

Internationalisation of South African companies in the hardwood industry in the European market

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Abstract

Orientation: Export opportunities, internationalization, have been prioritised by South African Trade and Industry in order to promote economic growth.

Research purpose: It is critical for the expansion of organisations to consider internationalisation when there are prospects for expanding trade activities in already existing and sometimes firmly established markets.

Motivation for the study: Upon entering an international market competitively, a clear understanding of all factors impacting on profitability and sustainability of the organisation strategic endeavour, is required.

Research design, approach and method: A case study research design was selected for this study. The parameters presented a large role player in the hardwood industry and export trade at the time of the data gathering. Qualitative research approach represented the data collecting process as observational and specifically perceptible. The data acquired from participants in their natural environment and preference given to the ways in which individuals interpret their social world. Secondary data was used.

Main findings: Belgium's market size for hardwood products is greater than the consumption indicating an over-supply, whereas Germany's supply and demand are exactly equal. The Netherlands' demand for wood is greater than the supply.

Practical/managerial implications: Although all the European Countries are possible export markets for wood, it is recommended rather to concentrate exports of wood products to the Netherlands.

Contribution/value-add: The international market for hardwood in Europe is available for exports from SA. The Forest Stewardship Council (FSC) certification awarded South African plantations is sufficient to serve as the requirements stipulated by both the European countries and CITES.

1. Introduction

Notwithstanding the close relationship between internationalisation and globalisation, these notions should not be confused. Tolstykh (2014) distinguishes between the two concepts by describing internationalisation as the intensification of international connections and exchanges, and globalisation as the expansion of this process to the point where unconnected regions become similar parts of a unity.

Cavusgil and Riesenberger (2014:38) define internationalisation, in a similar way to Tolstykh (2014), namely as a company's inclination to systematically increase the international element of the business actions. International business is international trade, international investment, or foreign direct investment. The trade will include both products and services exchanged, either through importing or exporting to or from customers from SA or a foreign country. This practice is also known as inbound and outbound activity. International investment refers to organisations securing ownership of assets situated in a foreign country. Nowak (2018) elaborates on internationalisation by referring to the liberalisation that

takes place in the process of removing officially imposed restrictions on movements of resources between countries. Further to this easing of barriers, is the process of diffusing numerous products and new experiences to people in all parts of the world, also known as universalisation. Nowak (2018) added a specific type of universalisation called Westernisation, whereby the social structures of Western civilisations are spread universally.

Organisations will consider internationalisation when there are prospects for expanding their trade activities.

2. Internationalisation in South Africa

SA participates in regional initiatives such as the Tripartite Free Trade Area (TFTA), and the Continental Free Trade Area (CFTA) under the African Union's Agenda 2063 and is a member of the SADC and SACU blocks in Southern Africa (African Development Bank, 2018). SA also participates in bilateral agreements, such as the African Growth and Opportunity Act (AGOA) and the EU/SADC Economic Partnership Agreement, between SA, Botswana, Lesotho, Namibia, Mozambique and Swaziland established with the EU on 15 July 2014. There are further existing trade agreements such as the European Free Trade Area/SACU (Botswana, Lesotho, Namibia, SA and Swaziland) (May 2008) and EU-SA (January 2000) (African Development Bank, 2018).

According to the EU/SACU agreement, the five participating countries deposit their customs and excise collections into one revenue pool. Botswana, Lesotho, Namibia and Swaziland receive a significant share of their revenue from the customs levies which are dependent on the business cycles with SACU's major trading partners, and on the performance of the South African economy. The fiscal outturns in these countries, with the exception of Botswana, therefore, largely reflect the path of the South African economy (African Development Bank, 2018).

As part of the South African economy's pursuit to promote economic growth, regional integration is important. The widely acknowledged agreement that a high level of regional integration also improves economic growth, was proven correct by the African Development Bank.

The main trade corridors in SA are the Cape Town-Gauteng and Durban-Gauteng corridors, and the main ports are connected to the economic heart of the country, the Gauteng Province, and part of the North-South corridor, which is a multimodal (road, rail and port) transcontinental interconnector linking SA, Botswana, Mozambique, Zambia, Zimbabwe, Tanzania and Malawi and, finally, connecting Cape Town to Cairo. Durban has been identified as the busiest port in SA and also as the 3rd largest container port in the Southern Hemisphere (African Development Bank, 2018).

SA is integrated in the regional and global value chains in which 34% of total exports constitute intermediate goods, 26% raw materials, 24% consumer goods, and 15% capital goods are exported. (African Development Bank, 2018).

3. Export South Africa

Cavusgil et al. (2014:393) defines exporting as the organisation's strategy followed in international trading. This strategy results in the exporter being able to both enter and withdraw from markets fairly easily, with minimum risk and expenses. The volume of world exports has grown enormously, to such an extent that various industries depend on international trade (Cavusgil et al., 2014:393). A systematic approach of assessing potential markets, organising the business, acquiring the necessary skills and competencies and implementing export operation, will lead to successful exporting, according to Cavusgil et al. (2014:396)

3.1. Increasing demand for South African goods and services

The Integrated National Export Strategy (South Africa) prioritised high-growth emerging markets, especially those in Africa, Asia, BRICS, Latin America and the Middle East. Export promotion mechanisms such as Investment and Trade Initiatives, National Pavilions, Trade Missions and unconventional interventions are used as levers to create visibility and market access for South African exporters. The aim of such ventures is to provide the right exposure for South African exporters and their

products by increasing the visibility of SA as a supplier of choice (Department of Trade and Industry, 2018).

3.1.1 Exporting hardwood products from South Africa

Although there are many suitable and cost-competitive substitutes for hardwood, made for example from fossil fuels, which are becoming increasingly more available, the major advantage of wood is still the fact that it is environmentally friendly. However, significant forecasts have predicted that tree felling aids environmental degeneration by contributing to the increase in atmospheric emissions of carbon dioxide (Food and Agriculture Organization of the World, 2018).

The World Forestry Organisation predicts that the demand for timber consumption will increase in the West over the short term. This fact, together with the growth in the developing world, and an expected increase in energy generation from biomass, will increase global timber consumption to levels not experienced before (Food and Agriculture Organization of the World, 2018).

Based upon the above predictions, the possibility of exporting hardwood and wood products from SA will increase and important aspects to deliberate when considering exporting will be:

SA's GDP growth is expected to continue at close to two percent in 2019 and 2020 (according to predictions made in 2018) (World Bank, 2018). GDP in 2020 will not reach a positive growth percentage due to the Covid-19 impact. This pandemic will result in negative estimates impacting on all sectors of the economy.

Pulpwood from the harder pulpwood species (hardwood) is expected to increase slightly, because of the capacities that the chipping plants allow. This growth will result in a higher supply of this product and greater export opportunities. The price will be driven by the South African inflation rate and the R/\$ exchange rate (Food and Agriculture Organization of the World, 2018).

Mining timber (hardwood) is expected to decrease in line with the decrease in demand from mines. (Food and Agriculture Organization of the World, 2018). The possibilities of production for treated poles are expected to remain at current levels with the opportunities in the export market. Poles, both treated and untreated, are in high demand. The pole supply (hardwood) increased in 2019 with further expectation in 2020. This forecast is in line with the information received from the company because pole supply is a specific component that has been cultivated over the past five years. Price increases are expected to be in line with the national inflation rate (Food and Agriculture Organization of the World, 2020).

The prime overdraft rate was to remain at 7.25% in 2019 and remain unchanged towards the end of 2019, beginning of 2020 (South African Reserve Bank, 2019). After the first case of Covid-19 was reported in December 2019 in China and a world pandemic was announced in February 2020, SA's economy, in line with the rest of the world, went into recession, resulting in unemployment increasing exponentially as the lockdown of the economy started to take effect. (South African Reserve Bank, 2020). The R/\$ exchange rate was at R14.45 (April 2019) and is expected to trade between R14.50 and R14.80 in the short term. The forecast for 2019 is an average of R14.80 and for 2020 it could be at R15.39, as forecast at the end of 2018, beginning of 2019 (South African Reserve Bank, 2019). However, the unforeseen impact of Covid-19 and the sales of SA Bonds, due to uncertain foreign markets because of the pandemic, resulted in the foreign exchange rate plummeting with South African exchange reaching record lows of more than R22 against the Pound Sterling.

The inflation rate is likely to increase from the current 4.4% to 5.4% in 2020, as forecast in 2018 (South African Reserve Bank, 2019).

Companies with sawmilling operations will have the advantage of a vertically integrated supply chain through which the timber plantations are transferred to sawmill. Therefore, if a Company wants to produce and export more sawn wood, it will be possible to do so because the sawmill operations can be expanded as and when needed.

3.1.2 Importance of information of country of destination

South African companies in the hardwood industry want to enter, or re-enter, the European market. This market is, as Aregbeshola (2017:256) indicates, unique in context and structure, even though there is a

regional economic integration between the European countries from which the markets benefit. These countries include those toward which this study is directed, namely Belgium, Germany and the Netherlands. Although, according to Aregbeshola (2017:256), the economic arrangement emphasised “a liberalisation of integration of ideology”, the core was founded in the openness and accessibility of trading in goods and services taking place. This arrangement was possible with the availability of transferable money, as well as access to labour and resources across all the borders of the EU states.

The treaty agreed upon by the EU included the existence of various advantages for the participative countries, but, even more importantly, determined a uniform standard for products and production processes. This uniformity, however, resulted in further economic and social integration until a Single European Act, the realisation of a single market, came into effect in 1987 (Aregbeshola, 2017:256).

The traditional analysis of hardwood supply and demand, centred on wood removals from forests and wood input to industries, is inadequate. This fact was already determined more than a decade ago, suggesting that a more complex approach is necessary, based on comprehensive wood resource balances and requiring original research and data gathering, (Food and Agriculture Organization of the World, 2018). The SA Forestry reported on the Global Forestry Index 2018 (Forestry SA, 2018) as follows:

Global timber markets:

In early 2018, the Global Sawlog Price Index (GSPI) reached \$80.73/m³, its highest level since 2014. Sawlog prices generally increased in local currencies during 2018, but with a stronger US dollar, the dollar-denominated GSPI index fell by about 5% during the year.

Mixed price movements in Europe resulted in fairly small changes in the European Sawlog Price Index (ESPI-€). In the fourth quarter of 2018, the index was up 1.8% quarter on quarter, but was practically unchanged from the fourth quarter in 2017 (Forestry SA, 2018).

Global lumber markets:

In 2018, the global trade in lumber fell for the first time in five years, with total trade down 7% year-on-year to an estimated 115 million m³.

US lumber prices have experienced a historical ‘roller-coaster ride’ over the past 12 months. Average prices for pine in the US South were at about \$420/m³ in January 2018, peaked at \$554/m³ in June, and fell to \$372/m³ in early 2019.

Sawmills in the Nordic countries had a very good second half of 2018, with lumber prices in the local currencies in the second half reaching their highest levels since 2007.

Lumber imports to China fell for two consecutive quarters to reach 5.9 million m³ in the fourth quarter of 2018.

Russia's share of total imports to China increased from 55% in the fourth quarter of 2017 to 63% in the fourth quarter of 2018, during which the sawmilling sectors in Siberia and the Far East continued to expand and deliver competitively priced lumber.

Despite substantial declines in the gross margins for sawmills in the US, profits were still above the ten-year average in the fourth quarter of 2018 (Forestry SA, 2018).

Global biomass markets:

Global trade of wood pellets jumped almost 18% year-on-year in 2018, when a new record of over 20 million tons was shipped.

Pellet prices in Austria and Germany reached their highest price in five years in the first quarter of 2019 (Forestry SA, 2018).

Taking the above facts into consideration, there still is an increasing market for both new and existing plantations, according to The United Nations Economic Commission for Europe (UNECE, 2018). Wood supplies need to be increased to successfully participate in the export market.

3.2. Export opportunities to Europe

Within the forecasted demand for wood, SA has the opportunity to increase its wood supply into world markets in the future. However, the main suppliers of wood in the future will be the Northern Hemisphere countries, followed by Asia and South America. Notwithstanding this fact, SA is currently

exporting to various countries, and there are indications of other countries and regions which might be future potential markets.

3.2.1 Trade agreements and restrictions

SA may enter the EU markets without any tariff barriers because it falls under the Generalised System of Preferences (GSP), a programme designed to promote economic growth in the developing world, by providing preferential, duty-free entry for products manufactured in the African, Caribbean and Pacific (ACP) countries. However, South African products still have to meet certain requirements to enter the EU market, for example, they have to provide evidence of origin to EU customs in the form of a Certificate of Origin, and the wood or articles, therefore, must be transported directly to the EU from the country of origin (Department of Trade and Industry, 2018).

While generally a positive development, these tariff reductions will partially erode the margin of advantage enjoyed by SA. Tariff rates on hardwood products in developing countries tend to be much higher than those in developed countries, ranging from 10% to 60%, with additional taxes and duties often elevating the total burden considerably (Department of Trade and Industry, 2018).

3.2.2 non-tariff measures

There are a number of non-tariff measures (NTMs) for wood products that are often less visible than tariffs, and include quantitative restrictions such as:

- import quotas,
- technical standards,
- plant health (sanitary and phytosanitary) standards,
- export restrictions,
- cumbersome import licensing,
- customs procedures and
- domestic policies.

The NTMs are also more complex than tariffs and are thought to have a greater trade-restricting effect, thus, it can be harder to gauge their impact (The Unseen Impact of Non-Tariff Measures, 2018). One of these measures is the use of import quotas for forest products. This quota is declining, resulting in possible difficulties in exporting to these countries in the future. However, the use of export restrictions, particularly on logs, has been lifted which has had a major impact on trade in forest products. Complying with import licensing and customs procedures, adds costs to foreign suppliers' goods, something that domestic producers, or for that matter, those operating in EU countries, cannot endure. Certain domestic policies (or EU-related policies) including subsidies and tax concessions, affect the competitiveness of foreign producers because these reduce domestic producers' costs (The Unseen Impact of Non-Tariff Measures, 2018).

As far as hardwood products are concerned, safety regulations usually revolve around their strength characteristics and suitability for use in construction. These rules are more applicable to logs and sawn wood than to higher value-added processed wood products, which are rarely used for structural purposes. The same condition is applicable to health and phytosanitary standards. Value-added products containing dried timber reduce phytosanitary risks. The EU could regard health and phytosanitary regulations more important for trade in non-wood forest products (NWFPs) since these products are often used in food and environmental contexts. There may be, for example, restrictions on wood-based panels containing formaldehyde glue, controls designed to discourage companies from using chlorine to bleach pulp, and regulations regarding the recycling and recovery of wastepaper and packaging (Kowalska, Donatello & Wolf, 2019).

Two agreements from the World Trade Organisation (WTO), were part of the Uruguay Round, may lead to a reduction of the impact of NTMs. The Agreement on Technical Barriers to Trade (TBT) limits the use of technical regulations to legitimate safety, health and environmental protection purposes, while the Agreement on the Application of Sanitary and Phytosanitary Measures may improve quarantine and inspection conditions (Understanding the WTO Agreement on Sanitary and Phytosanitary Measures, 2018).

Most trade restrictions are motivated by concerns about the environment. This incentive is even more pronounced in the forestry sector in which bans, and boycotts are aimed at encouraging sustainable forest management. The NTMs include bans on the use of timber from forests which are not sustainably managed, and these restrictions have been imposed by local authorities as well as retailers and traders. However, the main target of these restraints is the tropical timber, due to concerns about tropical deforestation. The certification of forest products by the FSC, to assure consumers that the wood used in the products is obtained from a sustainably managed source, is one way of abiding by these NTMs. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) uses degrees of trade restrictions to regulate trade in endangered species (Department Agriculture, Forestry and Fisheries, 2018). 'Anti-dumping' measures have recently been used by countries such as the US as a barrier to defend their local wood products industry, which came under pressure from cheap imports from countries such as China (Jean & Resheff, 2017).

4. Research Methodology

A case study research design was selected for this study. (Babbie & Mouton (2014:75) This research design is focused on a specific situation, and on the researcher's understanding the uniqueness of the case within the complex environment (Welman & Kruger, 2004:21). The main objective of a case study is to determine the dynamics of the single bounded system, therefore particular parameters and careful consideration for such parameters is required.

The important parameter was that the chosen case had to be a large role player in the hardwood industry in particular because this is the industry in which there appeared to be a need for export trade at the time of the data gathering.

The case study research design, guided the researcher in selecting an appropriate research approach in accordance with the considerations delineated below.

Qualitative research approach – the data collecting process is either observational and/or specifically perceptible. Consequently, the accumulated data is not quantifiable, because behaviour were observed (not measured) and then interpreted. The data was acquired from respondents in their natural environment and preference given to the ways in which individuals interpret their social world. Deductions and interpretations of a social phenomenon constantly shift as interpretations by individuals change (Creswell & Poth, 2016:104). Inductive reasoning also applied (logic that stems from specific facts but is drawn to believable generalisations).

4.1 Literature analysis

After the specific problem in the wood industry was identified, the next step was to review the available literature on both the topic and other relevant aspects. Of particular significance is its effective analysis of the literature in terms of the objectives of the study. In this study, literature analysis was also implemented as a research method. More specifically, the analysis of the various categories and units of meaning.

4.2 Semi-structured interviews

Semi-structured interviews were conducted with participants, supplemented with extensive notes. The interview data came from: (Babbie & Mouton, 2014:288).

Through enculturation. The gathering of data was achieved by interviewing people with knowledge of the wood industry, the business environment (national and international) and export understanding.

Current involvement. Individual semi-structured interviews on a one-to-one basis were conducted, recorded and transcribed with respondents involved with the operations and exporting, or possible exporting, of hardwood from SA.

Adequate time. The time for interviewing the respondents was staggered. Appointments were made to interview the specific people at a time selected by the respondents. All the participants' interviews were scheduled for at least an hour's duration.

The most important purpose of the data sourced from semi-structured interviews was for the researcher to gain new knowledge and, therefore, participants with considerable experience were

recruited as recommended by Fox and Bayat (2013:73). The inclusion of a participant in an interview required careful consideration of the following criteria:

Participants' understanding of the circumstances and conditions under which the wood industry operates, as well as its exports or possible exports. Current market indications were taken into consideration to guide this criterion.

Participants' relationship and ease with the interviewer (researcher). Sincere interpersonal relationships between the researcher and certain participants in a company had evolved over the previous two years due to the preliminary research undertaken at the company and, specifically, at the sawmill operations in Limpopo. Preliminary research was conducted after the completion of the initial literature review, in order to refine the problem statement and the research objectives. Visits to the company, the sawmill and the plantations, resulted in preliminary research which included observations as well as informal interviews, mainly in the form of discussions and explanations in explorative research circumstances. This procedure was necessary to understand the environment and the product, as well as for creating a basis for further research. Based upon this gained knowledge, it was possible for the researcher to ask the participants probing questions during the formal interviews without causing them any discomfort, in order to acquire valuable primary data.

Participant's knowledge and expertise on aspects that could potentially influence features in the decision-making process (as identified in informal discussions as well as the literature analysis).

Although qualitative research interviewing ideally is similar to a conversation, the important aspect of keeping the participant interested in the conversation was accomplished through the use of more open-ended questions during the interview (this interaction was still guided with an interview schedule to ensure that all the topics/themes were covered). An important advantage, according to Struwig and Stead (2014:102) of this less restrictive method of interviewing, is that it provides in depth data on the topic because it allows for the respondent to be probed during the interview by asking related questions. Probing during face-to-face interviews leads to more relevant and, in many cases, thicker data.

Every interview was conducted in the following way as guided by Nyathi (2008:54):

all the interviews were face-to-face,

permission from the participant was asked prior to the interview,

all the interviews were recorded and then transcribed,

the researcher made field notes and observations allowing an opportunity of noting any non-verbal signals.

The participants who were involved in the study were carefully selected and the demographic particulars of the chosen participants included forestry specialists, skilled people in the wood industry (management level), Operational National Key Account Managers from logistics companies (both national and international, Europe) as well as Logistics Coordinator/ Expert on Export (South Africa).

4.3 Document analysis

Heterogeneous data was not produced by the research, therefore documents that already existed, were also applied as recommended by Bryman et al. (2018: 274). The documents were selected with the following in mind:

Accessibility for viewing; available whenever needed for analysis; provided data regarding forestry and the hardwood industry (local and international), changes in demand for hardwood (local and international), demand for hardwood (local and international), suppliers of hardwood (local and international).

Relevance to the research topic; physical data through observation was collected and summarised differently, such as by Statistics South Africa, trade policies, trade agreements, tariff barriers, non-tariff barriers, export regulations, export cost structures, trade figures on SA exports and imports, as well for Germany, Netherlands and Belgium, SA economy and global economy,

The quality of the documents used in this research study was evaluated against the four criteria that are applicable to secondary data, as set out by Bryman et al. (2018: 274) because there are similar principles of secondary data that may apply to document analysis:

Authenticity

Credibility
Representativeness
Meaning

The public documents proved to be a great source of information and yielded a large amount of statistical information, as well as providing details of research already completed on hardwood and forestry. All the data was accessed through reputable and authenticated sources and was applied in the integration of information.

5. Empirical Results

5.1 Export to European countries from South Africa

The hardwood processing in Europe is still dominated by small and medium-sized sawmills indicating the value chain, as it is known in South Africa, not available, and organisations are therefore not in control of the production process. Total wood production in the European Union was approximately 470 million m³ in 2017. Sweden produced the roundest wood (73 million m³), followed by Finland (71 million m³), and Germany and France (producing 51 and 64 million m³) respectively.

According to Teischinger (2017), Europe relies on external suppliers of wood, of which China is the largest external supplier of timber products to the EU, contributing nearly 40% of all timber product imports. The UK is the largest importer of timber and wood furniture products from China, a total of 30%, followed by Germany (15%), France (14%), Netherlands (8%) and Belgium (7%).

Although China is still the world's top wood-products commodity chain, it has also become the leading importer of logs, due to the exports of wood-based products that basically tripled in volume, and exponentially increased so much in value in the last five years. Therefore, as Teischinger (2017) indicates, to meet the domestic and export demand, enormous amounts of raw hardwood are being imported from forestry countries such as SA. The estimation is (no real figures available) that China imports wood up to 20 million m³ of illegally sourced wood and wood products per year (Teischinger, 2017).

Over and above the imports from member countries of the Commonwealth of Independent States (CIS) of about 20%, the EU imports from Russia, the Ukraine and Belarus. These are primary-processed wood products such as sawn wood, plywood and logs. Log imports have declined from CIS countries over the last five years owing to steep log export tariffs by the Russian authorities, while focussing on the imports of sawn wood and plywood.

Close to 20% of the EU's imported timber products are from Southeast Asia. These imports are located in only a few EU countries, of which the UK is the largest importer, 25%, and the other five importers include the Netherlands, Germany, France, Belgium and Italy, together accounting for over 75%. The imports from other regions are Indonesia (€804 million), Malaysia (€629 million), Vietnam (€555 million) and Thailand (€186 million) (2017). These imports are mainly wood furniture and secondary processed wood products, as well as joinery products (produced domestically in the EU), mainly glulam and doors. The Netherlands and Germany, however, source significant volumes of sawn wood used for the manufacturing of window frames. The South-Eastern Asia's profile of the wood manufacturing industry has changed over the last five years using plantation species, including rubber wood and acacia, grown within the region, and a wide range of other species imported from elsewhere, such as eucalyptus from SA (Forestry SA, 2019).

In 2017, the EU imported timber products from Brazil, Argentina, Paraguay, Ecuador and Bolivia in Latin America with a value of €900 million. These products are destined mainly for France, Germany, the UK, Belgium and the Netherlands. The major component, over 95%, is hardwood, mainly from natural forests in the Amazonian region and comprises approximately sawn wood 32% and plywood 25%. Brazil's furniture industry is 2% of the total world furniture production (Food and Agriculture Organization of the United Nations, 2020).

The EU imports hardwood products from Central African regions into France, Italy, Belgium, Spain, the Netherlands, Denmark, the UK and Portugal. Imports consist primarily of rough sawn wood and veneers, and represent a very small percentage of the EU's total imports (Food and Agriculture Organization of the United Nations, 2020).

Before wood products can be exported to the EU, a due diligence system (DDS) must be in place to minimise the risk of putting illegal timber or derived products onto the market. The three elements that are important here, are the information regarding the wood's origin, the risk assessment, and the risk mitigation, which will be monitored by a 'monitoring organisation' providing the DDS. These organisations are comparable to certification bodies and recognised by the European Commission's national authorities, obligated to keep records regarding from whom the wood products were bought and to whom they are sold (Teischinger, 2017).

The lessening of illegal logging, as well as the establishment of sustainable forestry and forest management practices through cultivating governance and promotion of trade in legally produced timber, is maintained through wood products having to satisfy the terms of FLEGT (Forest Law Enforcement, Governance and Trade) or CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) which are considered to comply with the Regulation by Definition (so-called 'green lane'). SA has a FSC certification in over 80% of the commercial plantations already covering the legal requirements stipulated by FLEGT and CITES (Forestry Stewardship Council, 2019).

5.1.1 Various subcategories influencing the export to European countries

The total export value of wood products from SA was R28.9bn (2017) of which R8.026bn was hardwood. The major recipients of these exported products are Africa and the South African Development Community (SADC) member states. SA is part of the various favourable trade agreements that exist between the BRICS (Brazil, Russia, India, China, and SA) countries. Exports to the BRICS countries increased during recent years to R7 776 728 183 (2017) in wood and wood products, totaling R681 019 711 in solid wood (Forestry SA, 2019).

The export markets of Indonesia, Vietnam and China have grown exponentially over the past few years. These countries are harvesting wood from countries with FSC forestry products to use in the further production process of furniture, veneer, plywood or laminated floors. This fact was also indicated by Participant 2, because The Company is already exporting, on a small basis, to China and Vietnam.

The subcategories, influencing export opportunities to the three EU countries, Belgium, Germany and Netherlands as the possible countries of choice, are:

Changes in GDP of the targeted countries

The changes in the GDP of each of the targeted countries in the EU indicated an economic growth. The European market is showing a steady growth in GDP of close to 2% p.a. The supply of timber products per country is slow or even decreasing according to the Centre for Promotion of Imports (2020). They continue by adding that the plantations are still at a relatively young production stage and most countries rely on imports. Producing countries aim to promote value additions to existing wood products. The people are willing to spend money on alternative products, more expensive substitutes, or luxury goods. The targeted product is a durable quality product and may be more expensive.

The major competitors in targeted countries

Europe is recognised as the largest market in the world for conventional timber products and sustainable tropical timber products. However, it has the world's strictest market access and buyer requirements (What competition do you face on the European timber market, 2020).

The EU Timber Regulation (EUTR)

EUTR may hinder market entry. Implementation of the EUTR introduced stringent requirements for the import of tropical timber into the EU market. This regulation is to ensure sustainability and traceability throughout the supply chain. The FSC certification (Forestry Stewardship Certification, 2019) shortens this process. Added-value products versus primary products will also provide export opportunities in the EU market. Products such as plywood, garden furniture, doors and frames, although much more elaborate with more detailed technical and design requirements than sawn wood, decking and mouldings, are in demand. The market for added-value products is more complex in terms of finding the right buyer and proving supplier competence. It is also a vast market with a larger potential profit (What competition do you face on the European timber market. 2020).

To increase their buying power, large importers are becoming even larger and stronger through merging smaller companies into much larger ones. This practice has led to an increasing trend in which a

few large players dominate the timber market in Europe. Because each player is responsible for such a large market share, these companies are able to dictate far-reaching demands. As a result of this horizontal consolidation, exporters have fewer alternatives in terms of selling their products and have no choice but to comply with the long list of demands made by these large importers to retain a foothold in the market (Teischinger, 2017). Growing demand in emerging economies as well as diminishing resources, has the effect that it will become more difficult for European buyers to find suppliers.

The total import values into the EU have increased from €32,703 million in 2014 to €34,127 million in 2015. The largest part of the import (71%) is intra-EU trade. This means that countries within the EU are importing from other EU countries. Of the total import, 16% comes from developing countries, while 13% comes from the rest of the world. Countries such as France, Belgium and the Netherlands are clearly the frontrunners. (Centre for Promotion of Imports, 2020).

6. Findings

6.1 Economic growth in export country

To identify the possible export countries for wood products, an indication is needed regarding whether the total market of each country is large enough and/or if there is relative growth possibility in the market. In this research study, the countries selected are Belgium, Germany and the Netherlands. The growth in GDP per country over three consecutive years, as well as the type of wood products, is indicated.

Market size per country = sum of average production per country, average imports per country and average exports per country.

$$Ms \stackrel{\text{def}}{=} \sum \mu p, \mu m, \mu x$$

Ms: Market size, C = Country, y = year, p = production, m = import, x = export, μ = average

$$\mu p: \text{Average production (3 years): } \frac{p^{y1} + p^{y2} + p^{y3}}{3}$$

$$\mu m: \text{Average import (3 years): } \frac{m^{y1} + m^{y2} + m^{y3}}{3}$$

$$\mu x: \text{Average export (3 years): } \frac{x^{y1} + x^{y2} + x^{y3}}{3}$$

Calculate Average Market size per country: $\mu p + \mu m + \mu x$

Average Consumption per country: (3 years)

$$*\mu c = \frac{c^{y1} + c^{y2} + c^{y3}}{3}$$

*μc = Average consumption

cⁿ: Consumption year 1

The average market size per country was compared with the average consumption per country.

6.2 Key hardwood products imported to EU.

With reference to the increase of the production value of wood industries in the EU of more than 48% greater than the EU's sawmill output, the real need for logs and sawn wood was indicated. However, the economic growth changes indicated a further potential increase in spending.

Average percentage change in economic growth: (average 3 years)

$$**\Delta\%EG^{y(n)} \stackrel{\text{def}}{=} \frac{\Delta\%EG^{y1} + \Delta\%EG^{y2} + \Delta\%EG^{y3}}{3}$$

**Δ%EG^{y(n)} = Average Change (Δ) Percentage (%) in Economic Growth (EG) in year (y(n))

The difference between consumption and % change in growth will indicate whether the consumers will spend more money on wood products if there is a change in the economic growth of the country. It will also reveal the connection between the consumption of timber, the increase in demand for wood and economic growth.

The average imports and exports per country (Belgium, Germany and the Netherlands), will indicate the consumer needs not satisfied by local production, when the relationship between imports and

consumption is determined. The relationship between exports and consumption will indicate the availability of local production as a % for exporting for these same three countries.

There are seven importing countries identified as the major importers to Belgium, the Netherlands and Germany. Imports to the total of 60% are from either developed or developing countries, the remaining 40% are from the EU countries and various other countries. African countries such as Cameroon, the Democratic Republic of Congo and Gabon, recently gained entry into the EU market, due to lower prices and lower labour costs (Centre for the Promotion of Imports from Developing Countries, 2019). This latter fact is a revealed competitive advantage.

6.3 Export procedures

When trading with another country, various variables must be taken into consideration. It is important first to gather information on the country of destination, specifically referring to aspects such as the geography.

6.3.1 Transportation

Transportation is relevant when considering European countries as export opportunities because it may be a restricting feature. SA is a vast distance from all the major markets such as the European, Asian and Japanese markets. Three variables influence transportation: $T = v_1 + v_2 + v_3$

Variable 1: Distance and Transport Cost

The distances were calculated from Port Durban to the main port of the countries being exported to, or the nearest port to the landlocked countries. All three countries are coastal countries with possible import/export harbours: Antwerp in Belgium, Hamburg in Germany, and Rotterdam in the Netherlands. Quotations for the shipment of a container from Durban harbour to either Belgium, Germany or the Netherlands were obtained from main shipping lines. Based on these quotations, the average shipping cost for each country can be calculated. Only 40 ft containers will be used holding either sawnwood to the volume of 36m³, or logs to the volume of 28m³. In Table 1 below both the transport cost and total volume per container are indicated from SA to Belgium, Germany or the Netherlands respectively. The total sea freight transport and all related transport costs, such as customs clearance charges for import and export are included.

Table 1: Total Sea freight per 40' container

Port	Antwerp, Belgium	Hamburg, Germany	Rotterdam, Netherlands
Durban Harbour	R57 406.00	R59 879.41	R68 113.92

Source: Main Shipping Line (2020)

Variable 2: Trade tariffs, trade restrictions, trade barriers, custom duties, VAT and timber regulation

SA is not only a developing country, but also a participator in a trade agreement with the EU. Therefore, no trade tariff is paid specifically for all exports to Belgium, Germany and the Netherlands.

No custom duty is paid on imports, however, VAT of 21% is payable on all imported products.

The FSC certification awarded to almost 80 % of the South African wood suppliers is sufficiently comprehensive to meet the EUTR and CITES requirements. Fumigation, as a precautionary measure, which is requested by many countries under the International Standard for Phytosanitary Measures (ISPM) 15 rules, is also directly addressed by the treatment of wood required for the FSC certification.

Variable 3: Agency Fee

The total transportation costs (t) to the place of delivery will ultimately be calculated after taking into account the agency fee and associated costs. Table 2 below indicates the possible agency fees per export volume.

Table 2: Agency fees per volume

Description	Expected fee
Agency Fee	1.5% of total value
Road transfer to port	R 5 152.05 p/km
Rail transfer to port	R20.20 p/km rail
Customs Clearance Document	Fixed amount - R450
Communication Fee	Flexible
Destination Bill Fee	Fixed amount - R150
Pick Up Charges	Fixed amount - R480
EDI Fee	R80.00
Cargo screening fee	Fixed amount - R100
Terminal Security Fee	Fixed amount - R50

Source: Research Participants

The organisation may choose not to export directly but will make use of a Freight Forwarding Agent who will act on behalf of both the buyer and the seller.

Therefore (T) Transportation cost: $T = v_1 + v_2 + v_3$

6.4 Covid-19

In December 2019 a novel strain of the Coronavirus, Covid-19, was identified in the city Wuhan, in the province of Hubei in China, a major industrial and transport hub with 6 000 foreign companies having investments there. The initial Covid-19 cases resulted in thousands of Covid-19 infections within and outside of China with more than 90 countries affected. In SA the first case of Covid-19 was confirmed on 5 March 2020. On 12 March 2020, the World Health Organization (WHO) announced the virus outbreak as pandemic. By the end of June 2020, the Covid-19 cases worldwide exceeded 10 million. The outbreak resulted in major life losses with the number of people who tested positive for Covid-19 worldwide confirmed as 3.94 million, those who had recovered as 1.32 million and a total of 275 000 deaths (09/5/2020). SA's total confirmed cases, on the same date, were 8 895, with 3 135 recoveries and 178 deaths. Various health guidelines were provided on lifestyle adjustments to conservatively keep people at a social distance from each other (Impact of Covid-19 on the South African economy, An Initial Analysis, 2020).

The critical direct and indirect impact of the Covid-19 virus on the operations and value chains, resulted in a new, unknown, changing competitive landscape. The economy, both globally and locally, has been severely affected in three ways:

- production,
- supply chain, including market disruption, and
- financial impact on both businesses and financial markets.

It is important, therefore, to develop an understanding of the effect of the impact of the Covid-19 virus, as well as the strategic implementation of new and resourceful plans for obtaining and using the available resources to achieve the goals (Nickels et al., 2019:173).

7. Outcome and recommendations

7.1 Outcome

As indicated previously, Belgium's market size for hardwood products is greater than the consumption indicating an over-supply, whereas Germany's supply and demand are exactly equal. The Netherlands' demand for wood is greater than the supply. However, no definite results could be identified between a change in % economic growth and change in wood consumption. The % specific wood products imported to Belgium, Germany and the Netherlands, as well as the % of said products from China, India and Vietnam, may be identified. Once the price of a product to be exported is determined, various other costs are added, such as the Agency Costs and the transportation costs. The final price is then determined. The logistic cost calculates between 55% and 60% of the price and may be even higher. SA is in bilateral trade agreements with the EU, resulting in no trade tariffs, trade restrictions or trade barriers. The normal custom duties and taxes need to be paid on all imports to EU countries.

7.2 Recommendation

Although all the European Countries are possible export markets for wood, it is recommended rather to concentrate exports of wood products to the Netherlands. However, while this market exists, it is serviced by a range of other countries, such as China, Vietnam and India. The wood produced in these Asian countries does not meet the requirements set by the EUTR of the EU countries.

References

- African Development Bank. (2018). Site Map. Available from: <https://www.afdb.org/en/countries/southern-africa/south-africa/south-africa-economic-outlook> (2017:256)
- Babbie, E. & Mouton, J. (2014). *The Practice of Social Research*. 15th Edition, Cape Town: Oxford University Press.
- Bryman, A., Bell, E., Hirschson, P., Dos Santos, A., du Toit, J., Masenge, A., Van Aardt, I. & Wagner, C. (2018). *Research Methodology Business and Management Contexts*. 2nd Edition. Cape Town: Oxford University Press.
- Cavusgil, S.T., Knight, G. & Riesenberger, J. (2014). *International Business: The New Realities*. 3rd Edition, Georgia, USA: Pearson.
- Centre for Promotion of Imports. (2020). Site Map. Available from: <https://www.cbi.eu/>.
- Creswell, J.W. & Poth, C.N. (2016). *Qualitative Inquiry and Research Design*. 4th Edition, SAGE Publications, Inc, California
- Department of Agriculture, Forestry and Fisheries. (2018). Site Map. Available from: <http://www.daff.gov.za/daffweb3/Explore-DAFF>.
- Department of Trade and Industry. (2018). Site Map. Available from: <https://www.thedti.gov.za/>.
- Food and Agriculture Organization of the United Nations. (2018). Site Map: Available from: <https://www.fs.fed.us>.
- Food and Agriculture Organization of the United Nations. (2020). Available from: <http://www.fao.org/faostat/en/#data/FOAcce>.
- Forestry South Africa. (2018) Site Map. Available from: <http://www.forestry.co.za>.
- Forestry Stewardship Council (FSC). (2019). Site Map. Available from: <https://fsc.org/en>.
- Fox, W. & Bayat, M.S. (2013). *A Guide to Managing Research*, 1st Edition. Cape Town: Juta.
- Impact of trade disrupting Covid-19 on South African Business. (2020). Available from: <https://www.pwc.co.za/en/publications/impact-of-trade-disrupting-covid-19-on-sa-business.html>.
- Jean, S. & Resheff, A. (2017). Why Trade and What Would be the Consequences of Protectionism. Site Map. Available from: [http://www.cepii.fr/docs/files/publications/research_reports/Jean-Reshef_2017_EPRS_STU\(2017\)603240_EN.pdf](http://www.cepii.fr/docs/files/publications/research_reports/Jean-Reshef_2017_EPRS_STU(2017)603240_EN.pdf).
- Kowalska, M., Donatello, S. & Wolf, O. (2019). Revision of the EU Ecolabel criteria for Paper products. European Commission. *JRC Technical Reports*. Available from: https://ec.europa.eu/environment/ecolabel/documents/tissue_paper_tr_2019.pdf.
- Main freight location setter. (2020). Site Map. Available from: <https://www.mainfreight.com/global/en/global-home.aspx>.
- Nickels, W. G., McHugh, J. M. & McHugh, S. M. (2019). *Understanding Business*. 12th Edition, New York: McGraw Hill.
- Nowak. (2018). Defining Globalization. Site Map. Available from: <http://www.clmeconomia.jccm.es/pdfclm/scholte.pdf>.
- Nyathi, D.D. (2008). *The impact of the proposed solvency margin requirements for South African short-term insurers on competitiveness*. (M Com Dissertation, University of Johannesburg).
- South Africa National Disaster Declaration – now what? (2020). Site Map. Available from: <https://www.lexology.com/library/detail.aspx?g=820ce52a-f2ff-4f52-81e0-325a7d1650b7>.
- South African Reserve Bank. (2019). Site Map. Available from: <https://www.resbank.co.za/Research/>.
- South African Reserve Bank. (2020). Site Map. Available from: <https://www.resbank.co.za/Research/>.
- Struwig, F.W. & Stead, G.B. (2013). *Research Planning, Designing and Reporting*. 2nd Edition. Cape Town: Pearson.
- Teischinger, R. (2017). From Forest to Wood Production – a selection of challenges and opportunities for innovative hardwood utilization. *Conference Proceedings: 6th International Scientific Conference on Hardwood Processing*. 27 September 27, Lahti, Finland.
- The Unseen Impact of Non-Tariff Measures: Insights from a new database. United Nations and The World Bank. (2018). Available from: https://unctad.org/en/PublicationsLibrary/wb_unctad_2018d1_NTMs_en.pdf.
- Tolstykh, V.I. (2014). **Internationalization**. *Value Inquiry Book Series*, 276: 293-294.
- Understanding the WTO agreement on Sanitary and Phytosanitary Measures. World Trade Organization. (2018). Site Map. Available from: https://www.wto.org/english/tratop_e/sps_e/spsund_e.htm.
- UNECE. (2018). United Nations Economic Commission for Europe. Site Map. Available from:

<https://www.unece.org/info/ece-homepage.html>.

Welman, J.C. & Kruger, S.J. (2004). *Research Methodology: for the Business and Administrative Sciences*. 2nd Edition. Cape Town: Oxford University Press.

What competition do you face on the European timber market? (2020). Site Map. Available from:

<https://www.cbi.eu/about/>.

World Bank. (2018) Site Map. Available from: <http://www.worldbank.org>.
