

UPGRADING IN THE GLOBAL FURNITURE
VALUE CHAIN
WHAT POSSIBILITIES FOR GUYANA?

Dianna DaSilva-Glasgow

PhD Student, University of the West Indies, St. Augustine Campus, Trinidad and Tobago

With research support from

Shameza David (MPA)

Lecturer, University of Guyana, Turkeyen Campus, Georgetown, Guyana

Mark Bynoe (PhD)

Managing Director, Development Policy and Management Consultants, Guyana

Marciano Glasgow (MSc)

Project Officer, Development Policy and Management Consultants, Guyana

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Abstract

The aim of this study is to support increased understanding of the global forestry-based furniture market in order to provide direction on how Guyana can upgrade its export of furniture. The study follows the global value chains framework approach where emphasis is placed on the structure and governance in the global market compared with the local market. The study finds a low degree of value creation through furniture manufacturing locally. Further, the local industry is generally fragmented with a great deal of informality and concentration of retailing. Globally SMEs predominate. In leading manufacturing countries however, these are organized into industrial clusters and may benefit from contract manufacturing through outsourcing by global lead firms such as IKEA. To take advantage of opportunities, Guyana will need to pursue all forms of upgrading on the basis of an industrial cluster strategy and foreign investment strategy through contract manufacturing. However, this would require building productive capacity *vis-à-vis* access to inputs, low cost energy, and finance; augmenting capacity for training; wider infrastructural development; and augmenting capacity of firms for standards compliance along the entire local value chain.

Keywords: Furniture, Upgrade, Guyana

1. Introduction

In spite of its large resource base Guyana faces a persistent manufacturing deficit. The country is also characterized by a narrow production and export structure that sees dependence on a few primary products. Diversification has been the call of a number of strategy documents aimed at increasing opportunities for economic growth. It is within this context that this study examines opportunities for value creation in the forestry-based furniture industry.

The forestry sector accounts for more than 14% of agriculture GDP, 5% of national GDP and 6% of total exports and employs 26,000 persons (FPDMC 2014). However, value creation is miniscule in comparison to the primary sector, particularly secondary value creation. This is linked to a number of weaknesses including the cost of energy and profitability in exporting logs. Primary value added products produced are wood products such as sawn lumber whereas; secondary value added products are furniture, joinery and other items. National statistics do not specifically report on furniture output, therefore presumably, this is captured under ‘other manufacturing’, which by itself, is a small sub-sector accounting for less than 5% of GDP.

Several national strategies are supportive of value creation in the forestry sector (National Competitiveness Strategy, Low Carbon Development Strategy (LCDS), National Development Strategy) recognizing the substantial increase in economic returns that can be derived forthwith. The support for value creation in the industry is linked substantially to the focus on sustainable forest management. National strategies however do not emphasize the mechanisms through which value creation can be attained.

The contribution of this study is that it works within a practical policy-based framework to illustrate how Guyana can build manufacturing capacity for value creation in the forestry sector as well as develop capacity for exports. This is done from the perspective of global value chains and industry clusters which are focused on developing local and global linkages, respectively, as a means of creating competitiveness.

From the perspective of global value chains the study examines the way the global market is structured and governed and how lead firms influence the ability of exporting firms from developing countries to be able to upgrade into high-value activities that will yield greater economic returns. Upgrading, according to Kaplinsky, Readman and Memedovic (2009, 25)

invariably means “moving out of materials-transforming links in the chain into, or to complement these operations with, more knowledge-intensive activities in design, branding and marketing and the control of logistics”

The study uses a combination of primary and secondary data. Secondary data was obtained mainly through annual reports of leading furniture companies globally, and compilation and analysis of relevant published statistics, along with other industry and policy documents. Secondary data was used mainly for the global market analysis. Primary data was collected through interviews with relevant public and private stakeholders in the forestry and furniture manufacturing sectors.

The key findings of the study is that participating in global markets on the basis of price or quantity is a viable strategy for Guyana. The study therefore supports product upgrading by focusing on design-intensive products. This is to be supported on a cluster-based strategy for manufacturing and contract manufacturing strategy for exports.

The rest of the paper is structured as follows; the next section briefly explain defines global value chains (GVCs) and upgrading; the section that follows gives an overview of the methodology used for the paper; this is followed by a brief discussion of the structure of the forestry-based GVC; and then a highlight of key trends in the global market. Thereafter the paper examines the structure of the local industry, examines Guyana’s current participation in the global market and makes recommendations for upgrading followed by a discussion of strategies to achieve upgrading. The paper closes with conclusion and policy recommendations.

2. Understanding GVCs and Upgrading

“The value chain describes the full range of activities that firms and workers perform to bring a product from its conception to end use and beyond. This includes activities such as design, production, marketing, distribution and support to the final consumer. The activities that comprise a value chain can be contained within a single firm or divided among different firms (globalvaluechains.org, 2011) (in Gereffi and Fernandez-Stark 2011, 4).

Gereffi and Fernandez-Stark (2011) point to the fact that the global economy *vis-à-vis* production and trade, is increasingly being structured around value chains, leading to what are described as Global Value Chains (GVC). GVCs according to UNCTAD (2013) refers to the “international production networks of firms investing in productive assets worldwide and trading inputs and outputs in cross-border value chains of various degrees of complexity. Such value chains (intra-firm or inter-firm, regional or global in nature) are shaped by multinational firms and account for some 80% of global trade” (UNCTAD 2013, iii).

Developing countries have not escaped this phenomenon. According to UNCTAD (2013, iii) “developing country share in global value added trade increased from 20% in 1990 to 30% in 2000 to over 40% today.”

GVCs seek to provide a holistic view of an industry by examining how the industry is structured globally, who are the leading actors and how they govern business activities. Understanding these factors is critical to understanding how countries can successfully participate in the global economy (Gereffi and Fernandez-Stark 2011).

Gereffi (1999) and Humphrey & Schmitz (2002) pioneered the concept of upgrading to describe how countries can move one from stage to another in a GVC and therefore change their capacity for income and employment through trade.

Two schools of thought describe how upgrading takes place; the analysis of core competences; and the analysis of dynamic capabilities. The literature on core competences emphasize that firms innovate on the basis of concentrating on those attributes that allow them to distinguish themselves from other firms because they are rare and are difficult to imitate; while at the same time providing value to customers. The literature on dynamic capabilities argue that firms should have the capacity to learn and reconfigure their capacity to access competences (Kaplinsky, Readman and Memedovic 2009).

These schools of thought emphasize firm-level innovation. The innovation of the concept of value chain is that it shows how upgrading can be achieved on a systemic basis or where large groups of firms are linked together (*Ibid* 2009). Value chains show how competitiveness is affected not only by the firm but also by the actions of its suppliers and buyers (*Ibid* 2009). It also looks at the role that lead firms play in enhancing systemic chain competitiveness (*Ibid* 2009). According to Humphrey and Schmitz (2002), GVCs emphasize cross-border linkages between firms in global production and distribution systems rather than local linkages.

Upgrading essentially means to “make better products, make them more efficiently, or move into more skilled activities” (Humphrey and Schmitz 2002, 1017). Bernhardt and Pollak (2015) argue that upgrading is evidenced by increased export market share and increased export unit values relative to the average at the industry level.

Humphrey and Schmitz (2002) in (Bernhardt and Pollak 2015, 4) identified four forms of economic upgrading:

- i) “process upgrading (increasing efficiency through the reorganization of production or introduction of new technologies),
- ii) product upgrading (the move towards more sophisticated or higher-quality product lines)

- iii) functional upgrading (increasing the range of functions performed or changing the mix of activities towards higher value tasks),
- iv) inter-chain upgrading (capitalizing on capabilities acquired in one chain to enter another, technologically more advanced chain)."

There is a nexus between the GVC and industrial policy literature based on clusters; both emphasize systemic competitiveness. While GVC emphasize global linkages between suppliers and buyers, clusters emphasize local linkages among producers. Clusters help to improve the individual and collective efficiency of firms in an industry (Bernhardt and Pollak 2015). It is a particularly useful strategy to help small firms to be able to access global markets and is common in several industries in various countries.

3. Methodology and Data

The study follows the global value chains framework approach to understanding the global market and identifying how Guyana can upgrade its exports of forestry-based furniture. It follows a step-by-step analytic framework developed by the Duke University Centre for Globalization and Global Governance¹ which requires:

- Outlining the input/output structure for the industry at the global and local levels,
- Conducting a geographic scope for the main segments along the chain,
- Assessing how the global industry is organized and governed,
- Outlining the policy and institutional framework for management of the local industry
- Understanding where the industry currently operates in the global market and outlining upgrading trajectories.

¹¹ See also Gereffi and Fernandez-Stark (2011)

The study uses a combination of primary and secondary data. Secondary data were obtained through annual reports of leading furniture companies globally, and compilation and analysis of relevant published statistics, along with other industry and policy documents. Other sources consulted include; economic magazines, newspapers and websites of firms and institutions. Secondary data were used mainly for the global market analysis. Primary data were collected through interviews using a structured questionnaire with 17 public and private stakeholders in the forestry and furniture manufacturing sectors in Guyana.

Secondary and primary data were combined to conduct a SWOT analysis of the furniture manufacturing industry in Guyana.

4. Input Output structure of the furniture global value chain

Figure 1 shows the input output structure for the global value chain for forestry-based furniture. It maps the various stages involved in the production of furniture from production of the primary material to distribution to consumers. Each stage represents a different business segment on the global market. Six stages are identified in the map: Forestry, Sawmilling, Lumber Dealing, Furniture Manufacturing, Marketing & Distribution and Recycling.

Timber (logs) and non-timber forest products (NTFPs) are the main outputs at the forestry stage. Logs may be exported in the primary form or may be transformed into lumber (sawn timber), dressed and undressed, wood and wood by-products such as multi-fiber density boards and plywood, chipboard, particleboard, fiberboard and cement board. Because of the utility of forest ecosystems, sustainable use of forest resources is a critical concern globally. Consequently, national and international guidelines and certification schemes exist to govern the industry. At the global level, the Forest Stewardship Council (FSC) certification scheme is the

most popular sustainable harvesting certification scheme. Wood products derived from sustainably harvested wood may also be recognized as such through the “Chain of Custody” (CoC) Certificate (EC 2004).

Furniture manufacturing is broken down into product groupings that are structured around two dimensions: 1) the materials used in production and; 2) the end uses for which the products are designed. Based on raw materials, furniture would include wood (soft and hardwood), metal, plastic, upholstered and furniture of other types including rattan, bamboo, liane and cane. Based on end use (HS 2007 classification system), wooden furniture market segments generally include; bedroom (HS 940350), kitchen (940340), office (940330), and other furniture (940360) which may include outdoor furniture.

A distinction can also be made between market niches including craft and mass-produced items, high volume, price-sensitive, design-intensive and brand intensive (UNIDO 2003).

With the advent of technology, production time has reduced, mass production has therefore become a viable manufacturing strategy. This has given rise to flat-pack or ready-to-assemble furniture (CEPS 2014). Mass-produced flat-pack furniture are in the low- to medium-price markets because it has enabled what would have otherwise been a bulky product, to be shipped cheaply. Flat-pack furniture also reduces the risk of damage in storage and transportation (*ibid* 2014.). Mainly medium to large sized firms, with vertically integrated operations, are involved in flat pack furniture due to the investments required in machinery, equipment and automation (CEPS 2014)

Firms undertake either wholesale or retail sale to other businesses or to final consumers such as households and institutions. With respect to the latter, distribution can occur mainly through: multi-chain stores, independent and franchised stores, department stores and mass

merchandisers and online and auction websites (Herman Miller 2014; CEPS 2014). Firms may also provide after-sales support services, such as customer support that can give them a competitive edge in attracting customers (UNIDO 2003).

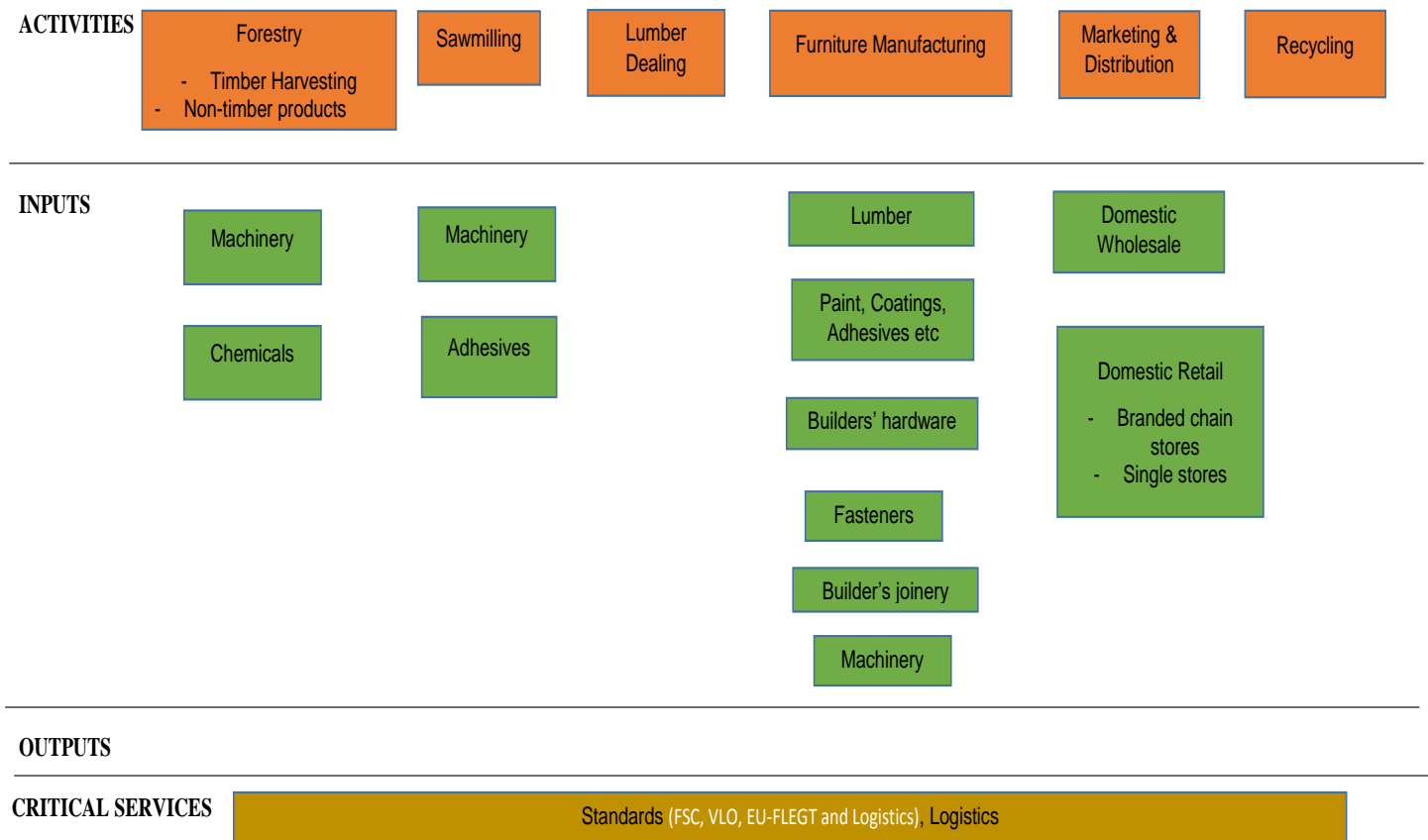


Figure 1: Map of Global Value Chain for forestry-based furniture

Source: Authors

5. Overview of Global Market for Furniture

5.1 Global furniture trade

Based on UNCOMTRADE data, the global export of wooden furniture reached US\$42,475 Mn in 2014 while import was US\$26,306 Mn. This includes office, kitchen, bedroom

and other furniture. High income countries such as the US, EU and Japan are the global leaders with respect to wooden furniture trade. Noteworthy, more than one-third of all wooden furniture traded globally is imported by the United States and Germany (CEPS 2014). In 2014, this was equivalent to about 54% not including rattan furniture. In 2014, the US was the leading importer in all segments of the wooden furniture industry (see **table 1**). Imports, in 2013, accounted for 9% of the kitchen furniture market in the US (ABTV, 2013).

	Value of total exports (US\$m)	Top 5 exporters	Value of exports (US\$m)	Value of total imports (US\$m)	Top 5 importers	Value of imports (US\$m)
940330- OFFICE FURNITURE, WOODEN NES	4,200	China Canada Italy Vietnam Germany	1031.0 396.6 355.9 350.6 309.3	3,260	USA Germany France UK Canada	902.13 184.59 160.49 134.63 132.6
940340- KITCHEN FURNITURE, WOODEN NES	6,349	Germany China Italy Denmark Canada	2059.8 1206.9 872.1 210.3 208.6	5,014	USA France Switzerland Netherlands Austria	1192.4 564.4 396.7 236 235.2
940350- BEDROOM FURNITURE, WOODEN NES	8,488	China Vietnam Germany Poland Malaysia	3901.8 1061 634 603.14 601.9	4384	USA UK Germany Canada France	3513.5 711.7 651.8 385.2 316.4
940360- FURNITURE, WOODEN, NES	23,438	China Italy Poland Germany Vietnam	7904.8 2538.5 2126.2 1504.6 1170.7	13,648	USA Germany UK France Japan	5528.5 2347.4 1534.8 1320.7 1310.8
940381- FURNITURE OF BAMBOO/RATTAN	127	China Indonesia Italy Vietnam Spain	57.3 32.8 16.5 8.3 7.3	122	USA UK Germany France Ethiopia	40.4 19.7 14.1 11.6 6.8
940390- FURNITURE PARTS, NES	11,168	China Italy Germany Poland Canada	3182.5 2255.1 1540.0 724.9 426.3	7,116	USA Germany UK France Japan	2612.5 1323.7 931.8 745.0 584.9

Source: Author based on UNCOMTRADE

More than half (54%) of trade takes place intra-regionally. For example, in the EU approximately 75 % of trade is intra-regional (CEPS 2014). In NAFTA this is about 28%. In the Asia and Pacific region intra-regional trade accounts for about 38% of total trade (*ibid* 2014).

While high income countries dominate global trade, the participation of low and middle income countries has been increasing over the years (*ibid* 2014). Notable countries in this regard are China, Vietnam, Malaysia and Poland. In *table 1* above, except for kitchen furniture, China was the leading exporter of all other categories of wooden furniture. The increased participation of developing countries is linked to outsourcing by firms in developed countries. This has led to the development of export oriented industries in these countries. For instance, Vietnam and Malaysia respectively export 90% and 80% of their production. The US is China's leading export market, with exports consisting mainly of flat pack furniture. In 2012 the US accounted for 39% of total exports from China (Yang *et al.* 2012).

China, in 2014, was also the leading exporter of bamboo and rattan furniture, followed by Indonesia with an export value of US\$32.8 Mn. In 2010 Indonesia was also the leading exporter of rattan and bamboo furniture with an export value of US\$250 Mn, followed by China, Vietnam and Philippines (Hieu 2010). The leading import markets were the US, UK, France and Japan and Switzerland.

About 25% (26.2% in 2014) of global furniture trade is in parts consequent to fragmentation of production. Global exports of furniture parts was worth US\$11,168 Mn in 2014. In 2014, the top five leading exporters were; China, Italy, Germany, Poland and Canada; whereas; the leading importers were the US, Germany, UK, France and Japan (see *table 1*)

Both Kaplinsky *et al.* (2003) and CSIL (2013) argue that furniture prices globally have been falling due to increased competition. In fact, CSIL (2013) notes that the excess manufacturing capacity, due to outsourcing, will put further downward pressure on prices.

5.2 Competitive Landscape

Across the major markets, furniture manufacturing generally reflects a highly fragmented structure with a predominance of SMEs co-existing alongside both local craft-based firms and large volume producers (CEPS 2014). The large number of players makes the industry a highly competitive one. In the US market for instance, the top four players account for about 19.4% of the industry with individual operators having less than 5% market share (IBISWorld 2015). In the EU around 85% of firms (of a total of 184,000) are micro enterprises (fewer than 10 employees) and another 12% are small (10 to 49 employees). Together they account for 85% of employment and 77% of value added in. In Italy there are over 20,000 manufacturing companies that are mainly SMEs (CEPS 2014).

Firms from developing countries usually concentrate on high-value, low-volume craft segments due to the lack of economies of scale (Kaplinsky *et al.* 2003; Xu, Cao and Hansen 2003); whereas, firms from developed countries concentrate on mass-produced items, high volume, price-sensitive, design-intensive and brand intensive (Kaplinsky *et al.* 2003). In some countries such as China, Malaysia and Italy, SMEs are organized into clusters as a means of overcoming cost disadvantages. They are therefore able to collectively produce high volumes.

5.2.1 Lead Firms and their Strategies

Table 2 shows some of the leading brand companies globally including Ikea, Herman Miller Inc., La-Z-boy, Legget & Platt and Steelcase. These are multi-store operators with

transnational operations. They produce mainly wooden and upholstered furniture for residential and institutional users and operate at both the luxury and low end segments of the market. Most are headquartered in developed countries (Europe and America)

Table 2- Leading brand companies globally

Manufacturer	HQ	Product type	Global Presence	Revenue (US\$)	No. of employees
Herman Miller Inc.	US	Office furniture, equipment and home furnishings	Worldwide: Europe, Canada, the Middle East, Latin America, South America and the Asia/Pacific region	1.6 billion	
IKEA	Netherlands	Designs and sells RTA furniture (such as beds, chairs and desks)	Owns and operates 351 stores in 46 countries in Europe Asia North America Oceania Africa	30.13 billion	139,000
La-Z-Boy	US	Upholstered home furniture	Retail residential outlets in the US and Canada. Manufactured and distributed under license in UK, Germany, Indonesia, Italy, Japan, Mexico, New Zealand, Turkey and South Africa.	2 billion	11,000
Leggett & Platt	US	Home Furnishings & Fixtures Industrial Materials	130 manufacturing facilities located in 18 countries	3.75 billion	19,000
Steelcase	US	Furniture, interior architecture, technology products for offices	80 locations in the Americas, Europe, Asia, Africa, and Australia. Sales through 650 independent and company-owned dealers	2.9 billion	11,000
Hunter Douglas	Netherlands	Manufacturer of window coverings and architectural products	Owns 167 companies with 68 manufacturing and 99 assembly plants and marketing organizations in more than 100 countries	2.45 billion	17,000
Natuzzi	Italy	Upholstery and Accessories	11 factories in Italy, China, Brazil, Romania. 274 Stores in major cities Athens, London, Paris, etc.	447.9 Mn	6,048
Samson Holding	China	Upholstered residential furniture	Wholesales furniture to department stores, retail chains, and independent retail stores in the US, Canada etc.		
Okamura Corporation	Japan	Office furniture, upholstered, metal etc.	25 subsidiaries and companies. Operates in China, Singapore, Japan	9,454 Mn yen	2,834

Sources: Authors' compilation based on data obtained from companies' website and Wikipedia

Table 3 seeks to specifically identify some of the leading wooden furniture manufacturers in leading furniture producing countries. These leading companies produce both residential and institutional furniture. They also have fairly large operations with sales and revenue exceeding US\$1 billion. For all the companies examined, noteworthy is their level of maturity and

experience. Most of the companies have been established in the early 1900s and therefore have a long history of operating in the industry.

Table 3- Top wooden furniture manufacturers in key manufacturing countries

Company	Year estab'ed	Product type	Sales/revenue (US\$)	No. of employees	Number of locations	Other Details
USA						
Steelcase Inc.	1912	Office/institutional furniture	2.9	11,000	80 locations in the Americas, Europe, Asia, Africa, and Australia	Sales through 650 independent & company-owned dealers
MASCO Corporation	1929	Residential furniture	7.8	32,500	More than 20 companies, 60 manufacturing facilities in the US, over 20 elsewhere	Started in 1929 but got into furniture in 1986. Operates in the high price market.
Herman Miller Inc.	1923	Office/institutional furniture	1.6		Europe, Canada, Middle East, Latin America, South America, Asia...	Dates back to Star Furniture company established in 1906
Vietnam						
AA Corporation	1993	Residential/institutional furniture	0.02	3000	3 factories across Vietnam	Brand names: Nha Xinh, AA Deco. Works with over 70 architects, engineers and designers
Binh Dinh Production, Investment & Import-Export...	1985	Indoor and outdoor furniture	0.041	5000	5 factories	Brand name: PISICO
Japan						
Oak Village	1974	Solid wood furniture				
Conde House	1968	High-end wooden residential & contract furniture				Operations span timber production to shipment of furniture. Also has 12 sales offices in major cities.
Germany						
Nolte Group	1955	Bedroom furniture				Operations span timber production to assembly in customers' homes.
Nobilis	1945	Kitchen Furniture		2000		Produces over 3000 kitchens daily
Italy						
Mattiazzi	1979	Residential furniture				Distributed by Herman Miller in the US
Natuzzi			0.4479	6,048	11 factories in Italy, China, Brazil, Romania. 274 Stores in major cities e.g. Athens, Paris, etc.	

Source: Authors' compilation based on information obtained from: <http://www.woodindesign.com/2012/12/04/top-10-european-designers/>; EPA, 1995; ASEAN-Japan Centre (2010); <http://www.condehouse.com/company/>; <http://www.nobilia.de/en/unternehmen/historie/>

5.2.1.1 *Key Competitiveness Strategies of Lead Firms*

The following are the strategies that lead firms use to enhance their competitiveness.

Vertically integrated operations: Lead firms have vertically integrated operations and coordinated supply chains from raw material to distribution. Operations may span several countries. For instance, the Nolte Group of Germany that produces wooden furniture controls the supply chain from timber production right through to assembly in customers' home. Companies may also have subsidiary companies providing support services.

Outsourcing of manufacturing: Outsourcing is an important trend among leading firms to cut costs and increase profitability. Firms outsource manufacturing while they concentrate on managerial competence, effective distribution and other high-value activities such as marketing, product design and customer support (CEPS 2014) (Kaplinsky, Readman and Memedovic 2009).

Concentrated buying in final markets: Within final markets there is concentration of buying. For instance, provides the example of a UK company that buys high-value garden furniture from Ghana (*iroko*), Vietnam (teak), China (teak), Eastern Europe (hybrid of wood and metal) (Kaplinsky, Readman and Memedovic 2009). The buyer designs, sources suppliers and whole/distributes furniture in Europe to garden centers and general furniture stores (*ibid* 2009).

Kaplinsky *et al.* (2003) identifies three categories of furniture buyers globally based on their degree of outsourcing:

- 1) *Multi-store retailers*; are national and international firms that may or may not sell branded products. These firms tend to purchase large quantities and to source directly from producers because cost and volume are critical. An example is IKEA which sources from 2,000 suppliers in 52 countries. Branded firms may design in-house and focus on product development.

- 2) Specialized buyers; are intermediaries and therefore buy from a large number of suppliers (as much as 1500), mainly wholesalers in several countries with onward-selling to less price-sensitive and more design conscious retailers. For instance, German Steinhoff² assembles and sells in Europe, furniture sourced from Asia.
- 3) Small scale retailers; with single or limited retail outlets buy small quantities typically from wholesalers in producing countries or import agents. They sell in design-conscious markets.

Most buyers use developing country suppliers but large retailer's source more than 85% of their supplies from middle and upper-income countries such as China, Vietnam and Malaysia (Kaplinsky *et al.* 2003). A number of factors influence their selection of suppliers including primarily; quality, location, standards, delivery capacity, volume capacity, design, manufacturing and finishing infrastructure, easy container shipping access and swift feeder transport (*ibid* 2003). For instance, in a study of furniture exports from South Africa, UK buyers ranked Ghana suppliers of garden furniture above South Africa, China and Vietnam suppliers on quality and delivery measures. Standards (and certification) are noteworthy in the selection of suppliers. Relevant standards in the industry include ISO 9000, labour standards (SA8000 of Social Accountability International) and environment standards- ISO14000 quality standard for processes, a wood-sector specific standard (Forestry Sustainability Council, FSC), which relates to environmental practices throughout the chain. Buyers may also consider child-labour provisions and environmental standards as minimum criteria for suppliers bidding for contracts (*ibid* 2003). FSC and ISO 9000 are of particular concern to specialized buyers. Multi-store

² See <http://www.steinhoffinternational.com/>

retailers consider all standards of equal importance. Small scale retailers are more concerned with FSC (*Ibid.* 2003).

Capacity building downstream: Global buyers, particularly multi-store retailers and specialized buyers, may provide support to manufacturing firms in order to allow them to increase their supply capacity. Support may include; providing training, finance to facilitate production expansion, assisting with the local supply chain and assistance for upgrades.

Process and product innovation: Leading companies have focused on product and process innovation (CSIL 2013; Kaplinsky, Readman and Memedovic 2009). The introduction of mass-produced (flat pack or ready to assemble) furniture, championed by IKEA (introduced in the 1960s) reflects an innovative practice that has increased the reach of the furniture industry globally and has reduced shipping costs. Ikea³ has also introduced automated furniture manufacturing and was the pioneer for the use of Medium-Density Fiberboard (MDF).

Process innovations have been introduced to enhance productivity and reduce waste such as Computer-numerically-controlled (CNC) woodworking machinery, Computer-aided design and manufacturing (CAD and CAM), and flexible manufacturing systems (FMS) (Kaplinsky, Readman and Memedovic 2009; Duke 2013)

Operational excellence: Firms also use various quality management systems that can improve productivity such as total quality management (TQM), statistical process control (SPC), business process reengineering (BPR), supply chain management (SCM), lean manufacturing, just-in-time (JIT) manufacturing, Kaizen (change for better), and green manufacturing practices. Herman Miller proclaims itself as one of the first companies to embrace the concept of lean

³ http://www.ikea.com/ms/en_JP/about-the-ikea-group/company-information/

manufacturing as a means of improving both product quality and production and operational efficiency. (Herman Miller 2014).

Retail presence: Because lead firms are less involved in manufacturing, retailing is more concentrated and is increasingly being dominated by chain stores. Ashley Furniture Industries sells furniture through two distribution channels: independent furniture dealers and more than 520 Ashley Furniture HomeStore⁴ retail furniture stores, which are independently owned and operated by licensees in the United States, Canada, Mexico, Central America, and Japan.

Design capacity: Lead firms augment their capacity to produce unique designs either through investment or by working with a network of outstanding designers, architects and engineers. For instance, Vietnamese AA Corporation⁵ works with over 70 architects, engineers and designers. French Heritage⁶, a famous European furniture brand known for its designs works only with professional designers to produce unique furniture pieces which are handcrafted. Knoll⁷ furniture manufacturers, based in the US sponsors scholarships and other activities to support modern architecture and design of furniture. The company has worked with over 130 designers of furniture. Vitra⁸, a Swiss family-owned furniture company works with internationally renowned furniture designers.

Human Resources: Firms that are design-driven work with outstanding designers. Firms that are innovation-driven invest in Research & Development and work with engineers. For instance, Kinwai⁹ has 10 to 50 R&D staff and 10-50 engineers. This suggests that firms hire the skills in the areas that they want to develop a competitive edge in the market.

⁴ <https://www.ashleyfurniturehomestore.com/>

⁵ <http://www.aacorporation.com/>

⁶ <http://www.frenchheritage.com/>

⁷ <http://www.knoll.com/>

⁸ <https://www.vitra.com/en-lp/home>

⁹ <http://www.kinwai.com.cn/getinfo.php?t=148>

6. Local value chain analysis

6.1 Deficits and gaps *vis-à-vis* GVC

Figure 2 is a replica of the global value chain represented in **figure 1**. However it is meant to show the generic value creation process for furniture manufacturing to illustrate the degree of value creation in Guyana. It shows that Guyana's participation is stronger at lower the lower stages where forestry takes place and primary value creation through sawmilling and lumber dealing. However, secondary value creation activities are minimal, reflected by the fading colour of the latter two stages of the chain. 90% of the activities within the chain are concentrated at the first three stages, compared to 10% for the other two stages (FPDMC 2014).

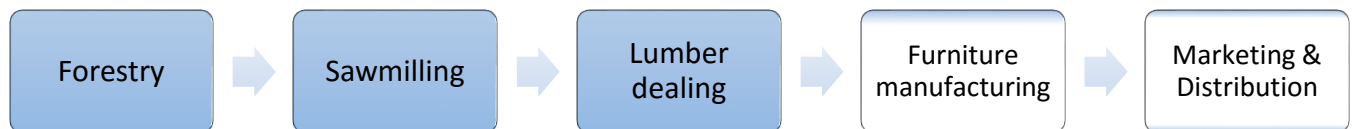


Figure 1: Furniture value chain

Source: Authors

More than 80% of the country's land mass is forested. This is equivalent to 18.3 million hectares of land (FPDMC 2014). Forestry is therefore a fairly large economic sector, accounting for approximately 3% of national GDP and 14% of agriculture GDP in 2014 (BoG 2014). The key outputs of the forestry industry are timber which include; logs, round wood (Poles Posts and Spars), Sawn wood, Split wood (Shingles and Paling Staves) and Fuelwood (Charcoal and Firewood). Annual timber production ranges from 370,000 m³ – 450,000 m³. Logs account for over 70% of total output, followed by sawn lumber, round wood and plywood. Non-timber forest products (NTFs) are also produced including: Wattles, Manicole Palm, Mangrove Bark and Latex (Balata). These are used to produce nibbi furniture (FPDMC 2014).

30-50% of output of logs are exported. Average exports of logs was 108,749 m³¹⁰ over the period 2006-2013 (FPDMC 2014). Wood products also constitute a significant export commodity. Barama Company Ltd. which is the largest wood products company accounting for over 30% of the country's timber exports, only wholesales about 1% of its output on the domestic market. Guyana's main export markets are in Asia/pacific for logs and undressed lumber; Latin America and the Caribbean for dressed lumber and split wood; North America for round wood such as piles and plywood (*ibid* 2014).

Furniture manufacturing is undertaken by a few large enterprises along with many small, largely informal, enterprise, described by the NDS (2000) as "bottom house" establishments. The main furniture manufacturers in the industry are: AH&L Kissoon/ Modern Industries Ltd., Melsha and Lyndill Furniture Manufacturers, Guy-America Furniture, ND&S Furniture and the Guyana Furniture Manufacturing Ltd.. The large producers tend to have vertically integrated operations from sawmilling to manufacturing, some as far back the chain as logging. A notable example is AH&L which internalizes every activity including kiln drying its own wood through its own solar power facility.

The distribution of finished furniture occurs on a number of levels: including national retail through chain stores such as Courts, ND&S Furniture Stores, Lucky Dollar and Singers; retail to individual consumers and institutional buyers such as government agencies and hospitals; export; and wholesale to other furniture stores (such as courts).

Furniture manufacturing serves mainly the domestic market. While wood products account for about 6% of exports, furniture account for less than 1%. While exports of wood range from of US\$40 Mn - US\$60 Mn (FPDMC 2014) exports of wooden, rattan and bamboo

¹⁰ Exports were about 50 % of output prior to the global economic crisis.

furniture, on average generate less than US\$1 Mn in export earnings (see *figure 3*), with export of kitchen furniture and other wooden furniture as the main export segments in 2014 (see *table 4* in the appendix). Further, over the period 2005- 2013 the furniture industry exhibited a consistent decline in exports, except for a peak in 2008 when exports reached US\$1.15 Mn (see *figure 3*). What is exported goes primarily to traditional markets in the US, EU and CARICOM (see *table 4* in the appendix).

Imports are higher than exports and have increased gradually since 2005 (see *figure 8*).

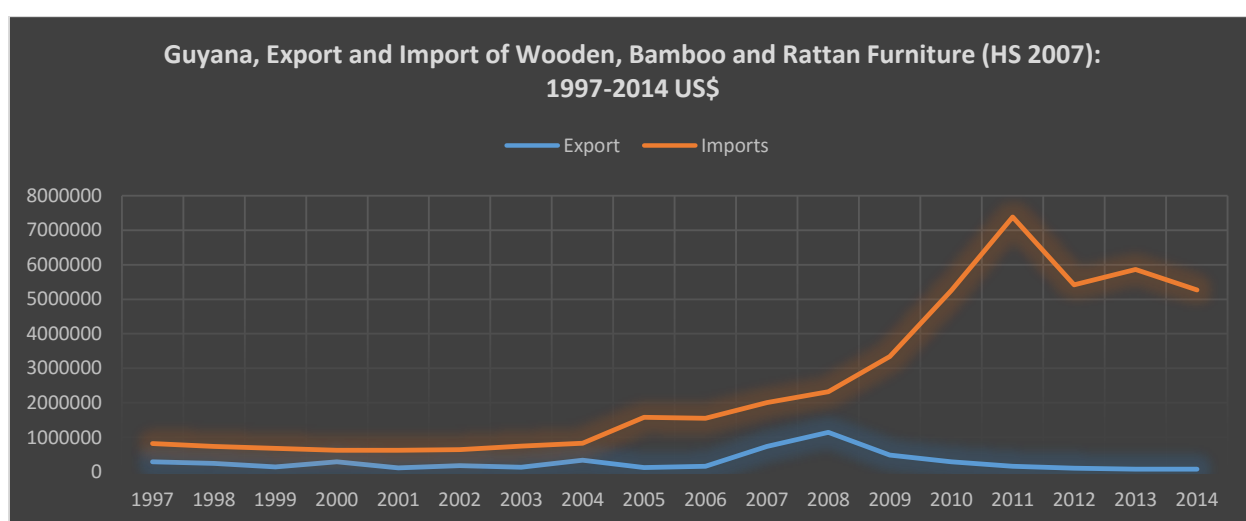


Figure 2: Exports of furniture, 2005-2013

Source: UNCOMTRADE based on codes; 940330, 940340, 940350, 940360, 940381, 940390

7. Upgrading in the Global Market

7.1 Strengths and opportunities for upgrading

Figure 4 below, adapted from UNIDO (2003) shows value addition in the forestry sector. As the level of value addition increases, so does the price for items, moving from US\$175/m³ for logs for instance, to US\$956/m³ for veneers.

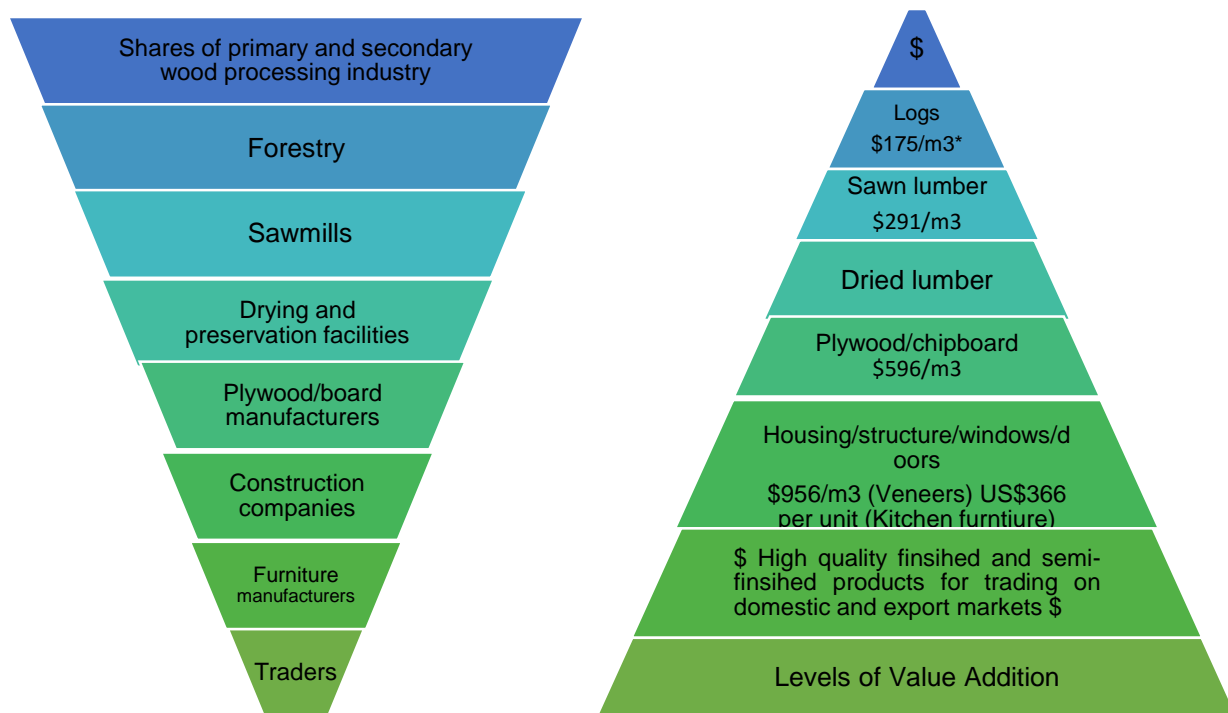


Figure 3: Value addition in the furniture industry

Source: adapted from UNIDO, 2003

* Average of prices for Greenheart, Purple Heart and Mora woods obtained from the FPDMC (2014)

This points to the potential for higher economic returns that Guyana can derive from engaging in high-value activities. Colombia, Philippines, Indonesia, Mauritius, Mexico, Slovenia, Czech Republic, India, Poland, China, Egypt, Vietnam, Romania and South Africa were able to upgrade economically in the wood furniture GVC (Bernhardt and Pollak 2015).

The projected continued growth in the wood and wood products sector including furniture, points to the opportunities for Guyana (CSIL 2013). According to the FAO (2007, 2) “under a conservative scenario wood and wood products trade in the international market will reach over US\$ 450 billion in 2020.” Growth in demand is linked to key factors that make it sustainable. Firstly, furniture demand shares a symbiotic relationship with the real estate market which is improving in the US. Secondly, Demand for furniture is income elastic. Therefore

consumers will purchase less when incomes are lower. This is reflected by the turnaround in global demand following improvements in the global economy (CSIL 2013b). Demand is also increasing in developing and emerging markets such as China (CEPS 2014). The largest growth in demand (8%) is expected to take place in China (CSIL, 2014). In Russia the office furniture market is estimated to grow at 10.08 % (CAGR) over the period 2013-2018.

Unlike large manufacturing markets such as China and Vietnam that offer scale, Guyana has the potential to compete on the basis of access to raw materials. China and Vietnam while they are large manufacturers rely significantly on imports to obtain raw materials. With its large forest coverage Guyana has a number of both wood and non-timber forest products that can be used for furniture making, the vast majority of which remain under used. Guyana can therefore carve out a niche for itself by focusing on wooden furniture and wooden furniture parts. While growth is taking place in all segments of furniture, UNIDO (2003) argues that wooden household furniture continues to be a lucrative segment in both the US and EU markets. In the EU demand is particularly for wooden non-kitchen furniture (CEPS 2014). There is also growth in demand for outdoor furniture (Kaplinsky, Readman and Memedovic 2009).

Guyana also has a number of strengths that can support upgrading into high-value activities. These are summarized below:

- Government support through fiscal and financial incentives from harvesting to manufacturing such as;
 - o “Exemption from customs duty of a wide range of forestry and sawmilling equipment-skidders, and saws, chain saws, saw blades etc.
 - o Exemption from customs duty on a wide range of wood working equipment-lathes, sanders, routers, saws
 - o Exemption from duties and taxes for items covered under an investment agreement.” (FPDMC, 2014)
- Labour is low-cost with vocational-level training in furniture

manufacturing available through the Government Technical Institute.

- A local framework of guidelines for sustainable management of timber harvesting that may be appealing to international buyers. The industry complies with international standards such as FSC, Chain of Custody and soon, EU-FLEGT. Further, Guyana has a low rate of deforestation (less than 0.08%) and currently only uses 40% of allowable timber harvesting quantities. Furniture manufacturers must comply with relevant Guyana National Bureau of Standards and Environmental Protection Agency regulations in their manufacturing process and are subject to biannual inspections to assess their conformity.
- Proximity and economic trading relationship with key import markets, including the US and EU.

7.2 Weaknesses and threats to upgrading

There are three significant threats to increasing value-creation *vis-à-vis* furniture and furniture parts. The first relates to the increased use of MDF wood in furniture production by leading companies globally. This is an attractive material because it makes furniture less bulky to export. **Secondly**, is the fact that globally, growth is faster among other furniture and upholstered furniture (CEPS 2014). Further, Dasmohapatra (2014) and ABTV (2013) make mention of shifting consumer tastes and preferences in favour of leather furniture, among other considerations.

Another threat is from the high exportation of raw wood from Guyana and the arrival of foreign companies not oriented towards value creation locally. As such, access to quality furniture grade wood is a challenge. There is also competition for logs with other industries such as construction. The furniture industry in fact, would be a smaller user of domestic timber and

would therefore have little influence over production. Also of concern is effective monitoring of timber harvesting to prevent harvesting of green lumber and illegal exportation of timber (Bulkan 2012).

Several other impediments to value creation exists, spanning the entire value chain, from access to raw materials right through to distribution and also including access to critical services. These are summarized below:

- Poor technology usage and obsolete equipment (NDS 2000). Generally, furniture manufacturing is a low-technology sector (UNIDO 2003). However in Guyana it remains largely labour- intensive (sanding, framing, assembling) with poor technology usage and obsolete equipment. Manufacturers use mainly basic machinery. One reason for this is the absence of a licensing body for operators of heavy duty machine. Further, current licensed operators of heavy duty machines are attracted to the gold industry because of higher commodity prices.
- Energy and electricity costs. While Guyana has recently discovered oil. In the interim, energy costs, reliable access to electricity, line losses, and administrative weaknesses in obtain electrical connections remain challenges. It takes 109 days to get an electrical connection (World Bank 2014).
- Access to loans and finance. While large companies have a line of credit and obtained loans from commercial banks for start-up; small companies rely on their own financial resources for start-up. This is in spite of the fact that in addition to the Institute of Private Enterprise Development (IPED), government has created micro financing schemes to improve access to financing such as the US\$10 Mn micro and small

enterprise development project currently being managed by the Small Business Bureau (Ministry of Tourism, Industry and Commerce n.d.).

- Pervasive informality (“bottom house workshops”). This may be a signal of insufficient oversight in the industry. It may also point to other weaknesses such as access to finance. Informality affects both legitimate and informal enterprises negatively. Informality means that there is under-representation of one fragment of the industry in the advocacy work of industry associations. It also affects access of businesses to services provided to legitimate business enterprises. Informal enterprises also work in less productive environments and may be unable to hire critical skilled labour needed. Legitimate business enterprises have also noted them as competitors perhaps because of their ability to offer more flexible prices for products.

- Taxes. This is reflective of a concern in the wider business community. In Guyana taxes payable by companies include: Corporation tax (30% for non-commercial companies and 40% for commercial companies), property tax (wealth tax) from 0.5 to 0.75% for property above G\$5M, Capital gains (20%), branch profits (20%), Value added tax (16%) (See PKF Guyana Tax Guide, 2013) (World Bank 2014). According to the World Bank Doing Business Index, for Latin America and the Caribbean tax rate on the profit of medium sized businesses is on average 20.7per cent. This is slightly higher in Guyana at around 21.3 %.

- Shipping logistics can affect the desire to export. Port Georgetown is the only port from which shipments can be made. Because of the small size of the port a limited number, and mainly small vessels can dock. This reduces the availability of

containerized units and increases the cost of shipping. The administrative process for exportation is also tedious and bureaucratic.

- No tertiary level training is provided for furniture manufacturing. This is quite unlike developed countries where it is possible to obtain degrees in furniture design and manufacturing.
- Absence of an industry-specific strategy for value creatino within the sector.

7.3 **Recommended upgrading trajectories**

There are four trajectories through which upgrading can take place: product, process, functional and end market upgrading (Gereffi 2005). These are supported by three upgrading strategies in the global furniture market (UNIDO 2003):

- Firstly, Original Equipment Manufacturing (OEM) where low-cost furniture and components are produced by high-speed machines (process upgrading). Furniture produced will be marketed in the low price segment of the industry.
- Secondly, Original Design Manufacturing (ODM). Where the focus is on product upgrading through design of original products. It is the strategy of leading exporters such as Malaysia and Thailand.
- Original brand manufacturing (OBM) where exporters move into new functions in the value chain through the development of their own brands. This strategy is in the high end of the market.

Upgrading in Guyana must be centered on producing hardwood furniture, wooden joinery products as well as rattan and vines or combining them to produce unique furniture pieces; as

well as focusing on higher-value species of wood such as Mahogany. As Kaplinsky *et al* (2003) noted in the case of South Africa, a first and important step in the upgrading trajectory is being able to concentrate on areas where firms have distinctive competences. Kaplinsky, Readman and Memedovic (2009) also note that wooden furniture is a resource-intensive industry which provides opportunities for many tropical countries where timber grows rapidly and cheaply. South Africa after losing IKEA in 2000 concentrated on using the Saligna (eucalyptus) species which had the advantage of being able to take colouring well and could be treated to look like just about any species of wood, including threatened wood (Kaplinsky *et al* 2003).

Ultimately, Guyana should not focus on standardized items driven by price competitiveness (OEM strategy) but rather, seek to position itself in a higher niche by producing more sophisticated products, especially in light of downward pressure on prices globally. Low price high-volume items are based on process upgrading. Countries from Asia, notably China but also Vietnam, Malaysia and Indonesia have used this strategy and would therefore be Guyana's competitors. Further, unless one has significant competitive advantage in this strategy, it is not sustainable. IKEA in 2000 moved out of South Africa for Eastern Europe and East Asia in search of lower prices (*ibid* 2009).

Craft-based and design-intensive products (ODM strategy) represent a higher-value activity than producing standardized items. This is precisely why global buyers provide assistance for only process capabilities and explicitly exclude the design sphere (*ibid* 2009). The example of South Africa shows the importance of not remaining focused at the bottom. South Africa "concentrated on the large batch production of standardized items, and therefore failed to develop the capacities to design and change their product portfolios" (*ibid* 2009, 15). An Egyptian furniture cluster (Domiatt) produce design and quality-intensive hand-made sitting-

room furniture (Kaplinsky, Readman and Memedovic (2009). Large firms generally allow manufacturers to design garden furniture (*ibid* 2009). However, manufacturers must be able to consistently generate new designs every year (*ibid* 2009). Garden furniture however, “provides little scope for novel design or for positional branding and quality” (*ibid* 2009, 29).

While the ODM strategy is a higher-value activity to OEM, the experience of some successful firms and countries show that they started with OEM before pursuing ODM. An example is Italian firm Mattiazzi¹¹ which worked as a subcontractor for other brands before moving on to developing their own brand. Malaysia as well. Malaysia has taken advantage of its wood supply and has shifted from producing general products to emphasizing its one uniquely designed furniture in the middle to high priced furniture category. Ghana also followed a similar strategy. Ghana during the 1980s produced furniture for several large household furniture brand-name manufacturers in the UK. By 1992 the company introduced its own product line of garden furniture under its own brand name, becoming a niche supplier of high quality FSC furniture and discontinued contract manufacturing. Its UK affiliate provided marketing and distribution service (Kaplinsky, Readman and Memedovic 2009)

Guyana also needs to upgrade its markets by consolidating its exports to take advantage of demand trends in its traditional export markets in the US that remain leading consumers globally as well as Brazil (an emerging market) and CARICOM. These markets are also in geographical proximity. The fact that more than 50% of global trade takes place within regions points to the role of trade policy in increasing market access. Guyana is party to a number of preferential trade agreements that support market access with its major trading partners including the UK, Canada, US and CARICOM. Given preferential access to CARICOM and geographical

¹¹<http://www.mattiazzi.eu/>

proximity, another leading paradigm in global trade, there is clearly under-exploitation of trade within CARICOM especially demand in the tourism industry, especially given Guyana's large forestry resources relative to other CARICOM countries. Further, in traditional markets such as the EU Guyana can take advantage of the fact that hardwood furniture accounts for a marginal share of domestic output coupled with the demand for design-intensive products and outdoor furniture.

7.4 Strategy mechanisms to support upgrading

UNCTAD (2013) argues that the benefits of GVCs will only be realized with prudent proactive policies including the "right overall development strategies." In this regard, two overall development strategies are being proposed; the first seeks to create local linkages while the second seeks to create global linkages.

7.4.1 Cluster-based industrial policy strategy

Achieving upgrading will best be achieved on the basis of export-oriented clusters driven by a value chain approach. This can serve to integrate all SMEs under one cloak so that a single manufacturing unit is essentially created that works towards achieving a common goal. This would allow for achieving vertical and horizontal efficiency (Kaplinsky *et al.* 2003) (Morris and Staritz 2014) *vis-à-vis* easier provision of critical services and easier redress to industry and chain-specific weaknesses (Kaplinsky *et al.* 2003). As an example, clusters can promote investment in common infrastructure such as Kiln drying facilities. Morris and Staritz (2014) note that clusters possess the range of services necessary to bring a product from raw materials to completion for the world market and are capable of innovation, as also supported by the case of Italian industrial districts.

Industrial clusters are present in a number of leading markets including China, South Africa, Italy and Malaysia. As a result of organizing into industrial furniture districts Malaysia was able to transform its export structure from primary commodities to value-added products to such an extent that it has witnessed growth of 20% in its furniture industry, with furniture becoming the leading sub-sector in the woods industry (Ratnasingam 2011). Further, the country has been able to withstand competitive pressure from cheaper nations in Asia (*ibid* 2011). China similarly organized its industry into clusters and has been able to see double digit growth in production and exports every year since the 1990s (at which time, the country was not even ranked among the top ten leading exporters of furniture (CSIL 2014).

7.4.2 Foreign Investment/ Contract Manufacturing Strategy

All of the countries that are leading producers of furniture have benefitted from foreign investment in the domestic market or have secured contract manufacturing arrangements with global buyers. This is supported by UNCTAD (2013, iii) which notes that “countries with a higher presence of FDI relative to the size of their economies tend to have a higher level of participation in GVCs and a greater relative share in global value added trade compared to their share in global exports.” Guyana can similarly seek to attract a foreign investor to either open up a manufacturing base or it can pursue arrangements as contract manufacturers. The latter is more practical in light of the trend towards outsourcing of manufacturing. However, the former would be a less costly strategy for the country to pursue. Nevertheless, both will ensure that there is a guaranteed market for outputs.

At the local level there are contract manufacturing arrangements with retailers such as Courts purchasing furniture on a contractual basis from small suppliers. What is being

recommended here is a similar strategy with global buyers in order to facilitate an effective means of tapping into global markets. According to Gereffi and Korzeniewicz (1994 in Kaplinsky, Readman and Memedovic 2009, 46-47) “the furniture industry is an example of a buyer-driven value chain, which means that manufacturers are subordinate to buyers. The future of the local furniture manufacturer, therefore, will generally be tied closely to that of its customers”. Marshall had envisioned that with industrial districts “substantial trade is transacted between buyers and sellers, often entailing long-term contracts or commitments.” (Humphrey and Schmitz 2002, 1019)

Under contract manufacturing arrangements there is scope to receive technical assistance (Kaplinsky, Readman and Memedovic 2009). This is because, while most global leaders internalize design, in the interest of consistent and quality product, they may work with suppliers by “setting quality, price and delivery targets and checking performance compliance; providing direct training to suppliers; providing finance to facilitate production expansion; working directly with suppliers to upgrade their performance; and assisting suppliers with their own supply chain” (*ibid*, 28).

8. Conclusion and Policy Recommendations

Guyana is a still a fairly young economy, having attained only 50 years of independence and continues to be characterized by a high reliance on primary products. This is clearly evident in the forestry sector where secondary value creation is virtually non-existent relative to the size of production and exports of primary wood products. This persistent reliance on exports of primary products must give way to increased value creation activities for the benefit of increasing the social and economic wellbeing of the populace.

This study emphasized a global value chain and cluster-based approach to increasing value creation in Guyana influenced by the literature on core competences and dynamic capability. These approaches are specifically geared towards understanding how SMEs can be inserted into global markets and reap benefits as do larger firms. As in Guyana, SMEs are prevalent in other developing countries, including leading manufacturers of furniture and furniture parts. However, these are organized into industrial clusters and largely benefit from contract manufacturing through outsourcing by global lead firms such as IKEA.

Guyana can follow these strategies, in furniture, as well as other industries. However, Guyana will require product, process and end market upgrading. Noteworthy, Guyana can explore lucrative niches in the global market, such as; design intensive products, demand for outdoor furniture in the UK and products based on high-value wood species.

As evident in leading manufacturing countries such as Malaysia, a strong degree of collaboration between the public and private sector would be required to achieve any upgrading within the industry. In fact, public-private coordination is fundamental to a cluster-based strategy. In particular, government and the private sector must work together to develop selective interventions and a target-based industry-specific strategy. According to Ratnasingam (2011) apart from factor inputs, government intervention was the other main driver of growth in the Malaysian furniture industry.

In addition to the proposed strategies the following policy mechanism are also recommended:

1. Building productive capacity of firms by lowering tariffs on imported parts and machinery;

2. Increasing access to finance which may help to reduce informality in the industry;
3. Augmenting capacity for training in furniture designing within current vocational institutions that focus on furniture manufacturing;
4. Continued and urgent emphasis on wider infrastructural development in areas of relevance to the industry such as creation of a deep water harbour;
5. Greater push for energy-related projects being developed to reduce energy costs;
6. Augment capacity of firms for standards compliance along the entire value chain through technical capacity building of relevant industry associations.
7. Augment research and development capacity within relevant institutions such as the FPDMC to; 1) stay ahead of changes in the global market, specifically the demands of various buyer types 2) market Guyana and target global buyers and; 2) to facilitate better understanding of the local market, specifically the factors leading to informality.

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Appendix

Table 4: Value (US\$Mn) Of Trade In Wooden Furniture And Leading Markets: 2014

Table 4: Value (US\$Mn) Of Trade In Wooden Furniture And Leading Markets: 2014							
	Value of total exports (US\$Mn)	Top 5 exporter markets	Value of exports (US\$Mn)	Value of total imports (US\$Mn)	Top 5 import markets	Value of imports (US\$Mn)	Balance of trade
940330- Office Furniture, Wooden Nes	0.0001	USA	0.0001	0.2719	USA	0.0916	-0.2718
					China	0.0913	
					Canada	0.0774	
					Jamaica	0.0111	
					Saint Lucia	0.0002	
940340- Kitchen Furniture, Wooden Nes	0.0178	Belgium	0.0035	0.5539	USA	0.2375	-0.5361
		Trinidad and Tobago	0.0030		China	0.1617	
		Brazil	0.0029		Malaysia	0.0998	
		Dominica	0.0021		Panama	0.0201	
		United Kingdom	0.0019		Canada	0.0070	
940350- Bedroom Furniture, Wooden Nes	0.0063	Canada	0.0030	0.9457	USA	0.3779	-0.9394
		Trinidad and Tobago	0.0011		Brazil	0.1995	
		Suriname	0.0010		China	0.1638	
		Saint Vincent and the Grenadines	0.0005		Viet Nam	0.0695	
		Barbados	0.0004		United Kingdom	0.0488	
940360- Furniture, Wooden, Nes	0.0248	USA	0.0088	2.6113	USA	1.3355	-2.5865
		Canada	0.0059		China	0.7755	
		Saint Lucia	0.0052		Panama	0.1278	
		Trinidad and Tobago	0.0022		Malaysia	0.0967	
		Jamaica	0.0014		Trinidad and Tobago	0.0751	
940381- Furniture Of Bamboo/Rattan	0.0054	Suriname	0.0042	0.1886	USA	0.1847	-0.1832
		Trinidad and Tobago	0.0012		China	0.0013	
					Panama	0.0013	
					Trinidad and Tobago	0.0007	
					Dominican Rep.	0.0003	
940390- Furniture Parts, Nes	0.0020	Suriname	0.0020	0.1410	Brazil	0.0573	-0.1391
					Canada	0.0277	
					China	0.0167	
					Germany	0.0160	
					Malaysia	0.0141	
Source: Author based on UNCOMTRADE							