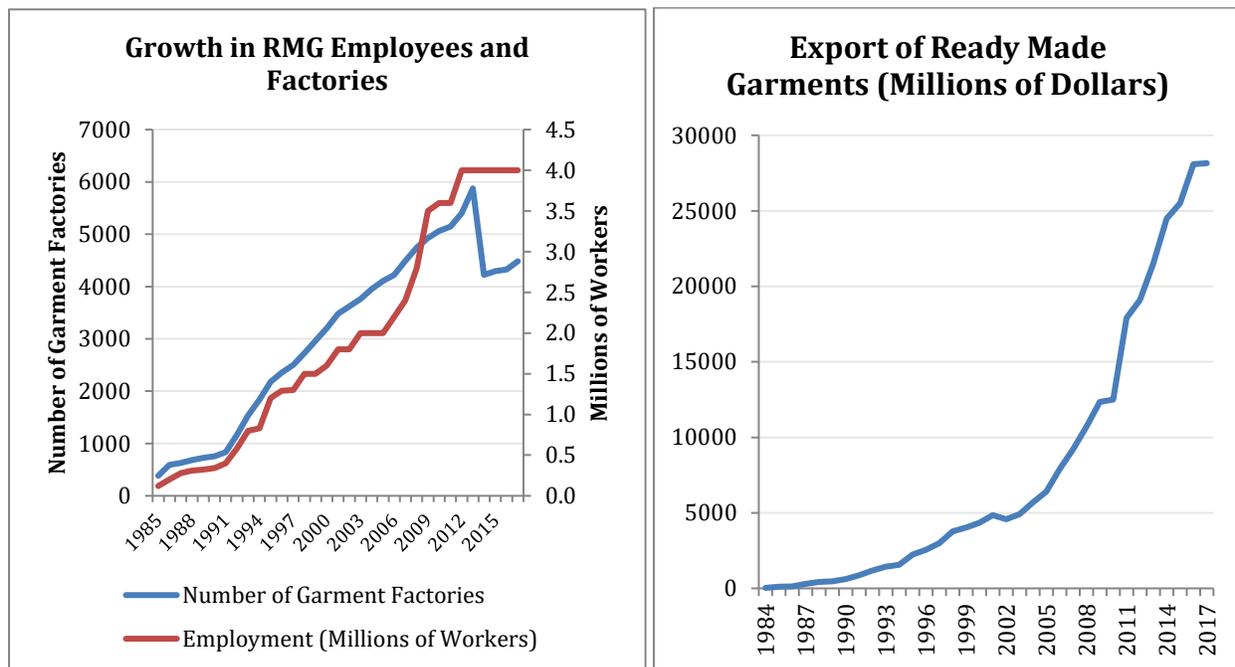
For these recommendations to be implemented as quickly as possible, the Federal and State governments should collaborate to establish a Special Economic Zone around the Aba area. This would reduce the time and cost for exporting from the area, encourage investment into the area, allow for quicker policy-making, and allow for concentrated investment in infrastructure in the area.

The benefit of a Special Economic Zone, which operates outside Nigeria’s normal laws is illustrated by the issue of the electricity supply in the Aba area. The Rural Electrification Agency (REA) in collaboration with the State Government has recently started a pilot program, which provides electricity to the Ariaria Market using a gas-powered plant. However, Governor Okezie Ikpeazu revealed at the PEBEC South East Regional Stakeholder Forum that Geometric Power, which obtained a license from the Federal Government to supply power to the area is fighting against the project in court. A Special Economic Zone will allow the Aba area to bypass the messy aspects of Nigerian politics and develop faster.

## 8 Lessons from Bangladesh

### 8.1 Introduction

In 1972, immediately after it gained its independence from Pakistan, Bangladesh's GDP per capita was \$93. In 2016, this had grown to \$1359<sup>9</sup>; a growth rate of 6% over a 44 year period. This consistently high GDP per capita growth rate has been underpinned by a rapidly growing Ready Made Garments (RMG) sector. The growth of the RMG sector in Bangladesh has been nothing short of remarkable –Bangladesh's garments exports grew from \$32 million in 1983 to \$24 billion in 2014 (see Figures 20a & 20b). The garments sector contributes 81% of Bangladesh's exports and 14% of its GDP, and employs approximately 4 million people, mostly women. This has significantly contributed to poverty reduction and income growth in Bangladesh.



**Figure 20a: Number of factories and workers in Bangladesh's garments industry**  
Source: Bangladesh Garment Manufacturers and Exporters Association (BGMEA)

**Figure 20b: Growth in exports of RMG's from Bangladesh**  
Source: Export Promotion Bureau of Bangladesh

### 8.2 Reasons for the Growth of Bangladesh's RMG Sector

How did Bangladesh's RMG exports go from a statistical rounding error to the second largest in the world in under 40 years? We will analyze each of the factors that have contributed to the growth of the Bangladeshi garments sector to discover what lessons they hold for the garments and leather sectors in Aba, and in Nigeria in general. This analysis will highlight which lessons are transferrable and which ones are specific to Bangladesh.

<sup>9</sup> Source: World Bank

There are four main reasons for this extraordinary achievement (Yamagata & Yunus, 2012):

- Cheap labour
- Foreign investment
- Favourable trade agreements
- Government support and promotion

***Cheap Labour:*** The hourly cost of labour in Bangladesh is 25 cents, compared to 34 cents in Indonesia and Pakistan, 48 cents in China and 57 cents in India (Blumer, 2015). The low cost of labour in Bangladesh compared to competing countries makes Bangladesh an extremely attractive production centre given that textile and garments production are labour intensive activities.

***Foreign Investment:*** Beginning in the late 1970s, foreign garments producers from established garment exporting countries, particularly South Korea, set up partnerships with Bangladeshi companies which included capital investments and free worker training. The most significant of these joint ventures was Dosh Garments Ltd.'s joint venture with Daewoo. Eventually, many of the workers who had been trained with Korean companies left their employers and started their own factories using the skills and expertise they had obtained from their foreign partners. Although this initial foreign investment was pivotal to the development of the nascent sector, Bangladeshi investors have become the dominant players in the sector owning more than 95% of garment factories (Textile Intelligence, 2003).

***Favourable Trade Agreements:*** One of the major contributing factors to the growth of the Bangladeshi garments industry was the Multi Fibre Arrangement (MFA). The MFA was introduced in 1974 to protect the garments industries of developed countries from competition from the developing world. The MFA set quotas on garments exports from the emerging industrial nations in Asia such as China and South Korea. However, since its garments industry was almost non-existent at that point, Bangladesh was exempted from quotas. As a result, foreign investors from countries with quotas such as South Korea invested in the Bangladeshi garments sector (as we discussed earlier) to avoid quotas.

There were doubts about the Bangladeshi garments sector's ability to continue growing after the MFA was ended in 2005 but Bangladesh has continued to remain competitive even in the absence of quotas due to its low wages.

***Government Support and Promotion:*** Bangladesh's government has supported its garments industry through policies that increased the ease of operating a business and helped attract foreign investment. Some examples of such policies were the removal of a ceiling on foreign investment and the issuance of licenses to entrepreneurs for duty-free importation of machinery (Yamagata & Yunus, 2012).

### 8.3 The Dark Side

Although Bangladesh's garments sector has provided increased income, jobs, and foreign exchange earnings for Bangladesh, there are some negatives which need to be discussed to avoid the emergence of the same problems in Nigeria's garments sector.

**Factory Safety Issues:** The Bangladeshi garments industry is notorious for its poor factory safety although this has somewhat improved following some high-profile factory disasters. Some of the most deadly incidents were a 2012 factory fire which killed 117 people and injured 200 and the 2013 collapse of the Rana Plaza building collapse which had a death toll of 1134 with over 2000 more injured. As a result of public outcries over these incidents, there have been efforts to regulate and improve safety in factories in Bangladesh but factory safety in Bangladesh is still below international standards.

**Workers' Health Issues:** Working conditions in Bangladeshi garments factories expose workers to various health problems caused by exposure to chemicals and from working for hours in a sitting position with a bent neck.

### 8.4 Lessons for Nigeria

Although the rapid growth of Bangladesh's garments industry was helped by some factors, which are unique to Bangladesh, the basic principles are replicable with concerted and targeted effort. Some lessons Nigeria can learn from Bangladesh in its attempts to develop its garments and leather sectors are:

**Capitalise on low wage environment:** The current minimum wage in Nigeria is N18,000; assuming an exchange rate of N306/\$, an 8 hour working-day and 20 working days a month, the hourly wage is approximately 37 cents. This is comparable to hourly wages in Bangladesh, Indonesia and Pakistan, and lower than wages in India and China. In reality, the equivalent hourly wage is even lower given that most producers we spoke to in Aba tend to work up to 10 hours per day and work on Saturdays and that the exchange rate on the parallel currency market is higher than the official rate. This means that in terms of labour costs at least, Nigeria is competitive with the major garment production centres. This advantage should be capitalized on and advertised to potential investors. There should also be programs to develop the skills of garments workers to increase their productivity to international levels.

**Create enabling environment to encourage business growth and attract foreign investment:** Policies should be developed to increase the ease of doing business in Nigeria, and actively target foreign participation in both clusters. This will encourage both foreign and domestic investment and help existing businesses grow. Some policies reform areas, which could attract investment are land reform, simplification of the process to establish a business, and increasing the ease of profit repatriation. Additionally, there should be efforts to improve the public services and infrastructure which support business growth.

**Capitalize on existing trade treaties and seek to sign new ones:** The African Growth and Opportunity Act (AGOA) provides duty free market access to the United States for qualifying Sub-Saharan African countries. Textiles and apparel are eligible for exportation to the United States under this Act. This gives Nigeria preferential access to the largest apparel importer in the world. Nigeria should exploit this agreement to increase its apparel exports in a similar manner to how Bangladesh used the MFA. Additionally, Nigeria should seek to sign other such deals with other large markets such as the European Union.

**Develop sensible regulations to guarantee worker safety:** In its efforts to grow its garments sector, it is imperative that Nigeria avoids the mistakes that Bangladesh has made. Nigeria must create governing safety regulations now, rather than waiting for tragic incidents to occur before developing and implementing safety regulations for the garment sector. However, it is important that these regulations are not heavy-handed and do not stifle the growth of the sector. These regulations should also be implemented vigilantly and fairly to avoid unscrupulous factories flouting them. It is important that regulations are forward-looking and proactive as foreign consumers are becoming increasingly wary of worker conditions in the countries they buy their clothes from. If a high-profile workplace disaster occurs in Nigeria's garments sector, particularly in the early stages of development, it could throttle the growth of the sector.

## 9 References

- Blumer, H. (2015). *Internal Communication in Bangladeshi Ready-Made Garment Factories: Illustration of the Internal Communication System and Its Connection to Labour Unrest*. Springer
- Dicken, P. (2007). *Global Shift: Mapping the Changing Contours of the World Economy (5<sup>th</sup> Edition)*. Sage
- Gordon, I.R. and McCann, P. (2000). Industrial Clusters: Complexes, Agglomeration and/or Social Networks?. *Urban Studies*, 37(3), 513-532
- Hincapie, D. and Wolman, H. (2014). Clusters and Cluster-Based Development: A Literature Review and Policy Discussion. *Economic Development Quarterly*, 29(2), 135-149
- McKinsey & Company. (2011). *Bangladesh's Ready-made Garments Landscape: The Challenge of Growth*. McKinsey & Company
- Porter, M. (1998). *Competitive Advantage: Creating and sustaining superior performance*. New York: Free Press
- Textiles Intelligence. (2003). Garment Industries in Bangladesh and Mexico face an Uncertain Future: Press Release. Available from: <http://www.textilesintelligence.com/til/press.cfm?prid=317> [Accessed 22/12/2017]
- Yamagata, T. and Yunus, M. (2012). The Garment Industry in Bangladesh. Fukunishi ed., *Dynamics of the Garment Industry in Low-Income Countries: Experience of Asia and Africa (Interim Report)*. Chousakenkyu Houkokusho, IDE-JETRO.