

Technical Diagnosis of Secondary Wood Processing in Cameroon

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ABSTRACT

Cameroon's forest covers about 20 million hectares and is the second largest forest in the Congo Basin. It abounds more than 300 species among which just 60 are exploited and only 5 of them represent about 70% of national wood production. Originally aimed to add more domestic value to wood and to encourage local processing of timber, the forestry law voted in 1994 however contributed to the emergence of an industry of primary wood processing oriented towards foreign markets, and this to the detriment of the development of the secondary wood processing industry. Therefore, the goal of this study was to investigate the possible reasons of this stagnancy of the sector of secondary wood processing in Cameroon. Twenty Small and Medium Size Enterprises operating in the formal and informal sectors of the city of Yaounde were chosen. The use of SWOT method enabled us to show that the secondary wood processing in Cameroon has enormous potential, among others the presence of raw materials, cheap labor and especially the presence of a local, regional and international growing market. We also noticed some weaknesses like the lack of qualified workers and innovation, the non use of new technology and therefore proposed this study to be a solid basis for overcoming or providing solutions to these weaknesses not only in Cameroon but also in the Congo Basin region.

1. INTRODUCTION

The dense forest of Central Africa covers between 200 and 230 million hectares and is the second biggest forest of the whole planet after the Amazonia (Connolly 2006). It is important to note that 60 % of this massif is exploitable. The Cameroonian forest covers approximately 20 million hectares and represents 44 % of the territory (Jung and Debels 2003). It is the second biggest forest of Africa after that of the Democratic Republic of Congo (Dogmo 2009). In Cameroon, there are approximately 300 species of wood but only 60 of them are the object of a regular exploitation (Noiraud 2005). In order to add more domestic value to wood, the forestry law of 1994 was aimed to encourage local processing of timber. Another law promulgated in 1999 prohibited the export of logs in the form of tree species other than those of promotion. However, instead of promoting the secondary wood processing (2WP), the concept of "transformation" mentioned in the 1994 law led to the emergence of an industry of primary wood processing (1WP) oriented towards foreign markets (Pinta and Fomete 2004). With the rapid demographic growth, the needs for housing and furniture have increased over the last past decades and nowadays, although its richness in wood, Cameroon

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imports wood furniture much more than it exports. In 2004, Cameroon exported furniture worth 111. 000 U.S. \$ and imported for 3. 292. 000 U.S. \$ (Langbour and Gerad 2006). Furniture import in Cameroon in 2008 was valued at 19 million U.S. dollars including wood furniture and free-wood (OTF 2009). The wood contribution to national GDP (Gross Domestic Product) in Cameroon is about 11% and could increase if more wood was transformed into finished products before being sold overseas. Cameroon borders are very important opportunities and growing regional markets for wood furniture. Furniture stemming from Cameroon are more and more sought for in the sub-region and are made at Olezoa (local furniture market in Yaoundé) which is also a supplier of other countries (Gabon, Congo, and Equatorial Guinea). Most of the furniture found in this market comes from the small carpentries which are limited in terms of quality of products. Thus, to develop the secondary wood processing industry could be a very important factor to economically improve the position of Cameroon in the region. Because we believe in the fact that difficulties could be well addressed if they are well understood, the goal of this study was to investigate the possible reasons of the stagnancy of the sector of secondary wood processing in Cameroon. The SWOT method was used to analyse the strengths and weaknesses of this sector in Cameroon.

2. MATERIALS AND METHODS

2.1. THE TIMBER INDUSTRY IN CAMEROON

The timber industry in Cameroon includes various types of activities and can be subdivided into three main areas (logging, primary wood processing and secondary wood processing).

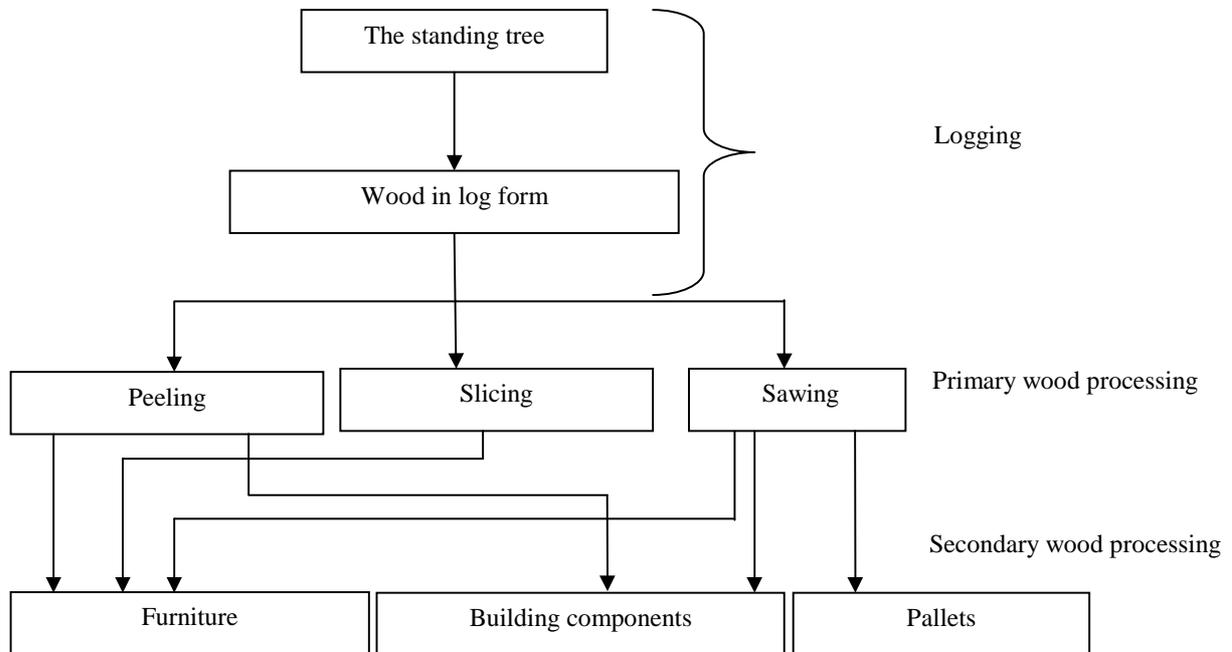


Figure 1: Presentation of the timber industry in Cameroon

In the particular case of Cameroon and in this study, we subdivided the secondary wood processing sector into three groups: the first is represented by the components of construction which include roof, windows, doors, floor and walls covering; the second group is composed of furnishing (which include box furniture such as kitchen cupboards, files of living room, closets; and non-box furniture such as tables, chairs, lounge etc.) and the elements of furniture, and house building; the third group encompasses pallets. This subdivision helped us to adequately choose our samples. Also, based on the producer, the sample were either labelled as formal sector (SMEs: Small and Medium-size Enterprises) or informal sector (crafts men or small wood processing units).

2.1. SAMPLES

In the frame of this study, 20 SMEs (among which only one is able to deliver its products on the international market) and small carpentries practicing in the sector of the 2WP in Cameroon were selected in the city of Yaoundé. The city of Yaoundé was chosen for several reasons: The largest number of SMEs operating in the field of wood processing industry is located in Yaoundé; The informal sector-Dynamics are mainly represented by the Olézoa-Market which is located in the city of Yaoundé and the proximity of the raw material coming from the East and South region of the country.

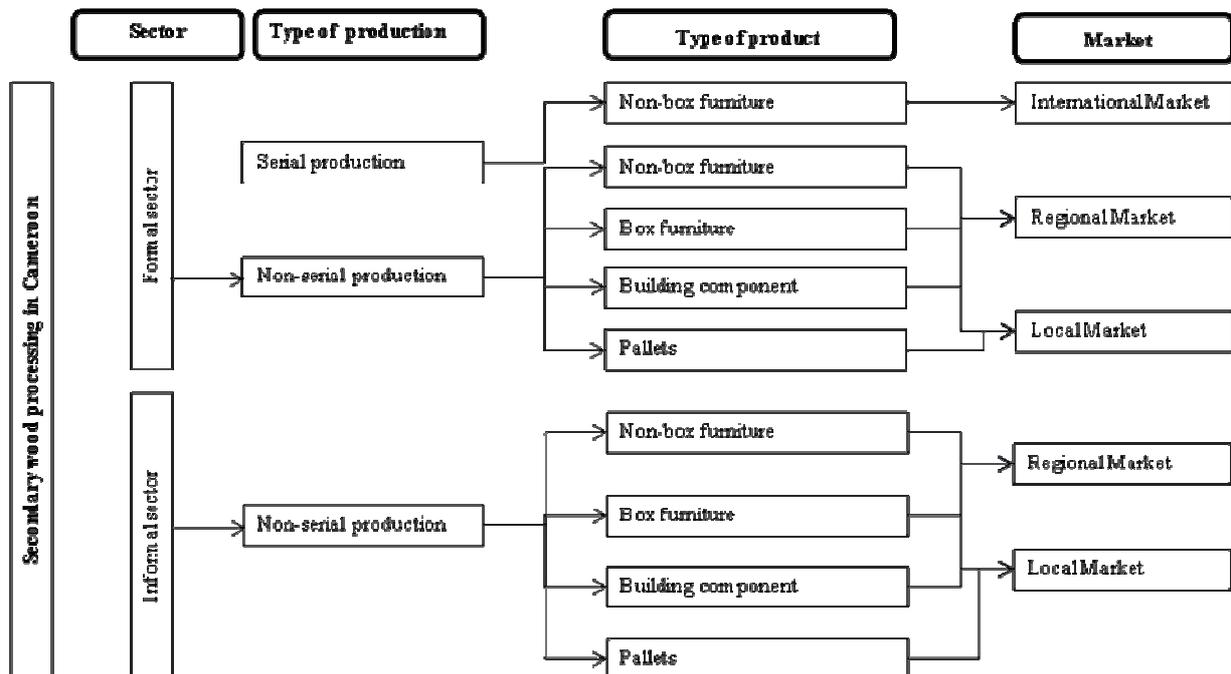


Figure 2: Presentation of the secondary wood processing in Cameroon

2.2. DATA COLLECTION

In a first step, individual interviews were performed with the different actors from the sector of secondary wood processing. This was made with the help of a questionnaire. The results obtained during this phase allowed a general overview and based on this, we selected 2 representative companies, one in the formal sector and another in the informal sector. In a second step, a full analysis of the production system of these two companies was performed. The questionnaire used in this study was built up following the principle evoked in three models:

First step: Visit of several SMEs and actors

It is a question of a detailed analysis on the ground in the form of individual interviews with the responsible and actors in this sector. This study will identify the strengths, weaknesses, and an expectation of each of the actors in the secondary wood processing in Cameroon.

It can happen in two levels. In the production workshop, on the one hand, it aims to make a full analysis of the system of production and organization of this one. It is a question of ability to understand the manufacturing process and identify bottlenecks; on the other hand the goal is to collect the data to develop a strategy that will enable this sector to be better understood in Cameroon and to improve its performance with its product quality in local, regional and even international market.

Second step: Selection of two SMEs

Select two players in each type of furniture producers in each sector (formal and informal). An indepth analysis in two formal SMEs and two artisan units working in the informal sector was done. They are representative in terms of manufacturing process for local and regional and even international market.

2.3. METHODS

Many methods can be used to develop a strategy which could be helpful to understand and to develop the secondary wood processing sector in Cameroon.

2.3.1. LCAG MODEL

This model is still an important reference, because it was the first model to support policy formulation (Leaned, Christen, Andrews and Guth 1965). It is based on two key concepts: the concept of "distinctive competence", which was evolved by Selznick in 1957 and the concept of "strategy business sector", developed by Chandler in 1972. The model provides a logical reasoning into five phases: (i) External evaluation, which include identifying threats and opportunities in the environment and identifying key success factors; (ii) Internal evaluation, which include identification of strengths and weaknesses of the company relative to competition and with respect to time and identification of distinctive competence compared with the competition; (iii) Creation and evaluation of all possibilities of action; (iv) Clarification of values of the environment (social responsibility of business) and managerial values (leaders) and (v) Choice of strategic manoeuvres with the resources and implementation strategies (Evrard 2006).

2.3.2. IGOR ANSOFF MODEL

This model distinguishes three types of decisions: strategic, administrative, and operational: strategic decisions determine the choices for products and ways to market growth and spread over time; administrative decisions structure the resources of the firm so as to ensure its success and ensure the optimal development of these resources: funding, equipment, personnel, raw materials and operational decisions are intended to implement the operation in optimal conditions of return on capital (Evrard 2006).

2.3.3. SWOT ANALYSIS

The SWOT analysis is a general technique, which can be understood as the examination of an organization's internal strengths and weaknesses, and its environments' opportunities, and threats. It can be helpful in order to gain insights into the past performance, present strategy, resources and capabilities and develop solutions to existing or potential problems. It is based on an analysis of facts and assumptions about the company, which include sales, products, markets, financial resources, capabilities/scalability, people and skills (in particular marketing export experience), customers (market research) and intellectual property. The opportunity and threat analysis is useful by examining external factors in your domestic and export market(s). This is usually broken down into environmental factors and competitors. The environmental includes demographic, economic, political/legal, sociological, environmental, technology and cultural and the competitors are market segments, products, prices, promotion, distribution, capability, resources, ownership, new entrants, substitute products, suppliers customers, product life cycle and risk and cost of intellectual property violation of your product (Trade E 2007).

An understanding of all external factors, (threats and opportunities) together with an internal examination of strengths and weaknesses assists in forming a vision of the future (CIRI 2011). It can go further in the decomposition processes of internal and external analysis of the company. All these analyses can be collected in a matrix called SWOT, directly derived from the LCAG model. The SWOT matrix contains the two axes of LCAG model analysis for projections, from the synthesis of both analyses, policy options for the company. This tool which is widely used worldwide was selected for this study (Evrard 2006).

3. RESULTS AND DISCUSSION

3.1. SWOT MATRIX OF THE SECONDARY WOOD PROCESSING IN CAMEROON

Table 1: The SWOT matrix of the secondary wood processing in Cameroon

	POSITIVE	NEGATIVE
INTERNAL	<p><i>STRENGTHS</i></p> <ul style="list-style-type: none"> ✓ availability of raw materials in the country (wood) ✓ low-wage workers ✓ existence of a local and regional market ✓ low price of raw material ✓ government support through laws ✓ desire of industry players to develop their business ✓ support of international organizations to fight against poverty and global warming ✓ Cameroon can be considered as the leader in this sector in the sub region 	<p><i>WEAKNESSES</i></p> <ul style="list-style-type: none"> ✓ difficulty in sourcing raw material (wood) for the 2WP(secondary wood processing) ✓ low recovery rate during processing ✓ non-use of appropriate techniques for transformation ✓ lack of new technologies in the second transformation ✓ lack of knowledge of material specifications ✓ lack of skilled labour ✓ inaccessibility to bank financing ✓ failure to comply with ISO standards (9000, 9001, 14000) ✓ poor communication ✓ inadequate leadership ✓ lack of employee motivation sometimes due to difficult working conditions (salary does not allow them to be able to cover their expenses, lack of insurance coverage although the risk of accidents, no pension contribution ...) ✓ too little delegation and no trust ✓ the very low degree of product innovation ✓ unavailability of good quality accessories for 2WP ✓ low awareness regarding the protection of the environment ✓ research in the timber industry almost not present ✓ almost nonexistence of wood technology study in universities ✓ lack of data in the sector ✓ lack of patent protection ✓ weak brand name ✓ poor reputation among customers ✓ high cost structure ✓ Lack of access to key distribution
EXTERNAL	<p><i>OPPORTUNITIES</i></p> <ul style="list-style-type: none"> ✓ presence of a potential market (local, regional and international) ✓ presence of the raw material ✓ unanimous desire of promoting the sector to improve its contribution to GDP of the country ✓ geographical position of Cameroon (the 	<p><i>THREATS</i></p> <ul style="list-style-type: none"> ✓ Competition from Asian countries (China, Indonesia ...) ✓ unavailability of desired species at the appropriate time ✓ lack of data in the sector ✓ lack of qualified personnel

	<p>port of Douala, international airports of Nsimalen and Douala ...)</p> <ul style="list-style-type: none"> ✓ presence of vocational training centers for carpenters ✓ the very high population growth contributes to the increased need for housing and furniture ✓ an unfulfilled customer need ✓ arrival of new technologies ✓ removal of international trade barriers 	<ul style="list-style-type: none"> ✓ non-existence of standards in the area of secondary wood processing
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3.2. AVAILABILITY OF RAW MATERIALS

For the secondary wood processing in Cameroon to benefit from the presence in quantity and diversity of its forestry potential, the raw material should be continuously available and should be of good quality at a reasonable price. In this study, we classified the availability of raw material as an opportunity for the 2WP but however we noticed that almost all the furniture producers regardless the size on the company face difficulties to source wood. The wood used is often bought from illegal markets with no traceability as well as quality and prices standards.. One measure to solve this problem could be the creation of a legal timber market, where actors can be provided in cities across the country. . Control of prices of this raw material is very important to avoid the uncontrolled rise in prices of good quality wood which can be an impediment for the development of a competitive sector of the secondary wood processing.

3.3. LOW-RANGE WORKERS

The low-wage workers can also be seen as an opportunity for the actors in this sector to reduce their cost of production. However, they must be careful that the minimum wage received by an employee enables him to ensure his subsistence and to plan his future. Thus the 2WP may contribute to the development of Cameroon and the reduction of poverty. A good distribution of the benefits of SMEs either in formal or informal sector is a value necessary for the stability and the involvement of all employees for the evolution of the company and the timber industry in general. This is a recommendation of the ISO 9000 and can lead to an advantage of involvement and responsibility at work for each employee. A veritable break in the mentality of the society is very important. People really need to know that can find good career opportunity in the field of wood industry and for this to happen, there is a real need committed employees and officers who really love their profession but also managers who have knowledge in business and project management and who have a spirit of creativity and innovation.

3.4. ANALYSIS OF POSSIBILITY OF MARKETING

The presence of local and regional markets (Cameroon, Equatorial Guinea, Gabon, and Nigeria) is very important. Currently much of the furniture market is saturated with products from Asia. The products from Asia are mostly in wood panels, while those from Cameroon are mostly hardwood. Solid wood has the advantage of being more suitable for moisture content of more than 72 in climatic conditions (Air Tropic, 2010). This can lead to a problem of sustainability with respect to furniture from Asia. For the production standards in terms of processing technology are applied to the secondary processing sector; it will recover much of this market and seek openness to the international market. This is very reassuring to the formal and informal secondary processing because through an improvement in the quality of their product there is a market which can easily identify the needs and deliver competitive products to access to these markets. With the continued growth of the population, the demand for products from the wood processing industry will surely continue to expand this market in the present and future. In this situation, the big challenge for each company is to deliver competitive products in terms of quality and price. The fact that SMEs and the informal sector in Cameroon currently possess the field of wood processing industry the most advanced in the region is a considerable advantage to position them in this growing market.

A government's willingness to help this sector to develop is vital. This is verifiable by the various laws that the government with the support of international organizations has been trying to put in place over the last 20 years. However, apart from passing legislation to enable this sector to take off, there are other aspects that the government and the private sector must take into account. These include training, research, financing and taxation.

4. CONCLUSION

The secondary wood processing in Cameroon has enormous potential that can be used for economic and sustainable social development not only in Cameroon but also in the entire Congo Basin region.

This study shows that the secondary wood processing in Cameroon has weaknesses and threats but also many strengths and opportunities that if exploited could lead to great improvements in this sector. The results also show that parameters such as raw materials, cheap labor and potential growing market may be the basis for the development of a strategy if they are well understood. This study, it is one of the first in this sector. The next step of this study could be to develop the quality function of the secondary wood processing in Cameroon which could be a tool use to improve the quality of the product in this sector.

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