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AN ASSESSMENT OF LOCAL FACTORS INFLUENCING FIRM PERFORMANCE AND FACILITATING INTEGRATION INTO GLOBAL VALUE CHAINS: A CASE STUDY OF TEXTILE AND APPAREL FIRMS IN GHANA

ACKNOWLEDGEMENTS

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ABSTRACT

The textile industry has been a major contributor to industrialisation in many countries. Therefore the performance of firms in this subsector may be greatly linked to the growth of the subsector and subsequently act as a driver of economic growth, among other factors. Also, firm performance affects the sector's ability to participate in the global value chain (GVC). It is said that the ability to participate and consequently to gain from participating in the textile and apparel GVC are possible only through creating a local environment that attracts global buyers. Although the literature notes the importance of global buyers in driving the GVC, it places prominence on a host of local economic factors that constrain the performance of firms and the growth of the subsector.

This study therefore analyses some local factors in Ghana that may contribute to the performance and capacity of textile and apparel firms to integrate into the GVC through a mixed methods approach of interviews, questionnaires and quantitative data.

From the analyses in the study it is revealed that, for the Ghanaian textile subsector to contribute to economic development and gain from participating in the GVC, certain local factors should be improved. These factors include the facilitation of effective coordination between the government, institutions and all stakeholders in the industry, and improvements in infrastructure, financing, standards and certification, and in policy and other internal firm factors. The study also reveals that countries like Ethiopia and Mauritius have found ways of scaling these constraints through several strategies leading to the growth of their textile and garments subsector. Therefore, improving these factors may improve the competitiveness of firms in order to participate in, and benefit from, GVCs.

1 INTRODUCTION

1.1 Background to the Research

Most developing countries in the world rely on the textile and apparel (T&A) industry as a significant contributor to their economy. Although the percentage contribution to GDP by the T&A industry varies from country to country, it accounts for 5% in Sri Lanka, 12% in Cambodia and 15% in Pakistan. It stands to be a major source of foreign exchange through exports from several developing countries, accounting for about 50% of the total manufacturing exports in these countries, 83.5% in Bangladesh and 80% in Cambodia. (Keane & Velde, 2008)

The sector stood out as a leader in industrialisation and trade in Ghana during the early 1990s, providing a substantial amount of manufacturing employment (Quartey, 2006). The estimation of the share of total employment that the T&A industry presents to developing countries ranges from 35% in some low-income countries, 75% for Bangladesh and 90% for some of the least developed countries, like Lesotho and Cambodia (Keane & Velde, 2008).

The sector provides the platform to move into more skill-intensive sectors through learning by exporting, owing to the fact that the T&A industry provides entry-level jobs for developing countries that have high rates of unskilled labour and it is characterised by simple forms of technology that are easily adaptable to unskilled labour at a low start-up investment cost (Dickerson, 1999). In addition, (Adhikari & Yamamoto, The textile and clothing industry: Adjusting to the post-quota world, 2007) Adhikari & Yamamoto (2007) assert that expansion and growth in the T&A subsector increases the capital accumulation to finance high-level technologies that are imported for highly technologically intensive sectors in the economy. For example, the T&A subsector had the highest share in total manufactured exports and contributed to the manufacturing value added (MVA) in Mauritius in the 1980s to 1990s, which boosted the Mauritian economy (Dickerson, 1999).

These low barriers to entry pertaining to developing countries, and the unique characteristics of the T&A industry listed above, have been an attractive feature for global buyers in the T&A

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global production networks. They also explain the shift in the attention of these global buyers to developing countries, considering their abundance in cheap labour, thereby creating a global value chain (GVC) of textile and apparel manufacturers with participants in countries such as Bangladesh. This global value chain has led to the increase in international production and distribution networks that span across national borders and present both economic development opportunities and challenges to developing countries (Gereffi, 1999; Gibbon & Ponte, 2008; Sturgeon, 2001).

These networks present countries with the opportunity to integrate into the global market, since firms do not have to possess all capacity to produce goods from the start to the end due to the higher trade in intermediaries than final goods that is present in the GVC. Aside from this, economies of scale can be achieved since firms build capabilities and gain new technological capacities as they improve their product content to suit the global demand. Hence the GVC presents to developing countries the opportunity to engage in the textile and apparel industry to achieve industrialisation.

In the GVC trade literature, global buyers are specified as the key drivers of the dispersion and setup of the textile and apparel manufacturing industries in various new geographical sites. This means that entry and benefits from integrating into the chain thereafter are determined by the decisions of global buyers regarding production. These decisions have a long-run effect on a T&A firm's upgrading trajectory into new technologies and skills in higher value-added activities. It is noted in the literature that countries that have benefited enormously in GVC are those that have engaged in and improved their relationships with these global buyers (Gereffi, 1994).

However, there are varying results from developing countries that have participated in the value chains with regard to the impact T&A has had on their GDP and domestic manufacturing valued-added (MVA) activities (Ming, Bo, & Shang-jin, 2015)).

Although, in theory, GVCs present opportunities for developing countries, analyst of the GVC literature argue that the insertion into the value chain should not be considered an automatic process that leads to upgrading or an automatic appropriation of global economic returns upon

integration. Although integration may present opportunities, a country's ability to identify and move into activities that provide high returns to investment along the value chain is critical for its economic growth, considering its country-specific situations (Kaplinsky, 2000; Morrison *et al*., 2008).

Other literature confirms the assertion by Morrison *et al*. (2008) by indicating that local constraints that weaken the development of local linkages and suppliers' capabilities prevent them from upgrading. Although this literature acknowledges the importance of global buyers, it places prominence on the local constraints. The constraining factors may include the cost of input, poor infrastructure, ineffective and inefficient institutions, etc. that are embedded in a country's development structure in relation to an industry (Bair & Gereffi, 2003). These factors basically lead to a poor investment climate that does not favour investors. An illustration is made of the success of the East Asian T&A industry in upgrading from low-value activities to higher value addition through the strengthening of their local linkages and building supplier capabilities (Humphrey & Schmitz, 2000).

In contrast, the textile/apparel firms in Ghana have seen various challenges regarding the investment climate that may account for their non-performance in exports and growth. A study done by Quartey (2006) shows how local constraints have contributed to the continuous decline in the Ghanaian textile and apparel subsector. Firms in his study, which used a survey, indicated that transit taxes, extortion at the borders, poor infrastructure and lack of key raw inputs, among others, were key constraining factors that impeded firms in the sector from exporting and, most importantly, integrating into the GVC.

Apart from these constraints, an OECD study on the participation of developing countries in the GVC indicates that many African countries face critical problems with respect to scale, productivity and trade policy direction, which are imperative for successfully integrating into the GVC (Kowalski *et al*, 2015). As part of its trade policy, the country has signed favourable trade agreements, such as the African Growth and Opportunity Act (AGOA), the ECOWAS Trade Liberalization Scheme (ETLS), and the Economic Partnership Agreement (EPA) between the European Union (EU) and African, Caribbean and Pacific (ACP) countries. These allow Ghana

duty-free access for export into the ECOWAS, EU and US markets, yet the benefits of these decisions have not been harnessed.

Comparatively, Ghana shared the same level of development as other countries such as Mauritius and Ethiopia with regard to their textile and apparel industries in the late 1990s. These countries are also developing countries and hence may share common challenges with regard to integrating into GVCs.

The Mauritian and Ethiopian textile and apparel industries are now considered a catalyst for their industrial development revolution (Gebreeyesus, 2013 2013; Joomun, 2006; Staritz *et al*., 2016), while Ghana has experienced the opposite. Currently, Ethiopia and Mauritius have increased their base of textile and apparel industries, which are well entrenched in the GVCs. These countries' apparel industries have come a long way from being producers of basic products at the lowest profit levels of the value chain to a vertically integrated supplier of design-led garments (Staritz *et al*., 2016).

The rapid rise and increase in the exports of the textile/apparel products of Ethiopia and Mauritius in GVCs is attributed to a number of factors, which include preferential trade agreements for market access, changes in global buyers' sourcing strategy, the local investment climate, which includes institutional frameworks, and lastly a proactive industrial policy by the Ethiopian and Mauritian governments for the sector (Staritz *et al*., 2016).

1.2   Problem Statement

Firm participation in the textile and apparel value chains in the past decade through various trade agreements, such as AGOA and ETLS, under an export-led industrialisation policy has not yielded the desired benefits. This is because only a few firms have taken advantage of this opportunity. Also, the employment levels and the number of exporting T&A subsector firms continue to decline. Thus the government's objective under this strategy of addressing the socio-economic goals of attaining greater industrialisation through the global textile and apparel value chains has not been achieved.

The Ghanaian textile and garment industry has rather reduced in size, as some firms have closed operations, contrary to the expected outcome of using the industry as a stepping stone into industrialisation, as seen in other countries. The performance of the Ghanaian firms has been declining and has not responded well to the dynamics of the global economy. However, Staritz *et al*. (2016) show that the textile/apparel firms in Mauritius and Ethiopia have been instrumental in the countries' industrial growth over the past ten years. This shows a mixed result in relation to developing countries that have inserted themselves into the value chains through the T&A industry.

It is therefore important to assess the local factors contributing to the low performance of the subsector, examine its evolution and current status, and identify the challenges that prevent it from taking advantage of global value chains. This would provide a basis for policy development that promotes the development of the subsector and the manufacturing sector in general. While other studies have assessed the challenges of the T&A subsector in Ghana, they have done so without taking cognisance of the influence of the global value chain in spurring growth in the T&A subsector.

1.3   Purpose of Study

The purpose of this study is to identify and analyse factors in the Ghanaian textile and apparel sector, such as the subsector's current characteristics, the existing policies and strategies that contribute to firms' non-performance, and their inability to take advantage of the opportunities provided by the global value chain. More specifically, it is to:

- Identify and examine challenges faced by the Ghanaian textile and apparel firms.
- Assess how these challenges affect the performance of the Ghanaian textile/apparel firms and influence their ability to integrate into the GVC.
- Identify and review existing strategies instituted by the government and relevant actors to address the challenges to aid the sector succeed in participating in GVCs.
- Draw lessons from other countries that could guide the development of strategies to improve the textile and apparel subsector.

1.4   Research Questions

The overall question that guides this study is: What are the local factors that affect the performance of the Ghanaian textile/apparel firms and their possible participation in GVC? The following specific questions guide the study.

1. What are the current strategies adopted by the firms and government to address challenges facing firms' integration into GVC?

2. What are the existing gaps between the strategies and investment climate of very successful developing countries and that of the Ghanaian textile/apparel firms?

3. What policy recommendations will be useful to improve the textile/apparel firms' performance in Ghana and their integration into the GVC?

1.5   Importance of the Study

This study adds to the body of knowledge about the current status of Ghanaian textile/apparel firms. It examines the status and challenges that affect the performance of firms and their constrains integrating into GVCs. It reviews the relevant literature on the GVC, which provides insightful information regarding opportunities, challenges and strategies for improving the performance of Ghanaian textile/apparel firms and their ability to integrate into the GVC. Using qualitative firm-level data collected through interviews, along with the existing literature, this provides a clearer picture of the potential factors that contribute to the decline in the textile/apparel firms.

The study may also provide policymakers with insight into the factors that contribute to the differing outcomes of Ghana and developing countries participating in GVCs. Hence the information may serve as a guide to prod policymakers to make the best choice of policy in improving the performance of the T&A firms and their ability to fit into the GVCs.

1.6 Limitations of the Study

Due to the small sample size, there is a limit to which the findings of the study can be generalised. Data collected through the research survey represent only the opinion of the chief executive officers (CEOs) or managing directors of the firms. Other opinions within a firm could have increased the validity of the thesis findings. Time and financial constraints further limited probing where much clarifications and follow-ups were needed for additional information. However, these challenges were managed by using diverse data sources and triangulating them to improve the outcome of the study.

1.7 Structure of the Study

Beside the introduction, the rest of the study is organised into five chapters. Chapter 2 presents the literature review. This entails the literature on GVC theory, factors influencing firm performance and integration into GVCs, as well as characteristics of the textile and apparel value chains and industrial policy, firm performance and GVCs.

Chapter 3 focuses on the overview of the Ghanaian textile/apparel industry in terms of its current status and performance in trade, using import and export data, the sector's opportunities, firms' strategies and the various interventions that previously have been tailored to the sector.

The methodology of the study is discussed in Chapter 4. It discusses the sample size and sampling methods, the data collection method – interviews and questionnaires, and how the trustworthiness and the validity of the study were ensured through triangulation. Chapter 5 presents the survey data and discusses the major findings of the study by comparing them to the findings of other relevant studies. Finally, Chapter 6 concludes the study with a summary of the findings and suggestions for performance improvement.

2 LITERATURE REVIEW

2.1 Global Value Chain (GVC) Theory and Analyses

The global value chain (GVC) development approach is mostly attributed to Gereffi & Korzeniewicz, (1994) who basically expands the value chain concept to include the dynamics of global buyers. The global buyers, also known as lead firms, are big transnational corporations, branded retailers and marketers who have their operations in developed countries but outsource labour-intensive operations to developing countries. They select participants and determine how products and services are handled and flow within a value chain. They also set the parameters and standards for production to which firms in the developing countries must comply, and monitor the production process to provide support for continuous improvement. According to Lall (1980), global buyers provide assistance to supplier firms in terms of finance, raw material procurement to ensure quality and availability of supplies, managerial training, and allocating inventory and product development costs.

The theory also highlights that the increase in the dispersion and formation of value chains around the globe in wider geographical nodes is due to the global buyers. It notes that global buyers are the main drivers of investment in developing countries and they also provide a channel to established markets for firms located in developing countries. The organisation of the current GVCs presents firms with the opportunity to insert into and upgrade to the most profitable activities in the chains. This is due to the fact that they do not have the full complement of the production sections of the textile and garment value chain. More succinctly, trade in intermediates is higher than trade in final goods (Gereffi, 1999). In this regard, some studies have shown that global buyers in a number of host countries increase domestic capital for export, help to transfer technology and diversify products for export. In addition, they also facilitate access to new and larger international markets provide capacity building activities for local labour force and improve management and technical skills (Frimpong & Fosu, 2006; Zhang, 2005).

On the other hand, however, it is also sometimes argued that global buyers decrease or replace savings and investment, transfer technologies that are of a low level or inappropriate for the host

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country's industrialisation, and inhibit the expansion of local firms that might grow to become competitive exporters. In addition, global buyers may not help to develop the host countries' dynamic comparative advantage by focusing mainly on lower labour costs and raw materials (UNCTAD, 2001-2002).

In recent times, value chains, termed global "commodity chains", have become a distinctive feature of the global economy (Gibbon & Ponte, 2008). This is due to the shift of VC production from developed to developing countries. In the literature, this shift is noted to be induced by economic factors such as the availability of and cheap raw inputs, cheap labour, lower transport costs, advancement/diffusion in information and technology, and lowered trade and investment barriers (Gereffi, 1994). Key to note is that global buyers consider this host of economic factors in addition to the political and macro-economic stability of the country and the quality of its legal and regulatory institutions, which are locally embedded, in their decision to source within a country. As noted in the literature, these factors also contribute to the export performance of firms in global trade.

GVC analyses focus on the characteristics of the inter-firm linkages in this regard, between the local firms in the developing countries and the lead firms. They take into account the power that regulates and synchronises activities, which includes how resources are disseminated and move across the value chain between primarily buyers and local firm suppliers. Mostly, this is referred to as governance in the value chain theory. Governance in the GVC literature comes in two structures (Gerrefi *et al*., 2005). These are *producer-driven chains*, which are governed by manufacturers who oversee the backward integration of the value chain, with a large network of component suppliers, and forwards, into wholesale and retail. These value chains are mostly capital, highly-skilled and technology-intensive industries, such as computers and telecommunication, with profits generated by economies of scale and R&D. The other are the *buyer-driven chains*, which comprises trade-led industrialisation, governed by large retailers, brand-name merchandisers and trading firms who outsource production networks in a decentralised manner, typically located in low-cost developing countries. Profits in this value

chain are accrued from design, marketing and distribution activities that meet the demand of dynamic consumer markets (Gereffi, 1994; Humphrey & Schmitz, 2002b).

This GVC analysis also focuses on the boundary-crossing activities, and takes into account the institutional environment where local enterprises interact in the GVC. The institutional framework recognises how local, national and international economic conditions and policies determine upgrading in each section of the value chain (Gereffi, 1999). It takes into account the local economic factors, social and institutional dynamics within which GVCs may be embedded. Humphrey and Schmitz (2002a) further assert that insertion into the GVC and performance outcome may depend significantly on these local economic conditions and the local firm's efforts to upgrade. Economic conditions may include the availability of major inputs such as; labour, infrastructure (rent and utilities) and access to finance and markets; the social context governing the availability of efficient labour; and finally functional institutions, tax laws, subsidies, and education and science, technology and innovation policy that can promote industry growth and development (Ernst, 2002; Hess & Yeung, 2006; Humphrey & Schmitz, 2002a).

2.2   Factors Influencing Firm Performance and Integration into the GVC

It is of the utmost importance to highlight the fact that, considering the complex nature of the global value chain and certain competing factors, including economic conditions as discussed above, firm performance is imperative for integration into and sustaining positions in the chain. This means that factors that influence firm performance needs to be given the needed attention by both governments and firms through policy and targeted investments. These factors centre on effective trade, investment and industrial policies, with a consequent effect on investment climate, infrastructure, finance, market access and governance, among others. As noted by Williamson (2002) and Coase, (1960), firms (global buyers) make decisions to source or vertically integrate or internalise some activities, which may be high-value activities within a firm or country, when their transaction cost is lower than obtaining such services from another supplier or from the market. Thus an investment climate within a country that will reduce the

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transaction cost comparable to other countries may determine how beneficial the activities, such as adopting a lower cost appropriate technology, are within a country to benefit the local firms and economic growth of the country at large. In sum, global buyers are prepared to invest in improving the capacities of firms in developing countries if the cost of their investment is compensated for by the profits they will gain thereafter.

Dollar *et al*. (2003) argue that liberalising trade needs to be supported by a complemented by a conducive investment climate if developing countries are to achieve the expected outcomes in terms of improved international trade, investment and higher economic growth. Investment climate in this regard refers to the institutional, policy and regulatory environment in which firms operate. The crust of this argument is that these factors contribute to a firm's performance, for example if the local government is highly bureaucratic and corrupt such its own provision infrastructure and the regulation of financial services is poor.

The outcome of a poor investment climate is that enterprises cannot have easy access to reliable services that ensure returns on possible investments and this makes investment uncertain. This makes it difficult to attract foreign direct investment (FDI), and it is also very challenging to get the country's own entrepreneurs to take investment decisions that responds appropriately to possible export opportunities (Dollar *et al*. 2003).

Nordås (2004) notes that the quality of infrastructure is an important determining factor of a firm's industrial performance. This study noted that the better the quality of infrastructure, the larger the share of total exports driven by vertical specialisation in the textile and apparel industries. Countries with higher occurrences of corruption would not be able to actively participate in vertical specialisation in the apparel sector, accentuating the significance of a smooth and judicious flow of goods and services (including payments and information exchange) (Nordås, 2004).

Using firm-level data analysis, Dollar *et al*. (2003) found that inefficiencies in customs activities, poor government services and frequent disruptive power outages served as source of informal trade barriers, making it difficult for firms in developing countries to connect to the international market. These bottlenecks thus facilitate domestic firms' focus on local production and not on the international market. Most importantly, the location will also be less appealing to multinationals that are looking for opportunities that offer production platforms as part of an integrated production across borders. Dollar *et al*. (2003) noted that firms lost about 6% of sales to unreliable energy; other losses included loss of production time during power outages, in certain instances lots in the course of production are ruined by the stoppage, and the time needed to restart, reset and recalibrate equipment.

Easterly and Levine (1997) noted that, due to the different transaction and investments cost associated with exporting activities, access to finance becomes a critical determining factor in the productivity levels of firms. Taking into consideration the fact that manufacturing spans across a period of time,, the adoption of efficient technologies necessitates investment today with profits in the future. Furthermore, continuous production requires inputs in advance whiles revenues accrue over time. Inadequacies in finance build barriers and impede new entrants to the market. These inadequacies reduce the competitive edge of incumbent firms, reducing their incentive to transform and expand productivity.

Developed financial markets would lessen firm dependence on its own revenue and angel investors. This results in an accelerated growth rate in productivity. Also, access to long term financing has a highly sustained impact; it gives firms the ability to take advantage of investment prospects in innovation and to sustain huge sunk costs, especially to penetrate export markets, impeding the development of an industrial sector (Chaffai *et al*, 2012).

Teal (1998) agrees and shows that Ghana undertook rapid trade liberalisation by signing various preferential agreements, removing the high levels of protection combined with real devaluation in exchange rates. This was done without other investment in public policies or the

preconditioning of the investment climate in Ghana. To this, he argues that these may account for the current decline and change in structure in the manufacturing sector, including the textile and apparel subsector. The decline is seen in firms' output, composition and productivity, and also in the fact that there is no underlying growth in technical efficiencies.

Quartey, (2006) shows in his study that textile and apparel firms in Ghana indicated reasons for closing down or cutting down on production as lack of inputs, corruption, disruption in power, poor infrastructure and inconsistent policies over time. This clearly indicates a poor investment climate for firms, which impedes performance. However, Scarpetta *et al*. (2002) argue that the performance of a firm is facilitated by a dynamic internal process that is linked with its aggregate productivity. He further intimates that these internal firm factors have a significantly greater impact on performance than local factors (outside of the firm's control).

2.3   GVC Characteristics of the Textile and Apparel Industry

Nordås (2004) notes that "textile and apparel (T&A) products are closely related, both in technology and in terms of trade policy. Textiles provide the major input to the apparel industry, creating a vertical linkage between the two". He further states that "international trade between the two sectors is regulated by the Agreement on Textiles and Clothing (ATC) at the multilateral level, while bilateral and regional trade agreements usually link the two sectors through rules of origin that complement preferential market access" (Nordås, 2004, pg. 1).

The T&A value chain is a buyer-driven chain, in which global buyers are from developed countries that are retailers, trading firms, brand marketers and manufacturers (Gereffi, 1999; (Gereffi & Fredrick, 2010; Goto *et al*., 2011). These buyers coordinate all the sections of value chain with respect to the final consumer and production enterprises, mostly in developing countries. (Schmitz & Knorriga, 2001). The increase in integration into the textile/apparel VC by the developing countries is attributed to the low barriers to entry. This means that it is characterised by less capital outlay to set up a factory or undertake operations, and hence most developing countries use it as an industrialising industry to achieve rapid growth.

The T&A VC is a labour-intensive process that requires less skill. Due to these factors, literature the highlights it as the most protected of all manufacturing industries before these protectionist barriers were removed. These barriers were in the regulatory regimes, such as multi-fibre arrangements (MFA), to protect the textile/apparel industry of the developed countries from imports from developing countries. It started as a precedent with the imposition of voluntary export restraints (VER) in 1957 on the exports of cotton textiles from Japan to appease the domestic textile industry in the United States. This was followed by a long history of quotas under the General Agreement on Tariffs and Trade (GATT) within the MFA, which was transformed into the Agreement on Textiles and Clothing (ATC) under the WTO agreements (Adhikari & Weeratunge, 2006; Adhikari & Yamamoto, 2007; Gereffi, 1999).

Consequently, the removal of these restrictions has caused transnational corporations in developed countries to cease undertaking the full range of production activities in their own countries. Rather, they have outsourced their labour-intensive production networks to developing countries due to low barriers to entry and the abundance of cheap labour (Gereffi, 1994; Humphrey & Schmitz, 2008).

Nordås (2004) argues that the textile and clothing industry supply chain is characterised by a number of disconnected activities. The supply chain starts from the sourcing of raw material, to the textile plant, apparel plant, distributing centres, retail stores and the final consumer. This means production is specialised, and hence any chain activity above is specifically located within countries or production sites where it can contribute the most to the value of the end product. Hence quality of service delivery, access to cost-effective and quality inputs and transport and operational costs are key variables when lead buyers make sourcing decisions (Nordås, 2004).

The textile apparel chains start from the lower end, which is *Cut Make Trim* (CMT). At this level, production is on a subcontracting basis where apparel factories are supplied with imported raw materials. The garments are made by cutting and sewing with fabric provided by the customer in accordance with the customer's specifications. In general, CMT production does not

involve designing of the apparel; rather, the prime concern is with its manufacture. With respect to CMT, a firm is only paid a processing fee, not a price for the garment, and uses fabric sourced by, and owned by, the buyer (Gereffi & Fredrick, 2010, pg. 175).

The next level of upgrading from CMT is the *Original Equipment Manufacturing "OEM/FOB/Package"*. This value chain level also focuses on the manufacturing process, but the supplier is able to source and finance its own fabric and trims. The fabrics and other inputs are sourced on the basis of the customer's specifications and design. The supplier further provides "all production services including finishing and packaging for delivery to the retail outlet". (Gereffi & Fredrick, 2010 pg. 174; Staritz, *et al.*, 2011)).

Original Design Manufacturing "ODM"/Full Package consist of more value-added processes than the first two steps. The production model "focuses on design rather than on branding or manufacturing. A full package garment supplier carries out all steps involved in the production of a finished garment" (Gereffi & Frederick, 2010 pg. 174). These include design, fabric purchasing, cutting, sewing, trimming, packaging and distribution. "Typically, a full package supplier will organise and coordinate the design of the product; the approval of samples; the selection, purchasing and production of materials; the completion of production; and, in some cases, the delivery of the finished product to the final customer" (Gereffi & Fredrick, 2010 pg. 174; Staritz *et al.*, 2011).

The highest level of the apparel value chain is the *Original Brand Manufacturing, "OBM"*. At this level, the production process focuses on branding rather than on design or manufacturing. This is where a "firm develops the sale of own-brand products. And, for that matter, for many firms in developing countries this may mark the beginning of brand development for products sold in the home or neighbouring countries". (Gereffi & Fredrick, 2010 pg. 175; Staritz *et al.*, 2011). Looking at the levels of upgrading stages entailed in T&A value chains, it is seen that a total change in technology, skill and product may be required as a firm upgrade from CMT to OBM. Against this back drop, "policymakers, managers, workers, social activists and other stakeholders in developing countries need a firm understanding of how the contemporary global

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economy works in order to maximise benefits if they hope to improve their position, or prevent an impending decline, in their value chain" (Gereffi & Frederick, 2010 pg. 175).

2.4   Industrial Policy, Firm Performance and GVCs

Industrial policy is the topic of considerable debate in the development economic literature, for various reasons – on the one hand, due to its importance to achieve economic development and, on the other, due to its diverging views on its concepts, contents and application. However, amidst these debates, the converging view still is that industrial policy is key to driving economic development (Wade, 2010). In its scope, it can be defined as narrow or targeted, which entails the deliberate government actions tailored to industries considered strategic for national development to generate productive and build technological capacities (Chang, 1993). On the other hand, it can be broader in scope, covering a range of policies that may cover the needs of a number of sectors to achieve economic development. These may include infrastructure development, fiscal incentives, trade policies, etc.

In the light of GVCs, scholars like Milberg *et al*. (2013) argue that, due to the trade in intermediate parts and components in production which are imported and exported out after further transformation as finished product, a broader approach of policy will be optimal, moving from the narrow or traditional scope approach. This stipulates a departure from the product market interventions, which close domestic markets to international competition through import substitution frameworks. This new trend of industrial policy deals with factor market policies, which cover the range of policies that may be required to build domestic technological capabilities and upgrade a specific industrial sector (Rodrik, 2008).

In this sense, policy will have to be dynamic in its interventions, since moving from the low end into higher chains in the GVC presents new sets of coordination externalities that result from learning. More often, the successful developing countries in the value chains adopt policies that have economy-wide implications, rather than being specific to sectors or more targeted to firms.

In the light of this, industrial policy for countries that have been inserted into the value chains becomes indispensable if, objectively, the country wants to achieve industrialisation through the

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firms. The typical profit-maximising characteristic of firms may not encourage them to opt for higher value-added activities that will ensure long-term benefits for a country. These activities may be capital intensive for local firms, and returns to investment may not be immediate. Therefore the local firm's motivation to engage in any activity depends on the short-term profits that will accrue to give them fast returns on their investments (Rodrik, 2004), Hence, the views of and objectives for domestic firms and government towards industrialisation may differ. Governments seek to exploit the benefits of value capture at the country level in order to encourage diversification in production, higher productivity, and the adoption of new technologies to improve the standard of living and job creation.

The same goes for the lead firms in the value chain; they also locate activities where returns are the highest They may engage firms from developing countries into chains that may not offer participatory or upgrading opportunities. Intuitively, industrial policy must consider the global buyers and their strategies in its design and implementation. This will help to create optimal policies, interventions and coordination among all actors linked to the chain to influence economic growth in the desired direction.

Thus stakeholder engagement to encourage strategic collaboration between government and the local firms (private sector) to determine where the most benefits are positioned for them in GVCs is critical (Rodrick, 2004). Industrial policy and institutions therefore may be tailored to create an enabling environment that enhances the competitiveness of local firms.

In comparison to what happened in Ghana, the success in Ethiopian industrial development was brought about by liberalising the Ethiopian economy, which showed that the government was dedicated to and facilitated conditions for the market to expand (Altenburg, 2007; Bigsten & Soderbom, 2009). There was a high investment in technological learning in order to build new competitive advantages. Infrastructure and the educational system were strengthened and tailored to give support to the building of technological capabilities. Also, supportive institutions for specific sectors, such as the textile and apparel sector, were set up to provide services to the industry. Overall, it was noted that the government implemented a comprehensive policy

package and activities that nurtured the firms along the whole value chain within the textile/ apparel sector through textile engineering institutes.

Staritz *et al*. (2016) and Joomun (2006) note that the success of the Mauritian textile andapparel sub-sector is dependent largely on a conducive business environment and preferential trade agreements signed. In addition, the government enacted economic policies that promoted the growth of the textile and apparel sector. These included investment in technology, infrastructure, fiscal measures, facilitating easy access to key inputs and the provision of institutional support. Also evident is the central role played by business associations in the development of the textile apparel industry in Mauritius.

3 OVERVIEW OF THE GHANAIAN TEXTILE AND APPAREL SECTOR

3.1 Introduction

This chapter discusses Ghana's textile and apparel sector by looking at its evolution from a once-vibrant sector to a weak one. The Ghanaian textile and apparel sector has evolved from a subsector dominated by state-owned enterprises to a subsector populated with private enterprises in concurrence with the evolution of government policies over the years. It also describes the structure of the sector and further elaborates on the import and export of textiles, with a focus on major markets. The evolution is divided into four main stages, which are the pre-structural adjustment, structural adjustment, post-structural adjustment and the Ghana poverty reduction strategy phases. The discussion is supported by an analysis of trade, which is based on the import and export of textiles and clothing.

3.2 Evolution

Figure 1 below shows the trend in manufacturing value added as a percentage of GDP, and textile and clothing value added as a percentage of manufacturing value added. As can clearly be seen, there is a general decrease in both variables from 1967 to 1983, with a sharp rise and fall between 1975 and 1981. As noted by Quartey (2006), there is little to no data on textile and clothing manufacturing output after 1982, which is demonstrated by the missing data in this figure. It is clear from Figure 1 below that both variables have similarities in trend and therefore, for the purposes of this study, manufacturing value added (MVA) as a percentage of GDP is used to describe the performance of the manufacturing sector, which includes the textile and apparel subsectors.
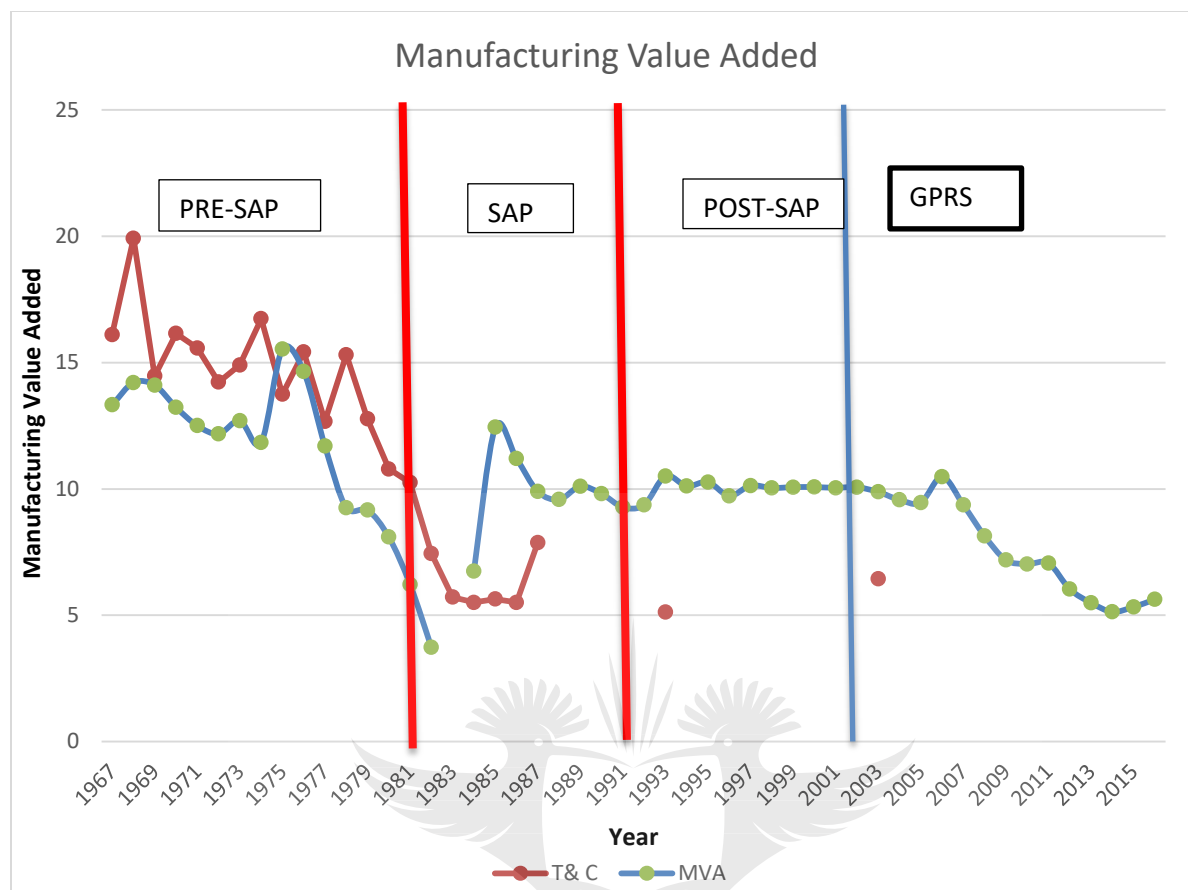
Figure 1: Comparison of Textile and Clothing Value Added and Manufacturing Value Added as a % of GDP

Source: (The World Bank , 2017)World Development Indicators (WDI).

3.2.1 Pre-structural adjustment phase

Post-independence, between 1960 and 1967, Ghana pursued an import substitution industrialisation (ISI) strategy, in which economic policies led to the establishment of large-scale, capital-intensive and light manufacturing industries that were predominantly managed by the state. The objective was to decrease the economic reliance on imports, which had resulted in balance-of-payments difficulties due to the rapidly rising import cost that accrued against the deficit in export earnings. Killick (2010) asserts that import substitution was prioritised based on

the belief that it would remove the distortions of the colonial system and provide a solution to the overdependence on primary products and reduce poverty.

Baah-Nuakoh (1997) indicates that a general strategy was implemented to promote industrialisation, with a special focus on manufacturing. The strategy was to reinforce domestic production, using both primary goods and imported inputs for exports in place of the previously imported consumer goods. This shifted imports from consumer to intermediate goods and capital goods. To this end, the government invested heavily in infrastructure and set up manufacturing plants, which were state owned enterprises (SOE). This industrial setup was highly and effectively protected through policies that favoured locally manufactured goods (Ackah *et al*., 2014). Policies comprised largely administrative control by the state rather than a market mechanism in determining incentives and resource allocation. They included trade quotas, which entailed foreign exchange controls and import licensing, high tariffs on some imported products, and domestic price controls on interest rates and minimum wages.

The textile and apparel sector was among the selected key sectors that were effectively protected through the ISI strategic policies. It was the leading manufacturing sector, among others with regard to its industrial production output and employment rate. The industry served as a source of employment and foreign exchange, accounting for about 10% to 12% of the country's total gross domestic product (GDP) in this period (Ministry of Trade and Industry, 2004)

The total employment in the manufacturing sector increased by nearly 90% between 1962 and 1969 (Ackah *et al*., 2014). Employment levels for the textile and apparel sector stood at 25 000 people in the late 1960s to 1970s, as seen in Table 1 below (Quartey, 2006). The new economic

policy pursued encouraged vertical integration into the textile subsector through the provision of support to cotton farmers, setting up of government-owned textile firms and the development of a national trading company to sell the manufactured products locally. The sector began from the production of cotton through a successive production chain to the finished garment. This contributed to its growth and, by the mid-1970s, 16 large to medium-sized textile manufacturing and 138 medium and large-scale garment manufacturing companies had been established.

Table 1: Activity within Ghana's textile industry, 1977-2005

	1977	1995	2000	2005
Output (million yards)	129	46	65	39
Employment	25,000	7,000	5,000	2,961

Source: Quartey (2006)

However, by the beginning of the early 1970s, the ISI strategy began facing challenges after the removal of Dr Kwame Nkrumah the first president of Ghana (1957-1966). There was a general shift from a centrally planned to a market-based governance system. Killick (2010) asserts that the Busia government (Busia was Ghana's Prime Minister from 1969-1972) preferred private enterprise-led development (such a preference was based on political ideology) and undertook certain fiscal and monetary policies that led to the decline of the industry. This is confirmed by Figure 1. The decline in both variables is very clear from 1968. This sudden shift in policy from

over-protected state-owned enterprises to creating a favourable environment for private sector growth greatly affected the textile industry.

Ackah, Adjasi, & Turkson (2014) assert that, within this period – in the mid-1970s to 1983 – government adopted some inappropriate domestic and macro-economic policies that led to deterioration in the Ghanaian industrial sector, financial performance and the economy at large. These policies included a large fiscal deficit being financed largely by borrowing from the domestic financial sector. This led to a sharp increase in money supply, resulting in high inflation, a high exchange rate and the closing down of most private investments. This resulted in a decline in export earnings and a tremendous increase in imports (Quartey, 2006). This increase in imports also affected the textile and garments sector by creating an environment of unhealthy competition with garments from Asia, especially China.

Production capacity utilisation in most selected import-substituting industries dominated by SOEs declined from the mid-1970s to 1983. Ackah *et al*. (2014) state that there was no foreign exchange to buy manufacturing inputs in the early 1970s, which partly led to this decline. For example, the average capacity utilisation ranged from 43% to 52% from 1970 to 1977, and deteriorated to 21% by 1982 (Ackah *et al*. 2014). As noted in Figure 1, the decline in textile and clothing contribution to MVA from 1979 to 1986 is very clear.

Ackah *et al*. (2014) note that local industries were established behind highly protective barriers in the ISI period, making the import-dependent industries inefficient in utilising domestic resources. Hence they could not cope with competition from the outside market when the economy was liberalised. With regard to the textile industry, the trade reforms increased the

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importation of finished textile and used apparel, which further accelerated the decline of the industry, as seen in Figure 1 above (Ackah *et al*. 2014; Quartey. 2006).

By 1982, the T&A subsector had decline drastically (see Figure 1) due to the above reasons and, most importantly, the shortage of foreign exchange for importing raw materials resulted in firms operating below capacity.

3.2.2 Structural adjustment programme (Economic Recovery Programme, 1983-1992)

The structural adjustment programme (SAP) refers to the comprehensive set of policies that form the basis for countries to access loans provided by the International Monetary Fund (IMF) and the World Bank to certain countries that are experiencing some kind of economic crisis. These institutions require countries to undertake some kind of policy reform in order to access new loans (Lensik, 1996). The SAP was instituted with the aim of reducing the beneficiary country's fiscal and monetary imbalances in the short to medium term and also to readjust the economy in the long run (Lall, 1995)

The Economic Recovery Programme (ERP) policies were introduced in 1983 as part of the structural adjustment programme (SAP) to address and reverse the decline in the manufacturing and the industrial sector. A market-determined exchange rate with minimal intervention was introduced, price and distribution controls were removed, the import licensing system was abolished, the remaining price distortion was eliminated and attention was shifted from SOEs to private sector development. Although this yielded significant results in 1985, as seen in Figure 1, in subsequent years the manufacturing value added rate fluctuated and growth was sluggish.

The decline in the manufacturing value added was attributed to the private sector's slow response to the trade reforms, unreliable water and power supply, an unstable industrial environment and perverse bureaucratic procedures at the port, and these all contributed to the decline in the textile subsector (Ackah *et al*., 2014).

3.2.3 Post-SAP (1993-2002)

In the mid-1990s, additional policies were designed to support the viable but distressed firms that still struggled under the trade reforms, including those from the textile and garments subsector. The policies included Private Enterprise and Export Development (PEED), the Trade and Investment Programme (TIP), and tariff policy reforms – all to boost the industrial sector.

A critical look at the export figures in Table 2 shows that, in addition to other factors, the additional policies introduced in the 1990s may have contributed to the accelerated export growth from 1992 to 1994, which is confirmed by the slight increase in manufacturing value added in Figure 1, after which the exports of textiles continued to decline. There is also a sharp rise in export, from 76.7 million USD to 179.7 million USD, between 1993 and 1994. There is a further drop to 7.7 million USD in 1995. These dynamics are difficult to explain, as such a rise cannot be wholly attributed to the additional policies implemented. The literature, such as that by Quartey (2006), proffers no explanation for these changes in exports between 1993 and 1995. On the other hand, imports continued to increase from 1992 to 1998 and decreased in 1999 (see Table 3). It can be asserted that the industry responded marginally to these policies and not in a sustainable manner. Ackah *et al*. (2014) note that liberalisation exposed the textile subsector not only to fierce competition from productive, efficient economies in Asia, but opened up the

financial sector (an offshoot of the SAP), which led to high interest rates, rising depreciation and an increase in production costs.

Table 2: Exports of Ghanaian-manufactured fabrics

Years	1992	1993	1994	1995	1996	1997	1998
Export US$ million	27.18	76.7	179.7	7.703	3.429	5.074	3.173

Source: Quartey 2006

Table 3: Imports of selected fabrics

Years	1992	1993	1994	1995	1996	1997	1998	1999
Imports US$ million	34.57	38.28	39.40	42.30	53.35	52.65	56.55	42.29

Source: Quartey 2006

Looking at the large numbers of textile and apparel firms in the 1970s, the textile manufacturing firms were reduced to four firms by the year 2002, and apparel firms declined to about 15 operative firms by 2002 (Quartey 2006; USAID, 2016). However, this period saw stabilisation in the growth of the sector, as can be seen in figure 1.

3.2.4 Ghana poverty-reduction strategies (GPRS) (2003-2009)

The first half of the 2000s saw a shift in the focus of national policies with the aim of creating wealth through the transformation of the economy. This was expected to achieve growth and accelerate a reduction in poverty, among others. This led to a World Bank-sponsored GPRS I (2003-2005) and GPRS II (2006-2009), which focused on p industrial development led by the private sector through the application of science and technology (Ackah *et al*. 2014).

Ackah *et al*. (2014:8) state that

> "The policy strategies within the industrial sector were aimed at promoting agro-processing, facilitating the development of commercially viable export and domestic market-oriented enterprises in the rural areas, improving agricultural marketing and enhancing access to export markets, improving the competitiveness of domestic industrial products, promoting industrial subcontracting and partnership exchange and promoting the development of the crafts industry for export".

However, a key initiative targeted at improving the manufacturing sector was the Presidential Special Initiative (PSI) introduced in 2004. This was to develop the manufacturing of some selected products, including textiles and apparel, to take advantage of the AGOA. Key national economic policies, introduced under PSI to promote the growth and competitiveness of the textile and clothing sector, included textile/apparel cluster networks, a textile/garment training centre, a PSI-export action programme, credit facility and tariff structures.

The apparel clusters and the apparel training centre were established under the ethical fashion initiative. This was a project instituted by the International Trade Centre and the Swiss

government in partnership with Ghana's Ministry of Trade and Industry. The project was intended to provide supporting services for emerging designers to build long-term brands and identify new markets in the global economy. Support included capacity building, product support, technical assistance and business plan development.

The programme support was provided through a targeted policy approach, with no tentative plan to monitor results or performance indicators. Also, because of the weak capabilities of Ghanaian civil servants in implementing policies, the targeted approach of this support may have yielded less impact or less than the required objectives. Backward linkages in a broader policy approach of providing institutes to ensure the sustainability of a continuous supply of these supporting services had not been established.

Secondly, although the market for export is identified to be huge within the Economic Community Of West African States (ECOWAS) regions, bottlenecks were identified that impeded the Ghanaian industries from exploring the ECOWAS market. The PSI may have had a marginal impact for a short while, as can be seen in Figure 1, where there is a rise in the MVA from 2005 and a decrease in 2007.

In 2006, the government launched the trade policy set within the context of the GPRS II, which focused on export- and domestic market-led industrialisation. The tariff structure was revised to increase duties on the import of apparel and finished fabrics, while tariffs on manufacturing raw materials for the industry attracted zero-rate tariffs to make the industry price efficient.

Over the years, this policy has started to generate tension between the domestic- and export-led industrialisation strategy. This is due to the fact that the initial objective was for the textile

manufacturing industry to feed the apparel firms. Since production had dwindled, it became necessary to import for the apparel industry, and over time the raw material for the apparel industry has been diversified into man-made fabrics and other blends from a cotton base, which are not produced by local manufacturers. Hence the tariff structure of higher duties on finished fabrics, which can be synthetic fabrics or other cotton products with high upgrades such as cotton blends with other man-made yarns, will make the apparel sector uncompetitive in price. Blonigen (2011) asserts that IPs are targeted to industries for reasons such as nurturing through the provision of assistance to overcome entry barriers. However, if a firm protected is an upstream firm that provides key inputs to the downstream firms, the purpose of assistance may be defeated (Blonigen, 2011).

3.3 Structure of the Ghanaian Textile and Apparel Subsector

Currently, the apparel value chain is disintegrated from the textile manufacturers. The retailers, wholesalers and exporters in this chain who serve as intermediaries have also changed roles as a result of the emergence of GVC. These actors in the chain initially were main customers of the domestic manufacturers. Especially retailers in the Ghanaian textile chain served as intermediaries for the consumers and the textile manufacturers. They specified designs and products for the manufacturers according to customers' demands.

Due to the realignment of production networks, domestic retailers import finished textiles which are predominantly man-made fabrics, shifting from the cotton-based fabrics produced by the local textile manufacturers (Gereffi *et al*., 2001). Also, major apparel products initially produced locally are imported as school uniforms and other wearables, as they contract textile and apparel firms in China to make products akin to what they used to procure from the local markets. The reasons for this are that prices are cheaper and lead times are short for large quantities.

Looking at Figure 2, which consists of the exports and imports of textile fibres, yarn, fabrics and clothing products, it is clear that imports increased consistently and in high volumes compared to the trend of exports.

The Ghanaian textile manufacturers produce predominantly cotton textile fibres, yarn and fabrics, hence the high imports of such products seen in Figure 2 is suggestive of the low demand for the locally manufactured products or the limited supply of such products by local firms. The high volume of imports that include clothing in Figure 2 also shows how the apparel firms are constrained in the local market through market share. If exports were high then it could be suggested that the textile subsector was performing, but the low exports confirm the decline in the sector. It could be argued that, although interventions and policies were enacted to revive the industry, they may not have been sustainable or effective.
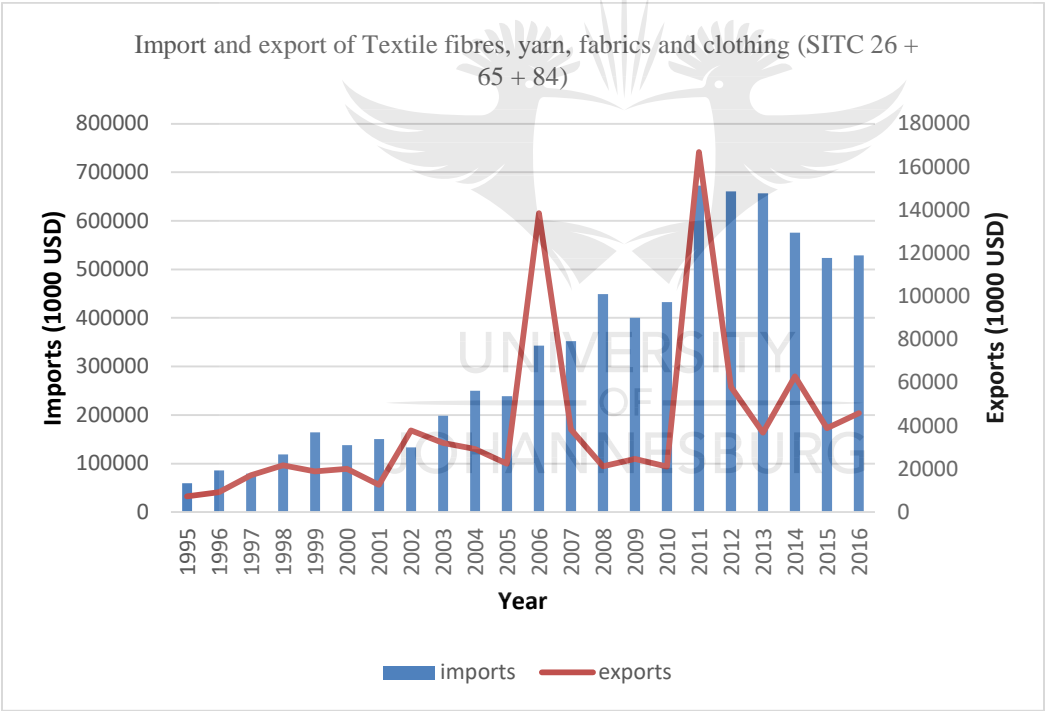
Figure 2: Imports and exports of textiles and clothing

Source: UNCTAD Database(accessed in 2017)
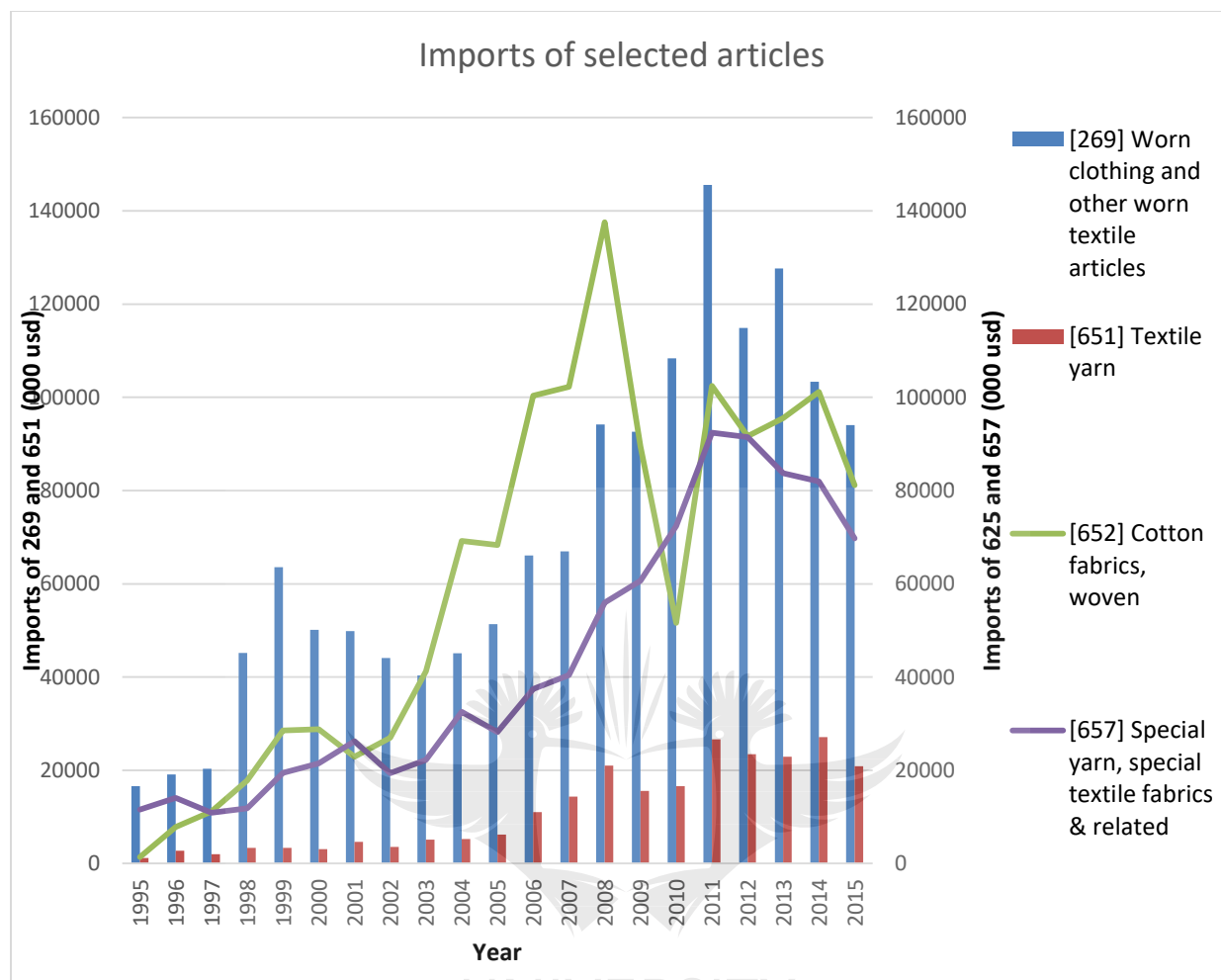
Figure 3: Imports of selected articles of textiles and apparel

Source: UNCTAD Database (accessed in 2017)

A close analysis of the aggregate imports to see how the individual products accounted for the aggregate imports shows that imports of worn clothing and cotton products form the largest part (compared to the import of textile yarn, cotton fabrics and special yarn) of the aggregate imports, as seen in Figure 3. There is also continuous growth in the import of used clothing, which creates a competitive environment for locally made clothing.

Imports of worn clothes and textile articles have been the biggest challenge for the textile and garments industry in developing countries. These products come in cheap in great variety, both in style and fabrics. Its patronage is on the higher side than that of newly made garments or

textiles produced locally. This has had an adverse effect as it has reduced the consumption and demands for local textile products (Mangieri, 2006).

As can be seen from Figure 3, the imports of these worn fabrics outweigh that of cotton fabrics, which are raw materials or inputs for the apparel subsector. The imports of textile yarns are also very low. It is clear that competing with worn clothing is a big challenge for the local apparel industry.

Figures 4 and 5 below show the trading in textile products between Ghana, the EU, the USA and the ECOWAS in connection with imports and exports. Exports of textile products from Ghana to the USA were more in volume than to both ECOWAS and the EU. In the year 2005/2006, exports from Ghana to the ECOWAS region increased, but declined from 2007 to 2009. Imports from the three regions are higher than exports, which is suggestive of the non-performance of the textile sector. As argued by Nordås (2004), more imports of textile products that exports depict a weak backward linkage in an industrial sector. The overall observation from the overview of the Ghanaian textile subsector confirms less building of firm-level capabilities in order to compete effectively in the competitive global markets.
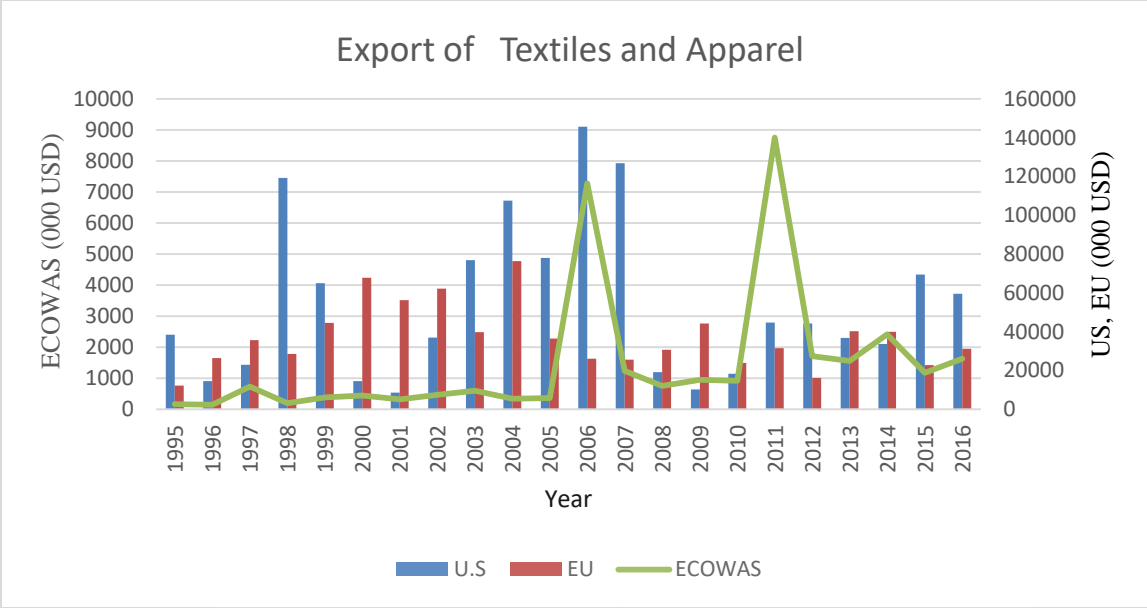
Figure 4: Exports of textiles and apparel (aggregates) to the US, EU and ECOWAS markets

Source: UNCTAD Database (accessed in 2017)
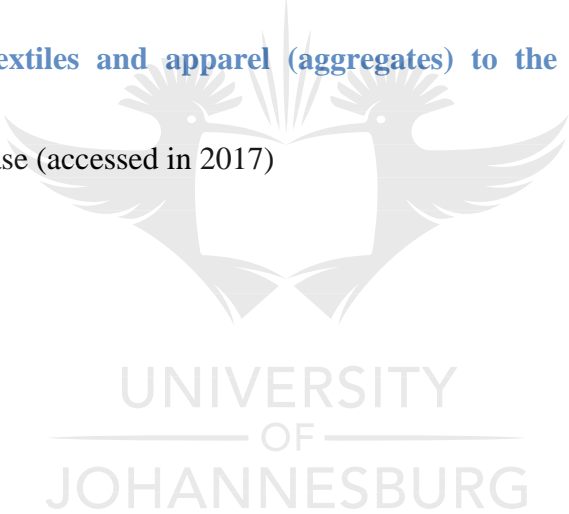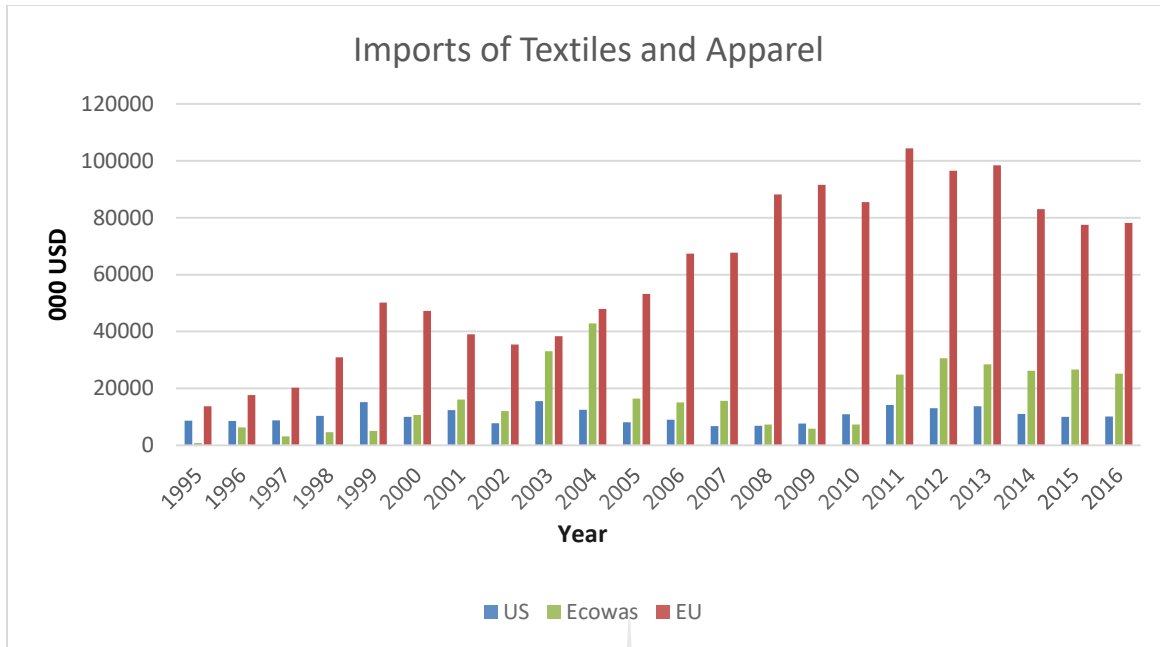
Figure 5: Imports of textiles and apparel (aggregates) from the USA, EU and ECOWAS markets

Source: UNCTAD Database (accessed in 2017)

It can generally be seen that the structure of the textile and garment industry is dominated mainly by the import of both fabrics and used or worn clothing. The major import market for these products is the EU market, while exports are targeted mostly at the US market. The data also clearly indicates that Ghanaian exports are focused mainly on the US market, although there is duty-free access to both the US and ECOWAS markets. It would be important to develop strategies to exploit more of the sub-regional market.

4   METHODOLOGY

4.1   Introduction

In "value chain research, the best way to proceed may involve a judicious combination of quantitative and qualitative research tools" (Hellin & Meijer (2006, pg.6). They further assert that, "when quantitative methods are combined with a credible understanding of complex real-world situations that characterise good qualitative studies, we can gain a sound understanding of the problems and opportunities faced by different players in the various value chains on which we are focusing" (Hellin & Meijer (2006, pg.6). In view of this, this study used quantitative data in terms of export and import figures to describe the phases the sector has gone through to achieve its current state and uses qualitative tools to assess factors that affect the performance.

This chapter explains the rationale regarding the research methodology chosen for the study and further explains how the study was carried out and data collected and analysed. The analysis and discussion in this research are based on data collected from two complementary sources. The first source of data is from the fieldwork, which consists of primary qualitative data collected from firms in the sector. This field data was collected using questionnaires and semi-structured interviews. Data was also collected from secondary sources, like the literature and databases such as the World Development Indicators (WDI) of the World Bank.

4.2   Research Design and Study Process

In this section the stages that were undertaken in the entire research process are discussed. The design process is based on Crotty's (1998) ideology of designing a research proposal and study. This framework was coalesced into three questions:

a.   What theoretical and knowledge claims are being sought by this research?

b.   What investigative methods would produce the best results?

c.   What data collection and analysis tools would be employed?

Based on this, this research was designed by firstly conducting a desk review of the current state of the Ghanaian textile and apparel industry and identifying some problems. The core theoretical

perspectives and assumptions were used in the development of a research proposal, which included the problem and proposed research methodology.

Furthermore, the literature review conducted informed on the link between the theoretical perspectives on the global value chain, local factors that influence a firm's performance, and its ability to participate in and derive the maximum benefits from the GVC. These factors were then used in the development of questionnaires and semi-structured interview questions. This survey methodology allowed the study to gather firm-level qualitative data, which was analysed in view of the theoretical perspectives, literature and comparisons drawn with some selected countries.

4.3   Survey Population

The identified sample for the survey was 10 firms, which included four textile firms and six apparel firms. Currently there are only four large[1] textile companies operating in Ghana. The study therefore focused on these four companies and three of the four responded to the questionnaire and interviews. For the apparel firms, purposive sampling was employed in the selection. The purposive sampling technique involves deliberate actions of choosing participants due to the qualities they possess. Evidently, considering the scope of this study and as asserted by Bernard (2001), a decision in this regard depends on the researcher, who decides what needs to be known and sets to find people or firms who can and are willing to provide information by virtue of their knowledge or experience.

A database of apparel firms from the Textiles Unit of the Ministry of Trade and Industry was used. The database is clustered into small and medium- to large-scale apparel producers. For the purposes of this study, medium- to large-scale enterprises with the capacity to export were sampled. Of the nine companies still in operation and with the capacity to export, six were randomly selected and contacted. Of these six companies, three responded to the questionnaires and interviews.

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[1] "In Ghana, the most commonly used definition of SMEs is the number of employees of the enterprise. In applying this definition, however, there is some controversy in respect of the arbitrariness and cut-off points used by the various official records" The Ghana Statistical Service (GSS) defines small businesses as enterprises that employ fewer than 10 people, while those that employ more than 10 people are classified as medium and large-sized enterprises. Based on this definition, there are no small textile-producing companies". (Kayanula & Quartey, 2000, pg. 8).

The textile firms are labelled T1, T2 and T3, while the apparel firms are labelled A1, A2 and A3. This is to ensure the anonymity and confidentiality of the informants and data.

Textile Firms

Firm T1: Has 620 employees and its principal product is grey bath which it sells to other textile firms and its major activity is spinning and weaving. It has a partnership with the government and has a plant size of 35 088 spindles.

Firm T2: Has 650 employees and its principal product is printed fabrics. Its major activities span dyeing, designing and printing. It has a partnership with a multinational company and its annual volume of fabrics produced is 20 million yards.

Firm T3: Has 483 employees and its principle product is printed fabrics. Its major activities span dyeing, designing and printing. It is locally owned with no partnership and its annual volume of fabrics produced is 17 million yards.

Apparel Firms

Firm A1: Has 256 employees and its principal products are garments and accessories (including handbags made of fabrics). It is locally owned and endeavours to export.

Firm A2: Has 200 employees and its principal products are garments. It is locally owned and exports some apparel products.

Firm A3: Has 16 employees and its principal products are garments. It is affiliated to a multinational firm and exports most of its products.

4.4 Methods of Data Collection

4.4.1 Questionnaires

The questionnaire identified what firms in the industry are doing and the factors that influence their performance and possible integration into the GVC. The factors in the questions asked were informed by the theoretical literature on GVCs (Kaplinsky & Morris, 2014). Issues that the

questionnaires aimed to elucidate comprise access to inputs, the nature and quality of infrastructure, availability of finance, access to the market, compliance with standards and certification, current impact of policy and regulations, investment in technology and product development, and firm's participation in business and membership organisations.

Two types of questionnaires were designed (Appendix 1 and 2). The first questionnaire was for the textile producers and the second for the apparel firms. It must be noted, however, that before face-to-face contact was made, the initial contact the identified companies was by e-mail, with the questionnaires and proposed dates for interviews being agreed upon. Ten questionnaires were sent out: four (4) to textile firms and six (6) to apparel firms. Three textile firms responded, while three apparel firms also responded. There were no responses from the other firms, as follow-up calls yielded no feedback. In additional to the above issues, the questionnaire for the textile firms asked whether there had been increases or decreases in their production output, profits, the availability of raw material (cotton), and if they employed efficient technology to boost the firm's and/or personnel performance.

4.4.2 Interviews

The objective of using a qualitative research interview is due to its ability to describe and explain the significance of central themes in the life world of the subject. The main task in interviewing is to understand the meaning of what respondent report to be the key contributing factors to the Ghanaian textile/apparel subsector's non-performance. The literature categorises qualitative interviews into unstructured, semi-structured and structured. This study employed a semi-structured interview format.

Gill *et al*, (2008, pg. 291) asserts that

> "semi-structured interviews consist of several key questions that help to define the areas to be explored, but also allows the interviewer or interviewee to diverge in order to pursue an idea or response in more detail. The flexibility of this approach, particularly compared to structured interviews, also allows for the discovery or elaboration of

information that is important to participants but may not have previously been thought of as pertinent by the research team".

The interview schedule and questionnaires were sent to the selected population after the first contact had been made with them. The firms advised on the proposed schedule, which was revised into a tentative schedule. The interviews were conducted in two phases, using the questionnaire as an interview guide, from 13 December to 21 December 2016 and from 4 January to 24 January 2017.

The interview data was analysed and discussed in thematic topics. The qualitative research tool (interviews) not only provides a means to check the reliability of data from the questionnaires, but it also gives more insight into why actors are doing what they do and how they formulate their decisions.

The questionnaire and interview questions for this study are an adaptation from Megento (2011, pg. 145-175) and the draft questionnaire on cotton value chain in India from environmental sustainability perspectives from (Centre for International Trade, 2015).

4.5 Integrity of Data and Findings

The credibility and trustworthiness of data and research are ensured through triangulation. As a strategy, triangulation involves combining or employing qualitative and quantitative methodologies or strategies in data collection, analysis and reporting (Neuman, 2011; Teye, 2012). Although it is a complex strategy and can be challenging, it has the advantage of increasing the soundness of the research findings. Reliability and trustworthiness are promoted by combining methods and data sources to cross-check information (Davies & Dodd, 2002). This minimises the biases associated with using a single methodology and data source (Creswell, 2009). Denzin & Lincoln (2002) argue that triangulation increases the thoroughness and profundity of research outcomes. It also allows the researcher to learn and understand phenomena by "observing from multiple perspectives" (Neuman, 2011:164).

To ensure the credibility of this study, triangulation was employed to validate the findings through combining primary data (questionnaires and interviews) and secondary data. Findings from other developing economies (Ethiopia and Mauritius) were analysed, compared to the findings of this study, and lessons were drawn that would inform policy development in Ghana.

5 DATA ANALYSIS, FINDINGS AND DISCUSSIONS

5.1 Introduction

This chapter presents and analyses the data collected in the field on the current status of the Ghanaian textile and apparel subsector and identifies challenges faced by firms in the subsector. Secondly, it assesses the local factors that affect firms' performance and their capacity to participate in GVCs. Thirdly, the chapter identifies and reviews existing strategies put in place by the government and relevant stakeholders to address these challenges to aid the sector to succeed in participating in GVCs. Fourthly, lessons are drawn by comparing the findings with the findings of other, similar studies on Ethiopia and Mauritius.

The local factors were selected on the basis of the literature and are not exhaustive in themselves. However, they provide a basis for the extensive analysis of the sector. They include inputs, market access trends, governance, policies, standards and certification, infrastructure, finance, business organisation membership, technology and product development.

5.2 Inputs

In this section, questions were tailored to find out if firms had access to key inputs and to determine the source of these inputs. It also determined supply constraints, which are a major factor in assessing the competitiveness of a sector.

Apparel Firms

The interview with the apparel firms indicated that access to inputs was a major challenge. According to their information, they import foreign fabrics, as the Ghanaian manufacturers currently do not produce raw materials such as silk, polished cotton, kaptan, spandex and linen. These fabrics are considered to have had value added to them, so they attracted high import duties. They also indicated that the imported printed fabrics are cheaper than locally produced ones. A respondent explained that:

> "The available local printed fabrics were expensive compared to the imported printed
> ones (some of which have pirated designs and smuggled), hence we alternated their use,
> and in some cases, we mixed the fabrics. We also paid high import taxes on most of their

raw materials,[2] besides nuisance red tape for registrations, and corporate tax, cumbersome inspections and export procedures, delay in custom clearance and port transactions. For example, articles with 85% or more by weight of silk attract an import duty of 20% (ad valorem applied to c.i.f.) and 12.5% National Health Insurance Levy (NHIL), while silk yarns attract ed just 10% ad valorem" (Apparel firm 2, 12, 2016).

Another respondent indicated that:

"My major concern as a manager regarding inputs is how much I pay as import taxes on the raw material imported from Europe for production. This brings extra financial demands which I think the government could have supported by allowing import exemptions or intervene in ways to ensure we could procure raw materials locally" (Apparel firm 1, 12, 2016).

Table 4: Summary of responses – apparel firms

Apparel firm	Source of input supply	Variation in cost of production over the last three years
A1	Europe, Asia	Increased by 30% over the past three years
A2	Europe, Asia, US	Increased in the past three years by 60%
A3	Europe, Asia, US	Increased in the past three years by about 40%

Source: Field interviews by researcher

Textile Firms

The textile manufacturers who produce printed fabrics explained during the interview that they were able to source grey bath, their key input, locally, but only in small quantities. Concerns were raised about there being only one textile-spinning mill, and that it being also operating below capacity to supply key inputs. The manager of the spinning mill explained that:

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[2] Raw materials for apparel firms include printed fabrics, while raw materials for textile firms include chemicals, dyestuffs, cotton and cotton yarns.

"We have a plant capacity of 35 088 spindles, with an old technology which runs at 164 ppm, laying 225 meters of waft per minute. This is inefficient since new technologies lay between 4 000 and 6 000 meters of waft per minute. In addition, the nature of this power loom demands constant attention in repairing broken waft, which also consumes time, high electricity and resulted in less output in a day."

It was further noted that:

"We are not able to meet demand from the firm that sources grey bath from us. Currently we order 1 466 tons of medium staple cotton fibres … from the local farmers in addition to imports. The issue is that cotton farmers in Ghana prefer to rather export the cotton because they claim they get [better] prices from exports than what we offer them" (Textile firm T1, 1, 2017).

Furthermore, supplements to the locally sourced grey bath and chemicals for production were imported, which added to the cost of production and subsequently affected pricing. The manager of a textile firm complained that "raw materials are imported, making cost of production high. High stocks of these inputs needed to be kept due to long lead times of procuring them, which also [lock up] capital" (Textile firm T2, 1, 2017).

Discussion

Based on the interview data, it is obvious that the supply of inputs like cotton fibres, fabrics and accessories are identified as a major constraint for both the apparel and textile firms. The challenges associated with accessing these inputs added to the cost and made the Ghanaian firms less competitive. This is because local apparel firms have to import fabrics with high import duties due to the fact that local textile firms do not produce enough fabric with the requisite quality for the local apparel firms. Also, textile firms have to import staple cotton, dyestuff and other chemical inputs with high import duties, thereby increasing the cost of production.

This illustrates the inadequately strong linkages within the Ghanaian textile and apparel sector. The promotion of backward and forward linkages between the different sections of the value chain could help to improve the subsector. An example is a well-structured buy-back

arrangement, according to which textile firms enter into a supply agreement to produce fabrics with the required specification for apparel firms at a relatively cheaper price compared to imports. This would go a long way to improve the subsector.

Studies by UNCTAD (2005) on the Pakistani textile sector confirm that the development of supporting local systems and backward linkages, such as supporting institutions that provide services in supplying inputs linked to the textile/apparel chain, improve firm-level performance by providing inputs at a cheaper cost than imports. This can further result in upgrading into higher value activities for the whole subsector. The competitiveness of the textile/apparel value chain can be enhanced through the backward vertical linkages, such us the development of a textile firm that feeds the apparel firms with the required raw materials. As indicated above, firms in Ghana observed that such linkage are absent, hence these firms face challenges with their key inputs.

Other trade barriers, like customs procedures for import clearance, increase the cost of procuring inputs. Data from the World Bank Enterprise Survey (Table 7) indicate that firms identifying customs procedures and trade regulations as a major constraint increased from about 10% to 25% between 2007 to 2013, while days to clear imports from customs increased from 6.8 to 14.8 between 2007 and 2013. However, the respondents confirmed that they had held several discussions with the authorities and were confident that the soon-to-be-implemented paperless port system would reduce this constraint.

Respondents from the apparel and textile firms acknowledged that, although policy interventions such as the Ghana's Industrial Sector Support Programme (ISSP) that was launched in 2010 had a clear objective to improve access to raw materials as a major component under its production and distribution thematic area, its implementation had been lacklustre and generally did not have an effect on the raw material base of the subsector (Apparel firm A1, 12, 2016; Textile firm T2, 2017). Additionally, a textile firm indicated that "we are aware of a scheme to waive duties on raw cotton, but we have never been able to access this waiver as we are informed the approval system is lengthy and cumbersome with the need for approval from both the Minister for Trade and Industry and Minister for Finance" (Textile firm T1, 1, 2017).

A case study on the Pakistan textile industry highlights that government's broad policies to establish such linkages in its 'Textile Vision 2005' Policy Framework, through which it addresses the issues of raw material for the textile/apparel value chain (UNCTAD, 2005). The objective of the policy included building the textile industrial sector's competitiveness to increase overall exports from Pakistan through GVCs. This led to a growth rate of 20% and 24.5% in 2004 and 2005 respectively (Ahmed, 2011). This was achieved through additional investment in the downstream sector to increase the man-made fibre raw material base. The expansion of the production of polyester staple fibres and spandex was encouraged. This fostered collaboration between local manufacturers, which facilitated key input supplies. However, these initiatives were not sustained, leading to a decline of up to -1.78% by 2010 (Ahmed, 2011).

Furthermore, in solving issues concerning limited spinning mills for the textile industry in Mauritius, the government granted special fiscal incentives to foster the creation of spinning mills to increase the production of raw materials in its budget for 2003/2004 (Joomon, 2006). This was extended to textile spinning mills, which included weaving and dyeing activities, in 2005/2006. Investors who set up textile spinning mills could access special tax credit of 60% of equity investment and a 10-year tax holiday. This contributed to the increase in textile spinning in Mauritius, enabling the textile sector to meet the AGOA rules-of-origin criteria. The AGOA rules-of-origin criteria puts forth the amount of processing that needs to be done locally for a product to be accepted as the "economic origin" of the exporting country, in this case Mauritius (Nauman & Hartzenberg, 2002).

Sterling performance is associated with the Ethiopian Government in addressing access to inputs for the textile sector (Staritz *et al.*, 2016). Policies were drawn up and efforts were made to ensure a vertically well-integrated sector with an increase in local value addition through the strengthening of the backward and forward linkages. In 2016, a report by Textile Industry Development Institute (TIDI 2016) showed that there were 155 textile firms in Ethiopia, included ginning, spinning, weaving, knitting, apparel, handloom, trims and accessories, packaging, printing, dyeing and finishing firms. Indeed, where the inputs were not available locally, the government provided facilities that allowed exporters to import inputs duty free for export production. The key objective was to build and improve the capacity, quality and price of

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the products from the textile/apparel sector through a well-integrated industry in order to reduce or avoid the dependence on foreign inputs (Staritz *et al*., 2016). This shows a clear and conscious effort by government to improve access to key inputs and to support services that reduce cost and production time for the Ethiopian textile apparel sector. The absence of such interventions in Ghana, in contrast to the situation in Ethiopia, Mauritius and Pakistan, may have accounted for the inefficient productivity of the Ghanaian textile and apparel firms.

5.3   Market Access Trends
This section ascertains how the Ghanaian textile and apparel firms have responded to trends in the global economy with respect to access to foreign markets.

Textiles
Data from the firms obtained through the interviews confirmed market access as among the key challenges affecting their ability to build industrial capacity. This is because the market demand is a pull factor that drives production. Research participants from textile firm T3 expressed frustration at trying to gain access to the ECOWAS regional market, especially the Nigerian market. Another respondent noted that:

> "It is very frustrating when our products are tailored to satisfy the African market both in designs and colours. They are supposed to suit the African traditional culture and weather. Yet our inability to reach this sub-regional markets affects us greatly, and I think the government should renegotiate for access. Even in our own local markets, some market share has been lost to cheaper imported fabrics similar to our products" (Textile firm T2,1, 2017).

This assertion is also confirmed by Quartey (2006), in his study of the Ghanaian textile industry.

Table 5: Firms' major market information

Textile firm	Major market buyers	Governance structure

T1	Local textile firms[3]	Government owned
T2	Local consumers and regional countries	Affiliation with multinational company
T3	Local consumers and regional countries	Locally owned

Source: Field interviews by researcher

Apparel

A respondent from an apparel firm emphasised access to the international market as a great challenge, and suggested that they needed platforms to exhibit their products in order to gain further market share. It was posited that "we need direct connections to global buyers as well as international trade fairs to make such contacts" (Apparel firm A2, 12, 2016).

However, a manager for an apparel firm said that:

> "Due to our firm structure and affiliation with Ghana Trade Hub under the United States Agency for International Development (USAID) project, we gained some access to the US market and to some global buyers. We are given some opportunities to make travels to where these buyers sometimes make bilateral negotiations. Vice versa, the buyers come to visit us and inspect our operations, and support us with expert advice on how to meet their demands and requirements" (Apparel firm A3, 12, 2016).

Table 6: Summary responses – market and governance

Apparel firm	Main supply market/buyers	Governance structure
A1	Local market, regional market	Locally owned

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[3] Local textile firms in this section of the chain buy grey bath from other textile firms and convert it to printed fabrics.

	and US	
A2	Local market and firms that export	Locally owned
A3	US market, local market	Affiliation with US buyers

Source: Field interviews by researcher

The study shows that, although Ghana has signed number of economic trade agreements, such as the African Growth and Opportunities Act (AGOA), the Economic Partnership Agreement (EPA) and the ECOWAS Trade Liberalisation Scheme (ETLS), market access is still a challenge. Whiles these agreements are supposed to provide duty-free access to the market, rules-of-origin provisions make market access difficult. The EPA, for example, requires a two-stage conversion system , where garment producers are to make apparel from local fabrics, but this requirement does not take into consideration the dynamic nature of the textile and apparel firm and its relationship to GVCs. Generally, global buyers determine fabric sourcing specifications and price margins, and stipulate process parameters from design to lead times. These put a strain on Ghanaian producers and restrict market-access opportunities.

As noted by Langhammer and Hiemenz (1990), regional trade presents varied opportunities for developing countries. His study showed that regional trade provides developing countries the opportunity to promote intra-industrial specialisation through product diversification, thereby improving a firm's competitiveness. Regional trade presents greater market access, which facilitates or guarantees economies of scale. More importantly, such trade allows firms in developing countries avenues to grow their competitiveness gradually, avoiding the harsh competition and high barriers that are sometimes associated with the global markets and their allied challenges.

It seems this is a missing link in the ECOWAS regional trade and other identified inefficiencies. Developing the better performance of a country in GVCs has been attributed in part to their efficient regional trade, which allows them to build the capabilities to compete efficiently

globally (Langhammer & Hiemenz, 1990). China, notwithstanding its prowess in international trade, has long recognised the importance of the regional market, dominated by production sites across several countries in Eastern Asia.. Latin America is doing same by strengthening trade relationships through Mercosur and other regional strategies.. Furthermore, South Africa is providing leadership in developing a regional trade strategy for SADC. (Milberg *et al*., 2013).

However, ECOWAS member states have not taken full advantage of the sub-regional market. This study, for example, found that Ghanaian textile firms find it difficult entering the Nigerian market due to certain non-tariff barriers which in themselves defeat the regional integration agenda. It is also clear from Figures 4 and 5 that imports and exports of textile and apparel for the EU and US markets far exceed that for ECOWAS. It is expected that the Continental Free Trade Area being negotiated would spur intra-African trade and, more specifically, regional trade through the complete removal of all trade barriers within Africa.

Staritz *et al*. (2016) argued elsewhere that the Ethiopian government put in place measures and interventions that provide solutions to technical barriers to trade[4] and rules-of-origin problems by facilitating investments that led to the development of textile manufacturing, consequently providing quality fabrics for local apparel producers. This allowed the firms to harness the benefits of GVCs through the various economic trade agreements.

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[4] Technical barriers to trade are technical regulations and standards that define product characteristics in terms of packaging, labeling, performance and health and safety regulations.

Figure 6: Export of textiles and clothing

Exports of textile fibres, yarn, fabrics and clothing (SITC 26 + 65 + 84)
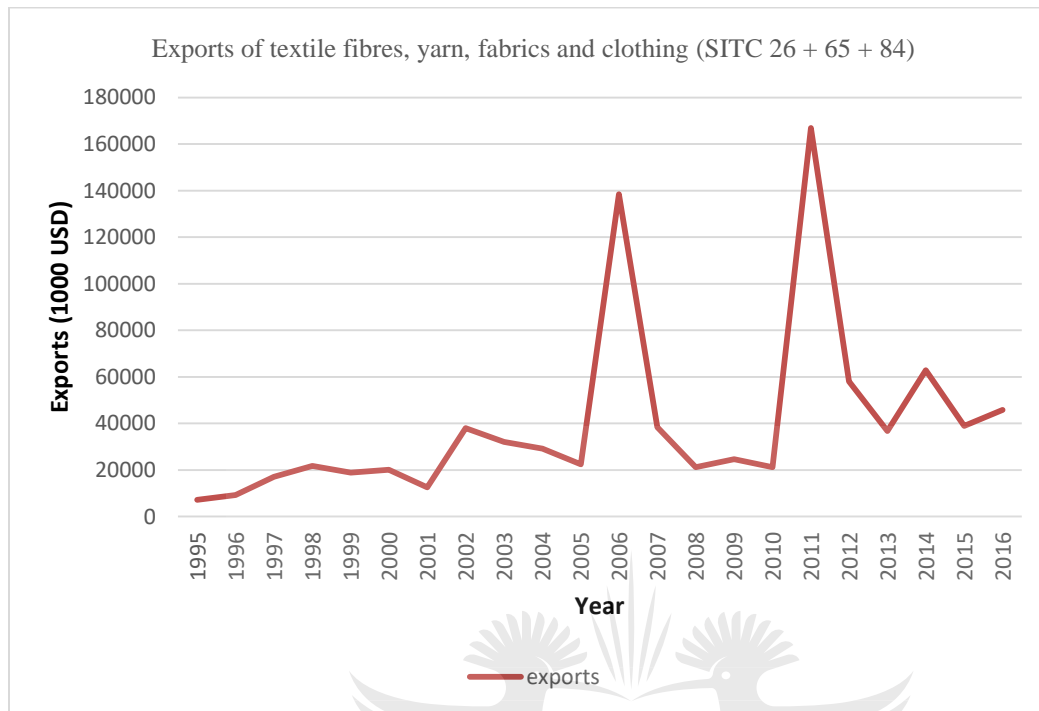
Source: World Bank Group, WDI,data.worldank.org

5.4   Governance

This study analysed governance as the institutional frameworks and practices that support the development of the textile and apparel firms. The governance framework has an important influence on how the firms perform, improve competitiveness and integrate into the value chain. This is because investors' considerations of make-or-buy activities are in part shaped by the trade-offs between lower production cost and higher transaction cost. In countries like Ghana, where there are weak (or perhaps compromised) institutions, weak contract enforcement, widespread corruption, burdensome administrative procedures, several barriers to trade and poor infrastructure, it is a hefty challenge for lead firms to benefit from inter-firm coordination with local counterparts (Altenburg, 2007). Altenburg (2007) further indicates that transactions, contracts and inter-firm coordination activities in Ghana are costlier and riskier to enforce, especially because of the weak institutional framework. From the interview data it is clear that

producers have limited supportive institutional frameworks. This is confirmed by the implementation of the Presidential Special Initiatives, which targeted selected subsectors including textiles and apparel.

The initiatives put in place a sector coordinator, provided an enclave within the Free Zone area with tax incentives, and supplied sewing machines to some of the firms. For those producers who were outside the Free Zones, the Ministry of Trade and Industry provided subsidised rental facilities. In addition to this, the coordinator, together with the Ghana Export Promotion Authority, assisted the producers to find markets and provided training in export market development. These support systems might have led to the drastic increase in exports between 2005 and 2006, as can be seen in Figure 1. The PSIs were implemented alongside the Private Sector Development Strategy I (PSDS I), which sought to reform certain public sector institutions that provided direct services to the private sector. A combination of these two interventions may have contributed to this rise in exports. While the PSI provided sector-specific interventions, PSDS I improved the institutional and regulatory framework for doing business.

The interviews also identified another value chain facilitation problem: the challenge of the local firms developing relationships with global buyers. The Ghana Export Promotion Authority, which is the government agency responsible for export market development and, more specifically, for connecting local firms to foreign buyers , is under-resourced and mostly unable to provide these services. However, the National Export Strategy launched by the government in 2003 seeks to resource the Ghana Export Promotion Authority to enable it to develop a diversified export market for producers (Ministry of Trade and Industry, 2013) and can only sponsor a few producers to attend these fairs. Also, considering that the textile/apparel firms are classified as buyer-driven GVCs, engagement with a lead firm is needed to facilitate access in the production network before it can be further upgraded by the firms themselves.

5.5   Standards and Certification
The objective of this section is to examine firms' adherence to standards and certification, and to determine whether they have a better understanding of international certification and its impact

on them. It also examines whether there is a dedicated national regulatory body that issues uniform guidelines on certification/standards and monitors the textile/apparel firms' compliance.

Standards for textile and apparel products are more detailed and elaborate because they come close to the skin. This requires that production standards conform to international standards, are well tested and pass certain health and safety requirements.

Textiles

Based on the interview data, it was clear that standards and certification varied between firms. However, there is no regulatory body to give guidelines and to monitor the firms' compliance with international standards. A respondent from textile firm T2 posited that:

> "Our product needs to meet the washing and rubbing fastness test by international standards, which our multinational parent firm expects us to conform to. What Ghana Standards Authority (GSA) requested from us was to show the batch number on [the] label, as well as the date of manufacture, yardage per package and type of product. But there is nothing to do with the input in the production of the textile fabric in general."

This clearly indicates a contrast in the requirements of the regulator and that of the market (in this case the buyer). The other firms confirmed this assertion, but indicated that they sometimes use the textile laboratory of the Ghana Standards Authority when they are only required by buyers to provide a certificate of analysis as part of supply contracts.

Apparel

Similar to the textile firms, the apparel firms also experience certification and standardisation challenges. As a respondent from apparel firm A1 indicated: "As part of our efforts to enter into the global market, we are expected to meet ISO certifications with regards to apparel." The firms sometimes employ the services of external consultants since there is no standardised certification or institutions in this regard nationally. But some of the firms went to the extent of engaging the services of experts for international standards and certification, and this added to the production cost.

The World Bank Enterprise Survey indicates that the percentage of enterprises with an internationally accredited quality certification in Ghana increased from 6.7 to 9 from 2007 to 2013 (as seen in Table 7 below), while in Pakistan and Bangladesh (major exporters of textiles and apparel) it increased from 9.6 to 35.8 and 7.8 to 14.3 respectively. This shows a significant investment in standards and quality by these two countries compared to Ghana.

Table 7: Selected indicators for Ghana (Enterprise Survey, World Bank)

Indicator	2007	2013
Capacity utilisation (%)	72.7	65.8
Days of inventory of main input	14.5	27.6
Days to clear imports from customs	6.8	14.8
Percent of firms identifying customs and trade regulations as a major constraint	9.8	25.1
Percent of firms identifying access to finance as a major constraint	66.2	62.2
Percent of firms using material inputs and/or supplies of foreign origin	51.2	68.5
Proportion of total inputs that are of domestic origin (%)	73.4	52.3
Proportion of total inputs that are of foreign origin (%)	26.6	47.7
Percent of firms with an internationally recognised quality certification	6.7	9.2

Source: World Bank Enterprise Survey Database (accessed, 2017)

The apparel firms also noted that, "though there exists a standards institution in Ghana (GSA) its focus is on addressing standards issues in GVCs, bothering with food and food safety and not textile and apparel, since the government focus largely is on the exports of agricultural products. Thus the non-existing relationship between us the firms and the GSA in the dissemination of standards specification seems to be a huge constraint contributing to the non-performance limiting our efforts to export" (Apparel firms A1, 12, 2016). Apparel firm A1 further noted that: "I can assure you that firms that cannot afford to comply [with] ISO certification or other standards like we are trying, will be discouraged to export altogether."

Discussion

It is clear from the interviews that there are no national standard regulations for the textile and apparel industry, neither are the renowned international standards for textile/apparel production enforced within the organisations for monitoring and compliance. The firms set their standards or the customers stipulated their standards. This can be a local constraint on the Ghanaian textile

sector participating in GVCs, giving rise to deep information asymmetries: local producers have little knowledge of what standards are expected of them in the global market.

The use of recognised standards and their certification in GVCs is increasingly demanded in the global production networks. In the frameworks of T&A GVCs, the inputs used for apparel products must meet specific quality standards with regard to their physical and chemical properties. These tests may include quantifiable standards such as strength and dimensional stability of fabrics, abrasion and pilling resistances, and the colour fastness of the fabric. Due to the nature of these tests, they are mostly performed in laboratories against the specific standards set by global buyers in relation to the markets they serve (Pici, 2016).

A study by Schmitz & Strambach (2009)shows that such standard and certification institutions are increasingly in demand by and relevant for developing countries that participate in GVCs. The reasons for this are that standards and certification may reduce transaction costs and information asymmetries between the suppliers and the global buyers. It therefore is imperative that greater investment in the area of quality infrastructure improvement is encouraged, with government taking the lead. Although support for a quality infrastructure development was included in Ghana's Industrial Sector Support Programme (2010-2015), not much was done to improve standards and certification systems. Whilst government focuses on improving these systems it is important to build the competencies of firms and assist them to understand and apply new standards in production as a means to access GVCs.

A case study of the upgrade trajectory of the textile industry in Poland confirms that standards and certifications were critical for the country's upgrading or performance in GVCs. This is due to the fact that Polish suppliers targeted the EU market, which has very stringent regulations on standards regarding textiles and apparel, and quality certification is a key requirement for entry into the EU market (Yoruk, 2001).

Quality standards and metrology institutions therefore should be established to provide the basic framework for firms to communicate about technology. Technical assistance should also be provided for firms to maintain the basic standards for the industry.

5.6 Technology and Product Development

Questions under this section were aimed at establishing how the firms develop and diversify their product range and buyers and their investment patterns in training, equipment, quality control, management and management practices, marketing and distribution. In addition, they were used to establish how the inability to invest in these activities affected the firms' performance.

Textile

On the part of the textile firms, all respondents from the industry emphasised the cost of improving technology, which arises from incurring costs for training. A manager from Textile firm T2 explained that, "though our products may be the same in characteristics, the mode of production has evolved in the past five years. We have replaced manual printing machines with rotary screen printing. Also, we have changed to newer designing software for our prints. This also means we need to upgrade skills to meet technology. And we see a gap between the skill supply from the tertiary institutions and the skills needed for our operations."

The manager further explained that this may be due to the institutions not having updated their curricula as "we have updated our technologies and processes". Most especially, managerial and technical skills or skills for other high positions in managing a plant seem to be a major challenge for the industrial sector. Productivity becomes critical in more complicated textile/ apparel production in which designs and technological activities are involved (Textile firms T 1, 2017).

Apparel

Respondents to the questionnaire for the garment industries indicated that they invested in skills in order to diversify their products. One firm emphasised that they had to invest in new machinery and skills simultaneously. They specified that diversification for them as a garment industry mainly related to the fabrics they used with the appropriate machinery. For example, the manager of an apparel firm explained: "We have moved into more sophisticated products in the past five years. Due to the fact that most international clients we have contracts with give a lot of specifications, which include using delicate fabrics that make the product more sophisticated. Working on such products is very difficult because mostly we don't have such skills readily

available to work on those specifications with the high standards demanded by the international clients" (Apparel firm A2, 12, 2016).

In this regard, another respondent from an apparel firm with an affiliation with a global buyer stressed that "selling to the global market demanded us to move into using high tech fabrics, upgraded machinery and skills" (Apparel firm A3, 12, 2016). "In meeting such demands we have to invest in skills, resulting in high labour turnover of about 30% to 40% annually in our quest for achieving high efficiencies and productivity. One of the reasons accounting for this turnover was that trained employees leave to set up on their own or move to other firms where they earn more. We believe that if we are supported in this direction we could have channelled resources into other areas of production, which would have enhanced our performance as a firm" (Apparel firms A3, 12, 2016).

Discussion

Firm-level performance in relation to factors that facilitate the building of a firm's capabilities is important to benefit from GVCs. It was noted from the field data that some firms are investing in these new technologies either fully or partially. Partly due to finance constraints, they are not able to undertake all investments needed to absorb knowledge that may be transferred by lead firms. Although there is an abundant supply of labour, this is highly unskilled and lacks textile industry-related knowledge. Therefore the firms have been investing in costly employee training in order to increase their technological capabilities, thus presenting them with other externalities, such as the free-riding problems with regard to training, which is also mentioned in the literature by Pack and Saggi (2006) and Gereffi *et al*. (2001).

The above present great challenges for the Ghanaian textile subsector, since the investment in skills resulted in a relatively high labour turnover, a concern shared by all three firms interviewed. This is due to the fact that those receiving training in skills from the firms often leave to start up on their own or shift into other firms, where they are paid more due to the skills they have. It is important to note that Ethiopia has managed this constraint by focusing on improving technical and vocational education and training (TVET) with a special focus on textiles. This has led to the creation of a critical mass of skilled labour for the textile and

garments sector in that country (Staritz *et al*., 2016). (Scarpetta *et al*,. (2002) noted in their study that high hiring and firing costs likewise seem to hinder productivity, especially when these costs are not offset by lower wages and/or more internal training. The high costs of adjusting the workforce therefore seem to negatively affect the entry of new small firms.

The firms' current position in the lower end of the value chain thus is due in part to their limited capabilities, which do not allow them to move into more value-added ones. The limited international experience and networks of the Ghanaian producers in importing fabrics and other inputs on their own account makes them prefer to enter into CMT productions, where the buyers take the risk.

The issue of low capabilities in Ghana may also present a constraint for some buyers, who will prefer to source different types of products within a country. More especially, movement from CMT to FOB demands the development of skills such as knowledge of sourcing fabric and other inputs, product development, design, marketing and communication capabilities.

Romer (1990) agrees with this phenomenon and asserts that, in order to develop technological capabilities and change products, a firm also needs to have qualified human capital. Thus building technological capability depends fundamentally on firms' own investments in R&D and developing human resources and skills, particularly through on-the-job training (Audretsch, 1995) .

In this regard, Moretti (2004) shows that education in skills building has a positive relationship with firm-level productivity. Bartel (1995) also shows that, firms' efforts to provide firm-level training in connection with their production has high returns to investment through productivity. On the other hand, Acemoglu (1999a) shows that incentives for firm-level training, investment in R&D and skills will be low due to varied market failures connected to such investments. Hence firms will either underinvest or avoid such investments altogether if the labour they train leaves the job to join other firms or if they are not able get returns on investment in R&D. Acemoglu & Pischke (1999) further show that government interventions in skills development by providing training subsidies or setting up institutions to address this challenge on a broader scale are optimal.

Staritz *et al*. (2016) show how the Ethiopia and Mauritian governments invested strongly in education and training. The TVETs were expanded, universities were built with a focus on science and technology, and institutes for textile and fashion technology were also established. The objective for such action was to provide diploma and degree graduates in textile and garment engineering, and fashion designers for the top management positions in the textile/ apparel sector to facilitate their upgrading from the low end of the chain to high value-added activities. In addition, these governments further supported the recruitment of foreign supervisory and managerial personnel for the local firms where gaps existed. This was done through matching grant schemes, the facilitation of access to temporary work permits for technical personnel and expatriates, and lastly facilitating experience-sharing within firms through seminars and short-term training (Staritz *et al*., 2016). The collaboration between the institutions and industry becomes particularly important for the skills and knowledge that firms will need to upgrade into the high-value end of the GVC that cannot be created by the firm. Evidently this is missing in the case of the Ghanaian textile sector, and this needs to be addressed.

An UNCTAD Policy Review report posits that policies and institutions for science, technology and innovation in Ghana have not been updated and streamlined to keep up with general economic and human development goals. The report further indicates that "a key feature of Ghana's institutional landscape is the weak links and poor positive feedback between and among institutions, including the higher education and research institutes and the private sector" (UNCTAD, 2011, pg. 4). In a study by Jowi and Obamba (2014) it is noted that the Director General of Ghana's Council for Science Innovation Research noted that the main obstacle facing Ghana is a challenge with respect to inefficient and ineffective coordination and collaboration between the research institutions and tertiary educational institutions like universities and polytechnics, as well as between civil society organizations and industry.

Jowi and Obamba (2014) further note that current national development policies and programmes in Ghana focus on collaboration between science, technology and innovation, which are the bedrock of research and development and development planning. Nonetheless, the level of consistency and coherence in policies, institutions and the private sector still remains weak. In

Ghana, enrolment in most of the government-run TVET institutions has been decreasing or has remained stagnant over the last few years (Darvas & Palmer, 2012). Darvas and Palmer (2012) add that, in Ghana, the demand for training in some areas, like IT, construction and electrical, have increased, while it has declined for carpentry, dressmaking and hairdressing. It is therefore not surprising that the interviews with the apparel firms indicate that they have invested in skills development by themselves in order to adapt to modern technology.

Finance

The objective of this section was to find out how the firms financed their business, from what sources and how easy it was to access these funds.

Textiles

The firms indicated that they needed additional finance to invest in skills, product development and investment in machinery. Managers from textile firms T3 and T1 indicated that they needed additional finance to invest in newer technologies so they can be cost effective. They still use some old version of technology which is not cost effective to us. It consumes more power, time and its output is less (Textile firms T3 & T1, 1, 2017). However, in retrospect, the firms confirmed that government intervened to provide access to capital at a very low interest rate in assisting them to export their goods during the PSI era through the Export Development, Agriculture and Investment Fund (EDAIF). The fund was intended to support the firms in retooling and investing in skills and other operations that enhanced their competitiveness to export. The fund was transformed into the EXIM bank in 2015, and the EDAIF delegated the disbursement of funds to selected commercial banks in Ghana to receive applications and to do due diligence on the firms that wanted to access the grant.

The respondents pointed out that there was a conflict of interest because the bank promoted their products and frustrated the process needed to access the EDAIF facility. This included unnecessary delays and no clarity in the process, which deterred the companies from accessing the grant (Textile firms T3, 2017). The manager of apparel firm A1 also indicated they needed additional finance, and also confirmed the government's intervention through EDAIF and the challenges they faced, as indicated above. The manager indicated that applying for loans at the

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regular banks was also a great challenge, as it came with high interest rates and demand for collateral (Apparel firm A1).

In contrast, managers from Textile firm T2 and Apparel firm A3, who have multinational partnerships, did not see finance as much of a constraint because they received financial support from their parent companies. One of them noted "we do not source finance from the banks as our mother company provided such" (Textile firm T2, 1, 2017).

It is therefore apparent that firms without multinational linkages have liquidity and credit constraints, whilst a linkage with a multinational provides some form of financial cushioning. Access to formal finance by these firms (those without multinational linkages) through the banks is limited, which also means that their investment potential to ensure upgrading is hindered, thereby affecting their performance in GVCs. The EDAIF facility could have been modelled to allow easy access to finance by limiting the administrative procedures and by providing terms that suit small and medium enterprises in view of their strengths and weaknesses. Also, EDAIF could have used another vehicle that did not create room for a conflict of interest, as was indicated in the interviews indicated. It is also imperative that the governments show a strong political will to drive and ensure that interventions like the EDAIF facility achieves their set goal of assisting the firms with capital at a lower interest rate. These interventions are also helpful in that such loans are more flexible in the sense that they accommodate risk and firms pay back after returns on their investment, which is not so in the case of the banks. Either the government should strengthen the activities of EXIM bank to efficiently disburse the funds to firms that apply for it, or it should use a special-purpose vehicle that reduces the interest rate and is prepared to use loans as equity in the firms.

In the case of Ethiopia, textile apparel firms that meet the export targets and criteria specified by the government are given more incentives. The incentives include access to credit-guarantee schemes to address the issue of working capital, corporate tax holidays, foreign exchange retention schemes, voucher and duty drawback schemes and a bonded warehouse to support the firms that are exporting (Gebreeyesus, 2013). Although the Government of Ghana provided interventions and incentives as seen in Ethiopia to address access to finance, the challenge

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remained that there was a design and system failure in terms of the difficulty in accessing the support. None of the interventions were achieving their set objectives – from import duty subsidies on raw material to the EDAIF intervention – all had not been successful.

5.7   Policies

Industrial policies that are targeted at solving sector-specific issues in addition to general industrial concerns are essential for good firm performance. This section examines which policies the firms consider to be beneficial or an obstacle to their development.

Textiles

The textile firms stressed that a major contributor to their decline was the introduction of market liberalisation policies that opened the market for imports. As one respondent noted:

"Over the years, I see unfair competition from the Far East (China), their products are cheap, and at times they are smuggled in the country avoiding duties all together. And I blame this on government for liberalizing the market without stringent measures to avoid dumping which is happening now" (Textile firm T2, 1, 2017).

The firms also indicated that there were great information asymmetries between the government and the industry. It was suggested that:

"Though the government seems to be enacting policies, we see it done in ad hoc manner without collaboration with us. Some policies conflict [with] the overall objective of supporting us. For example, there are high import [duties] on raw material such us grey bath, with the exemption of cotton which has an import concession. There is only one textile spinning mill, which also produces under capacity. Definitely we need to supplement with imports of grey bath. What we perceive is the government's aim to protect the textile spinning mill" (Textile firms T2 & T3, 1, 2017).

Another respondent noted that: "I am not sure of what has become of the [PSI] initiative which was implemented by government in 2004. Incentives under this initiative over the years have eroded and I feel the government policy objectives are not clear." It appears most policies or

support from the government was not clear in its objectives and criteria, not easily accessible or was not well understood by the beneficiaries.

Apparel

For the apparel firms, import duties on raw materials (trade policy) in the quest to protect the textile manufacturers by discouraging imports also were a major challenge. Information asymmetry is also problematic for the sector. They indicated that it would be prudent for a disaggregation of these raw materials so that raw materials that are not produced locally have low duty rates. They also indicated that market liberalisation policies that allowed the imports of used clothing posed a major competition for them. They also bemoaned the fact that the ban on the import of used clothing was not being implemented, since it provided a great source of competition for them.

One apparel producer pointed to the fact that textile and garments were a priority under the National Export Strategy and featured prominently as a key sector in most government policies. However, the sector received little support in terms of specific policy interventions that would boost the growth of the sector.

Discussion

In the literature on growth in industrial development, national policies are pointed out as being key to shaping the competitiveness of firms. Apart from their general essence, these industrial policies also affect textile and apparel firms. This is concerned basically with the formulation and implementation of regulations and strategies that ensure the efficient use of resources to generate growth in the textile sector. Hence, strategies like creating an enabling environment to maximise the use of input factors, increase technological progress, process upgrading and production upgrading have been part of these strategies. These incentives prod firms to upgrade their products and processes, or assist them in acquiring raw materials at a cheaper price. Thus, these are policies that are tailored primarily to address specific challenges in the production sector to ensure competitiveness. Such policies can be instrumental in firms integrating into

GVCs. For example, incentives to reduce the cost of production (e.g. removing tariffs on utilities) can be very instrumental in a firm's integration the global production network.

In the case of Ghana, these policies have however not yielded much support to the textile/apparel industry. Owing to information asymmetries between the firms and the government, it is likely that interventions will not address the constraints to assure profit for investors in the firms (Pack & Saggi 2006). For example, one firm indicated that it was not clear about the objectives of the Presidential Special Initiatives.

In connection with the above, policies and strategies such as import duty concessions, AGOA, the EDAIF credit facility and the PSI have been implemented, but in an ad hoc manner, hence their impact is difficult to measure. The government seems to be implementing trade liberalisation and protection policies interchangeably for the textile firms, particularly in raw material imports, which in some way harms the apparel firms. Some protectionist policy measures can be adopted by the government because the textile and apparel firms are characterised by low barriers to entry and also are gateway industries to achieve rapid industrialisation. This is because their development can bring along crucial technology and knowledge that can facilitate easy entry into more skilled and technology-intensive sectors when the local firms build capabilities. This is consistent with the literature (Blonigen, 2011).

Viable interventions should be designed to address such constraints and find ways of credibly testing the impact of the prescribed interventions. For example,Chang (1993) suggests that upgrading within GVCs requires some "defiance" of comparative advantage, typically as encouraged by scholars like Lin and Chang (2009). Policy intervention for developing countries participating in GVCs should note that the GVC is an evolutionary process, hence policy should be dynamic in addressing constraints that evolve along the process.

In the case of Ethiopia, although the country may not have all the requirements on the checklist of the global buyers, some studies show that, what appears to single the country out for sourcing decisions is government's commitment to follow an active industrial policy that is very dynamic (Rodrick, 2008. Concerted efforts are made to drive industrialisation through an export-oriented strategy, focusing on priority sectors that include the textile/apparel firms, foreign and domestic

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investment attraction and capacity and skill development. The government of Ethiopia has outlined its commitment to supporting the textile and apparel sectors for a specific period of time (sunset clause). The support has included land, loans, foreign exchange, sector-specific institutes that support technological and skill development, in addition to other incentives specifically linked to exports to ensure competitiveness in the Ethiopian T&A value chain (Staritz *et al.*, 2016).

Generally, the Ethiopian government adopted an industrial policy that created a conducive environment for private sector development. The government invested largely in infrastructure, particularly in electricity and transport, education on all levels from primary through technical and vocational to university, as well as in health care (Hauge, 2015) . However, Ghana's industrial policy (Ministry of Trade and Industry, 2010), which sought to provide a similar intervention, was not implemented fully enough to make a relatively strong impact, as can be noted from the trends in the manufacturing value added as percentage of GDP in Chapter 3 and the reduction in exports of textiles after 2011, as seen in Figure 6.

These different scenarios are indicative of how differences in policies and government commitment shape and condition how countries use sector-specific industrial policies to develop industry. Other strategic interventions by the Ethiopian government to drive industrialisation through the textile/apparel sector using industrial policy include FDI attraction and GVC participation. This policy drove firms to export alongside domestic market protection. It made use of serviced industrial parks to attract investment, focused on skills and productivity through specific institutes, and also focused on the development of value chain linkages between the apparel, textile and cotton sectors.

5.8 Infrastructure

In this section, questions are raised to ascertain from the firms whether the current infrastructure contributes positively to building their capabilities or impedes their general performance

Textiles

Based on the information, most of the respondents indicated that high costs and the unreliability of the electricity and water supply, poor road networks and high transportation costs, inadequate storage facilities and factory space are major constraints. It emerged that the high cost of electricity contributed to the costs of production. The textiles firms that tried to penetrate the ECOWAS market amidst these challenges indicated that the roads were bad and firms were delayed on the road more than planned, incurring additional costs. It also emerged that textile firms had to invest in water recycling since the water supply was not consistent.

Both textile firms T2 and T3 indicated that;

> "Power outages and inconsistent water supply are so frequent, and these have necessitated the provision of a backup generator and a recycling water plant, which increased production cost. There are times some batches being printed are spoilt and the need to recalibrate the machines, which all contribute to long time and expected output cut down. Also, fuel is expensive, which definitely adds onto cost in printing about one million yards per a day" (Textile firms T2 & T3, 1, 2017).

Apparel

With regard to apparel firms, some of the respondent indicated that production was delayed because of the unreliability of power where they could not afford a generator (Apparel firms A2 & A3, 1, 2017). "High infrastructure rent charges also contributed to the production cost of the apparel industries. Further, inefficiencies in freight services had delayed supply for apparel orders to the U.S. market, which is of disadvantage, knowing that the fashion trend now treats apparel as a perishable good. Hence, it is a time-bound product" (Apparel firms A3, 12, 2016).

Discussion

Firm-level capabilities can facilitate developing countries' participation in GVC. Hence, infrastructure investments that will lead the firms to be effective are demanded due to their geographic landscape and location (Chaudhri, 2001, 2001; Kessides, 1996). Firms' participation in the global production network demands better connectivity through efficient road networks,

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modern air/land port facilities and rail. For instance, an efficient port where intermediate inputs can cross in and out of the borders at a lower custom and duty fee is important.

Affordable and reliable electricity is a critical basic requirement for a firm's competitiveness in participating in GVCs. The reverse appears to be the current situation in Ghana, with its poor infrastructure.

The major contributors to the high trading cost in Ghana the high cost and inefficiencies in transport, taxes, logistics and customs procedures and duties. A report by UNCTAD (2001/2002) shows that such inefficiencies in infrastructure account for the poor performance of export firms participating in GVCs. This is because the infrastructure may not support the transfer of information and communication technologies in order to facilitate activities between the developing country and the global market.

Additionally, an empirical analysis on bilateral trade by Limao & Venables (2001), using different sets of data to investigate the dependence of transport cost on geography and infrastructure, indicates that relatively low levels of trade flow into most African countries such as Ghana are essentially due to poor infrastructure. The World Bank enterprise survey (World Bank Group, 2005) indicates that firms that consider transportation as a major constraint in Ghana increased from 17.6% to 22% from 2007 to 2013, while firms identifying electricity as a major constraint reduced from 86% to about 61%, and the percentage of firms owning a generator increased from 26.6% to about 52% from 2007 to 2013. This is an indication of firms resorting to the use of generators to solve their energy needs and not relying on electricity generation by government, which might be cheaper.

Kessides (1996) and Easterly and Levine (1997) also showed that the character and availability of infrastructure influences the marginal productivity of private capital. Good infrastructure reduces the cost of production and affects the quality of service in international trade, which in turn determines firms' competitiveness in the export markets. It can be inferred that the textile sector in Ghana stands a chance to benefit more from the participation in GVCs if government raises its supply capacity by investing in infrastructure.

On the other hand, trade facilitation measures to reduce red tape procedures at the ports are also noted to deepen the industries' regional and global connectivity in the value chains. Trade facilitation measures can include establishing a single window for customs clearance, reducing tariffs and improving logistical services. These factors will contribute to the ability of the Ghanaian textile sector to upgrade from the lower ends to the higher ends of the value chain to increase profitability. If tariffs are high on capital goods such as technology, they will rather push the sector to engage in labour-intensive activities such as CMT, for which less skill is required. Poor infrastructure is a local constraint that contributes to the textile sector's non-performance in the GVC.

The government of Ethiopia, on the other hand, besides influencing the allocation of resource to the textile/apparel industry, further engages in providing support services. These include state-owned logistics companies like Ethiopian Airlines and shipping lines, maritime and dry port services, and state transport companies providing trucks to supplement the railway lines. These services are provided at a cost-effective price that supports the exporting firms to cut down their costs (Van der Pols, 2015). Furthermore, the government has plans to establish import supply industries to supplement and address the challenge of access to inputs. Staritz *et al* (2016.) note amongst the duties of this industry are to serve and act as a wholesaler through either producing inputs locally or by exporting to support the textile/apparel sector.

5.9 Membership of Business Organisations

This section examines the involvement and roles of current business organisation in contributing to the growth of the textile/apparel sector. It explores assistance to the firms to promote growth.

Textiles

Based on the interview data, the respondents from the textile firms confirmed that they are members of the Association of Ghana Industries (AGI), but they said there were few or no backward and forward linkages between the different industries in Ghana. In the questionnaire, respondents from the textile firms also indicated few interactions or collaborations with other firms. Aside from championing for their concerns, the business organisations could have been

instrumental in establishing support services, and assisting in information sharing among the firms.

Apparel

The apparel firms shared similar concerns to the textile firms. They indicated that there was unhealthy competition between them, which hindered their collaboration and sharing of knowledge or inputs.

Discussion

The formation of efficient producer associations facilitates horizontal coordination amongst producers. This does not only present opportunities to reach economies of scale, but also provides chances for value addition to domestic products. Vertical coordination and collaboration are to facilitated through membership of product associations and interaction with other actors in the value chains. This will assist to establish linkages with upstream producers, through which information can be shared to find synergies to improve the performance of the whole chain. If the Ghanaian textile association engages in such activities, it could lead to diversification of the sector by reinforcing the domestic linkages, thereby helping the textile industry.

Because of the informal nature of the Ghanaian apparel firms, membership of an organisation is critical to ensure the sustainable inclusion of the small producers in the value chains to achieve economies of scale. Fernandez-Stark *et al*. (2011) agrees and asserts that coordination and collaboration amongst chain stakeholders is crucial for countries' performance in the value chain and to upgrade their activities.

Value chain stakeholders comprise actors that play a role in the development of the textile sector, namely business associations, government agencies, finance, training and regulatory institutions, export-promoting agencies, producers, input suppliers, intermediaries and providers of industry support services. In Ghana, there is no effective collaboration between the relevant stakeholders mentioned. Hence there is no efficient promotion of public–private dialogues or alliances to resolve the information asymmetries in the sector. The training institutions are also not well informed of the skills needed for the upstream and downstream value chains. Neither is the

upstream chain effective in providing the required input to the downstream chains. An effective business organisation could have engineered these alliances, which would have provided the platform to share the challenges and opportunities of the sector. A better understanding of the challenges and opportunities would help to enact a better sectoral development strategy to allow for the industry's advancement at the local and national levels. While collaboration between firms to promote dialogue with government to influence policy is important, it is necessary to underscore the fact that these associations may have the tendency to collude to control prices. It is therefore important that competition laws are enacted to exert a certain level of discipline.

A study of the upgrading trajectory of Albanian's textile/footwear industrial sector by Pici (2016) emphasises the importance of business associations for firms' development. It revealed that, in upgrading from CMT to higher ends of the chain, ODM/OBM manufacturers facilitated the formation of the Chamber of Fashion and the Chamber of Albanian Textile Producers to address information asymmetries. This need was the result of the acknowledgement by producers that they needed to strengthen the backward and forward linkages to facilitate upgrading. The study, however, highlights inefficiency in the activities of the association that impeded the achievement of the set goal. The industry thus relied heavily on imported raw material, which is a major hindrance to upgrading by the textile sector. To address this challenge, the factors identified as important for upgrading to the high end of the value chain included membership of a vibrant business organization and efficient public–private coordination. Membership of an effective business organisation facilitates the coordination of the key stakeholders that are crucial for a country's beneficial participation in global value chains.

6 CONCLUSION

The evolution of the Ghana textile and garment industry has gone from being a nation builder to a forgotten cornerstone. The overview of the industry indicates that the most productive years of the sector – measured in increase in exports – were those that saw a shift in the focus of government policy to develop and protect the local industry. The early 1960s and the PSI era are examples of these years. As Quartey (2006) indicates, the decline in the textile and apparel industry in Ghana is due to external and internal challenges. This study agrees with the various literature that asserts that local factors are important in determining firm performance. In addition to the influence of global buyers, local factors also play an important role in influencing a firm's ability to integrate into the GVC.

While Ghana's performance in the sector continues to decline, countries like Ethiopia and Mauritius have employed various strategies to address these local constraints, thereby harnessing the gains from the Textile /apparel sub sector's. In other words, both countries have grown in terms of productive capacity and technology, making them attractive and hence integrated conveniently into the textile and apparel GVC.

It is evident from the study that local factors are important when considering integrating into the GVC. The study therefore explored the factors that influence the performance of the Ghana textile and garment industry and its integration into the GVC, using value chain theory. The study confirms that the support of lead firms (or global buyers) and local support and governance systems are important in improving the performance of the sector and facilitating its upgrading in the GVC.

The study identified several local constraints, which include weak institutions, a lack of government support for capacity building, a lack of financial support, weak backward and forward linkages within the textile and apparel sector, information asymmetries – causing a mismatch in the supply of skills, poor infrastructure and the lack of institutionalisation of product and process quality certifications.

The study further found that access to inputs is critical for both textile and garment firms. The inability of textile firms to produce the required fabrics in terms of quantity and quality

specifications is an enormous strain on local garment producers. This weak linkage, and the fact that specifications are determined by global buyers, put an enormous strain on garment producers. The study concludes that access to inputs is a critical constraint for Ghanaian textile and apparel firms and greatly affects their performance.

With respect to market access, the study concludes that market access requirements like technical barriers to trade and rules of origin are burdening textile and garment manufacturers. To take advantage of the various agreements, it is important to build the capacity of local firms, taking into consideration demands by the lead firms that drive global value chains. This is also linked to an effective governance structure that provides strong institutions and leadership in the industry.

Also, standards and certification systems for the textile industry were underdeveloped and this has had a negative effect on improving quality and accessing international markets and GVCs. There is a general lack of capacity within the firms with respect to meeting the requirements of global buyers, therefore local firms seek support from external expertise, which adds to the cost of production. The study found out that firms relied mostly on the standard requirements of buyers and not on national standards. It is therefore imperative for national standards for textiles to be aligned with international standards.

Through the interviews, the study found that infrastructure was also a major constraint for textile and apparel firms and increased their production costs. Key among these constraints are the provision of electricity and the lack of efficient port facilities. These inefficient port facilities lead to delays in exports reaching their destination markets on time, and a delay in the clearance of imported raw material. The study found that Ethiopia had managed this constraint by managing the allocation of resources to the industry and providing direct support services to firms. These interventions were necessary to spur growth in the subsector.

While changes in financial systems and models generally are driven by non-financial developments (Easterly & Levine, 1997), the financial sector in Ghana has not changed with the changing environment of the textile and apparel global value chains. Financing continues to be a major constraint for Ghanaian firms. The study concludes that facilitating joint ventures with global firms can lead to improved financing for local firms. However, these ventures are also

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predicated on the other factors discussed in this study. It is clear that targeted industrial, trade and investment policies, as employed by countries like Mauritius and Ethiopia, are imperative for dealing structurally with these constraints, including financing, technology, infrastructure and utilities.

In exploring the governance structure of firms as contributing to firm performance and aiding in the firms' quest to integrate into the GVC, the study found that firms that were linked to global buyers had access to certain support services that were absent from firms without these linkages. Firms that were linked to international production chains had access to certain terms of financing and technology, in addition to having a ready market. The study therefore concludes that a governance structure that encourages partnerships with global chains or buyers is imperative for firm performance and GVC integration.

The study also found that some policies that were implemented in the past, like the PSI, might have led to marginal growth in the sector, although their implementation was not sustained. The study also found that certain trade policies that led to the liberalisation of the subsector encouraged the influx of cheap fabrics and used clothing that competed with the local industry. Also, there was a level of information asymmetry, where firms were not aware of certain government policies. The study therefore concludes that improving public–private dialogue and implementing sector-specific policies in a sustained manner would go a long way to improving performance and the business climate and, most importantly, help firms to integrate into the GVC. The study found that countries like Mauritius, Ethiopia and Pakistan had used these sector-specific polies to grow their textile and garments subsector.

With regard to the importance of participation in efficient business associations, the study found that, while firms belonged to the AGI, they were not maximising benefits through effective collaboration and establishing a common voice to engage government in providing the needed support for the subsector. The study found that Albanian firms had used business associations as vehicles to enable them to upgrade and have access to the larger EU market. The weak nature of collaboration between Ghanaian firms should therefore be strengthened to aid in the exchange of ideas and provide a platform for engaging with government.

In conclusion, these factors impede the growth of the sector and lead to a slow death, as it makes the sector unattractive to global players. Hence, to effectively position the sector appropriately in the global value chain, firm performance and competitiveness need to be prioritised in any policy intervention and in the design of support mechanisms.

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APPENDIX 1

INTERVIEW QUESTIONS - TEXTILE PRODUCERS

Contact Information Interviewer

Date of interview

Firm Name

Principal product or service

No. of employees

Owner (or contact)

Legal status

Address

Telephone

Email

Market Access, Trends, and Governance

1. What do you see as your main needs/opportunities in accessing markets?

2. To whom do you sell your product or service (large firms, small firms, wholesalers, exporters, retailers, direct to consumers, etc.)? What percentage goes to each?

3. Describe the relationships you have with these buyers (who determines what to produce, product specifications, prices, and amount purchased?).

4. What is the ownership structure of your company (local, MNE or joint venture)?

5. How do you promote and market your products/services?

6. How strong is the market for your products/services right now and what trends do you see?

7. Are some customer groups better than others in terms of sales and revenue growth? Which ones?

8. Do you ever collaborate with other firms on promotion and/or marketing?

9. Who are your major competitors?

Standards and Certification

1. What standards or certification requirements do your products need to conform to?

2. Who sets these standards and requirements?

3. Who helps you to conform to these standards and requirements?

4. Do you have any problems in this regard?

Technology / Product Development Have you moved to more sophisticated products in the past five years? Please elaborate.

1. Have you diversified your markets/buyers in the past five years?

2. Do you produce your own designs or get designs from customers, and which parts of your production line are outsourced?

3. What have you done recently to improve your products or services?

Have you invested in?

  a. Training
  b. Equipment
  c. Quality control
  d. Management and management practices
  e. Marketing
  f. Distribution
  g. Others

4. Is your current equipment and the required skills of your workers an impediment to your growth?

5. Do you plan to invest in any of the above in the near future? If not, what is preventing you from doing so?

Management/Organisation

1. In the area of organisation and management, what are your major needs/opportunities?

2. What functions do you subcontract/outsource?

3. Do you sometimes collaborate with other firms to produce and deliver customer orders?

4. Which aspects of your business do you intend to change in the next two years (machinery, equipment, computers, new products, marketing strategy, quality control, management system, worker skills, etc.)?

5. What management skills would you like to strengthen in order to grow your business?

Input

1. What are your major needs/opportunities in the areas of input cost, quality, and availability?

2. Who are your most important suppliers and what do you buy from each?

Finance

1. Where do you go when you need money for your business?

2. Do you get credit from input suppliers? What are the terms?

3. Do you get production financing from your buyers? What are the terms?

4. Do you have need for additional financing at the moment? If so, what would it be used for?

5. What sources (formal or informal) have you approached for loans, and what have been the key

problems, if any?

6. Other (repayment rates in the sector, risk management insurance, etc.)

Policy/Regulation

1. What government policies/regulations benefit your business (registrations, inspections, subsidies,

incentives, etc.)?

2. What government policies/regulations are obstacles to growing your business?

Infrastructure

1. What are the most important infrastructure constraints affecting your business's growth and profitability? (Road/transport conditions, telephone service, electric supply, crime/corruption, storage, etc.?)

2. What is your industry doing about these problems?

Membership of Business Organisations

1. Is your industry/trade sector represented by national or local business associations?

If so, please name them.

2. Are you a member? If not, why?

3. What are the primary functions and benefits of these associations?

4. What additional services should they provide?

Final Open-ended Question

5.   What do you think is the greatest challenge facing your industry today?

PART II

Additional Questions for Specific Sections of the Value Chain

Textile Manufacturers

I. Ginners

1)   What is your total annual textile production?

Production (kg)

2) What is your plant size? Please specify

3) Are you using the latest ginning technology?

      Yes: 1   ( )

      No: 2   ( )

If you coded 1 in Q 2, what technology are you employing and why? Please provide a brief statement.

……………………………………………………………………………………

……………………………………………………………………………………

If you coded 2 in Q 2, why aren't you employing the latest technology? Please provide a brief statement.

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

4) Do you use different technology for different types of cotton staples?

      Yes: 1   ( )

      No: 2   ( )

5) Has your unit cost of production increased over the past three years? Please indicate the percentage increase: 2014……2015. .... 2016……………….

6) Please indicate changes in income/profits for the past three years

2014	Decrease	Unchanged	Increased
2015	Decrease	Unchanged	Increased

2016	Decrease	Unchanged	Increased

7) Are you employing-energy efficient technology ?

       Yes: 1

       No: 2

8) Do you have subsidies or any support from the government?

Yes   1

No   2

If Yes, specify …………………………..

II. Spinners

1) What is your plant size? Please specify …………

2) Are you employing the latest technology?

       Yes: 1

       No: 2   ( )

If you coded 1 in Q 2, what technology are you employing and why? Please provide a brief statement.

……………………………………………………………………………………

……………………………………………………………………………………

If you coded 2 in Q 2, why aren't you employing the latest technology? Please provide a brief statement.

……………………………………………………………………………………

……………………………………………………………………………………

3) What is the annual order of cotton fibres for your spinning mill?

Types	Percentage of Total Order
Short Staple:	( )
Medium Staple:	( )
Long Staple:	( )
Extra Long Staple:	( )

4) Do you have your own waste-refinery system?

Yes: 1   ( )

No: 2   ( )

5) Are you employing energy-efficient technology in the manufacture of clothes?

Yes: 1

No: 2   ( )

6) Do you have subsidies or any support from the government?

Yes   1

No   2

If Yes, specify ………………………….

7) Has your unit cost of production increased over the past three years? Please indicate the percentage increase: 2014……2015. .... 2016……………….

8) Please indicate change in income/profits for the past three years

2014	Decrease	Unchanged	Increased
2015	Decrease	Unchanged	Increased

2016	Decrease	Unchanged	Increased

IV. Weavers & Knitters

1. What mechanisms do you use for weaving and knitting?

Power looms: 1

Hand looms: 2

2. If you are using power looms, are they technically efficient?

    Yes: 1

    No: 2

    Don't know   3

3. If you coded 1 in Q 2, why are they technically efficient? Please give a brief reason.

………………………………………………………………………………………

………………………………………………………………………………………

4. If you coded 2 in Q 2, why aren't they technically efficient? Please give a brief reason.

………………………………………………………………………………………

………………………………………………………………………………………

5. If you are using hand looms, are you planning to switch to power looms?

    Yes: 1

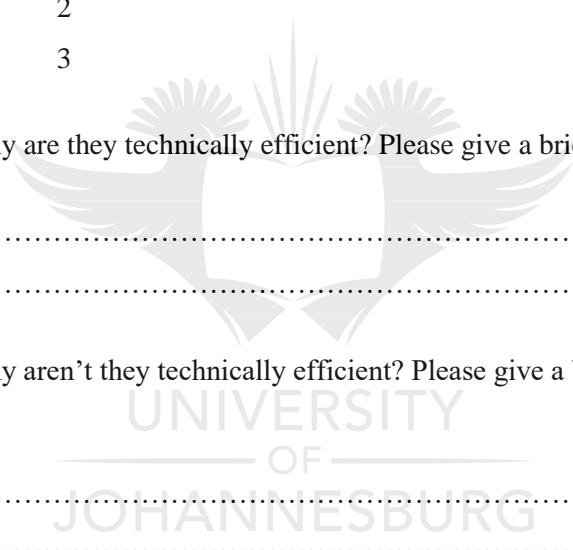   No: 2   ( )

6. Have you ever experienced shortages of cotton fibres during any of your years of plant operation?

    Yes: 1

    No: 2   ( )

7. Are you employing energy-efficient technology in the manufacture of clothes?

Yes: 1

No: 2   ( )

8. Do you have subsidies or any support from the government?

Yes   1

No   2

If Yes, specify ………………………….

9) Has your unit cost of production increased over the past three years? Please indicate the percentage increase: 2014……2015. .... 2016……………….

10) Please indicate changes in income/profits for the past three years

2014	Decrease	Unchanged	Increased
2015	Decrease	Unchanged	Increased
2016	Decrease	Unchanged	Increased

APPENDIX 2

INTERVIEW QUESTIONS – APPAREL PRODUCERS

Contact Information Interviewer

Date of interview

Firm Name

Principal product or service

No. of employees

Owner (or contact)

Legal status

Address

Telephone

Email

Market Access, Trends, and Governance

1. What do you see as your main needs/opportunities in accessing markets?

2. To whom do you sell your product or service (large firms, small firms, wholesalers, exporters, retailers, direct to consumers, etc.)? What percentage goes to each?

3. Describe the relationships you have with these buyers (who determines what to produce, product specifications, prices, and amount purchased?).

4. What is the ownership structure of your company (local, MNE or joint venture)

5. How do you promote and market your products/services?

6. How strong is the market for your products/services right now and what trends do you see?

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1. Have you diversified your markets/buyers in the past five years?

2. Do you produce your own designs or get designs from customers, and which parts of your production line are outsourced?

3. What have you done recently to improve your products or services?

Have you invested in ?

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b. Equipment
c. Quality control
d. Management and management practices
e. Marketing
f. Distribution
g. Others

4. Is your current equipment and the required skills of your workers an impediment to your growth?

5. Do you plan to invest in any of the above in the near future? If not, what is preventing you from doing so?

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1. In the area of organisation and management, what are your major needs/opportunities?

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3. Do you get production financing from your buyers? What are the terms?

4. Do you have need for additional financing at the moment? If so, what would it be used for?

5. What sources (formal or informal) have you approached for loans, and what have been the key

problems, if any?

6. Other (repayment rates in the sector, risk management insurance, etc.)

Policy/Regulation

1. What government policies/regulations benefit your business (registrations, inspections, subsidies,

incentives, etc.)?

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profitability? (Road/transport conditions, telephone service, electric supply, crime/corruption, storage,
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If so, please name them.

2. Are you a member? If not, why?

3. What are the primary functions and benefits of these associations?

4. What additional services should they provide?

Final Open-ended Question

5. What do you think is the greatest challenge facing your industry today