



A Comparative Analysis on Determinants of Performance of the Palm Oil Sector in Dungu and Wamba Regions in the Democratic Republic of Congo

Shindano Mutundu¹, Benoit Katula² Hubert Tapatondele³ Akanangana Wak'iemane⁴

^{1,2,3} **Université de l'Uélé (UNIUELE)**

⁴ **Assistant Lecturer at ISC/ISIRO**

ABSTRACT

Agriculture has been the key sector for Africa's sustainable development and poverty reduction. In Congo for instance, there has been a major interest and focus on how to make the palm oil sector sustainably and economically viable. This study aimed at making a comparative analysis on determinants of performance of the palm oil sector in Dungu and Wamba territories, in the Democratic Republic of Congo. The main constructs interrogated include; the nature of transactions, the criteria of price determination and fixing, the impact of seller behavior on their specialization, product adaptation to market needs as well as the business competition in the palm oil sector within the two territories. The study used analytic comparative research method, direct observation and interview schedule. A sample of 148 people was scientifically selected from the two regions and data was analyzed and summarized in tables. The results show that the palm oil sector in the territories of Dungu and Wamba presents considerable similarities and differences in the marketing of palm oil products. Some of the research findings include; that there exists a significant number of traders with interest in the palm oil business in both regions though most of them are focused on a single product, that actor in the palm oil business are keen on quality and have tried to align their products and the pricing to market needs, one of the major differences observed is on the market day frequency, structure and locational arrangements in the two regions. Further the research found out that weak competition in the palm oil market in the territory of Dungu has an effect on the price and the organization of the market while the effect is not as significant in Wamba. The study recommends that road networks be improved in the two regions and that there is need for improved regulatory policies that can promote the palm oil industry for maximum utilization of its potential towards economic development of the two regions.

Ke words; Determinant of Performance, Palm Oil Sector

INTRODUCTION

Since decades, the Democratic Republic of Congo (DRC) lost the place it has occupied among other nations with regard to the market of the raw materials in general and the agricultural products in particular. Its performance in the foreign market keeps diminishing, and even the production of the palm oil is far from satisfying the daily needs of the local population (Hoof, 2011). Omasombo *et al.* (2011) interrogated the socioeconomic history of the DRC in general and that of Haut-Uélé Province in particular and affirmed that coffee has been the main cash crop. However, diseases such as coffee wilt disease and the civil conflicts that followed each other in DRC led to the decline in production of this product since the end of the past century, and has since been substituted by palm oil production (Derderian & Schockaert, 2012; Kalonji-Mbuyi, Tshilenge-Djim & Saiba, 2009).

This study sought to analyze how the trade of palm oil takes place in the territories of Dungu and Wamba. The authors analyzed the nature of transactions, the criteria of fixing the prices, the impact of seller behavior on their specialization, the adaptation of the product to the needs of the consumers as well as the business competition in the palm oil sector.

RESEARCH METHODOLOGY

The study was carried out in the territories of Dungu and Wamba. The choice of these places of study was justified by the care to analyze the behaviors of the actors in the marketing of the palm oil in a

forest zone (Wamba) and a savanna zone (Dungu). This study covered the period from January to December 2014. The study used analytic, comparative and inductive research methods and used direct observation and interview schedule to collect data from the sampled regions. This study used a sample of eighty eight (88) in Wamba and sixty (60) in Dungu as shown in Table 1 and Table 2 respectively.

Table 1: Distribution of research of Wamba by category and chiefdom

N°	Research by chiefdoms	Producers	Traders	Custodians	Total
1	Bafwangada	5	4		9
2	Mabudu-Mabero	4	4	1	9
3	Bafwakoy	5	3		8
4	Makoda	11	3	1	15
5	Cité Durunga (Wamba Centre)	5	3	2	10
6	Mahaa	11	3		14
7	Malika-Toriko	5	4		9
8	Timoniko	5	8	1	14
Total		51	32	5	88

Table 2: Distribution of research in Dungu by category and groups

N°	Research by Group	Producers	Custodians	Kadhahuiles	Retailers	Total
1	Bamokandi	7	1	6	3	17
2	Ngilima	9	3	8	5	25
3	Uye	7	2	5	4	18
Total		23	6	19	12	60

RESEARCH FINDINGS

Transactions

In Dungu and Wamba regions, cyclists called *Kadhahuiles* buy the palm oil from producers of different chiefdoms and sell it to wholesalers and retailers. Due to lack of accessibility to different chiefdoms as a result of bad roads and less quantities to transport the custodians and the wholesale traders await their supplies from *Kadhahuiles* in the big towns. After the oil has been stocked, the businessmen then supply it to the custodians for delivery to other exterior markets. The traders' preference in the supply of palm oil to the custodians is justified by the importance of the quantities offered for delivery towards the external markets like Watsa, Aru, Bunia, Ariwara, Beni and Butembo.

The different transactions in the palm oil sector in the examined regions are illustrated in Figure 1. From the Figure, various players intervene directly in the circuit of marketing the palm oil in Dungu and Wamba regions. However, the number of transaction differs from one market player to another.

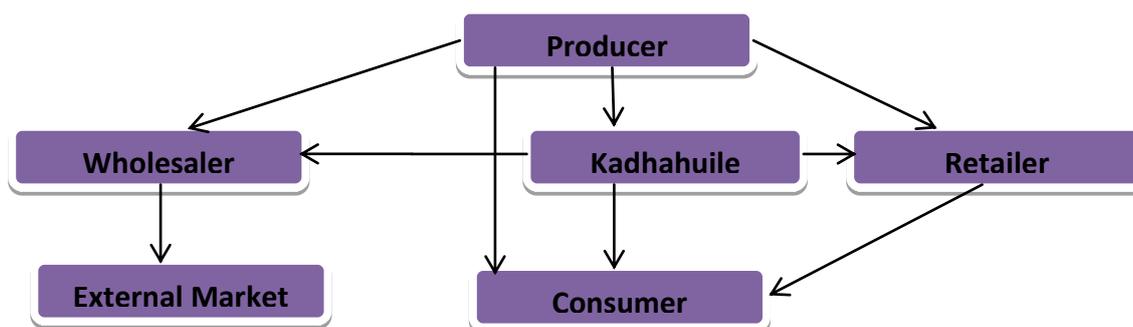


Figure 1. The marketing of palm oil circuit in the territories of Dungu and Wamba

Table 3 shows the maximum number of possible downstream transactions of every actor. From the table, it is observed that the number of transactions increases as the distance from the producer increases. That is seen in all the retained territories. The downward flow is the exact opposite situation.

Table 3: Different transactions by the category of the actors of palm oil sector in the territories of Dungu and Wamba

N°	Type of sellers	N° of those intervening	
		upstream	downwards
1	Producers	0	4
2	Wholesalers	2	1
3	Kadhahuiles	1	3
4	Retailers	2	1

In the territories of Dungu and Wamba, various units of measure of sales of the palm oil was observed. There are containers of 20, 15, 10, 5, 3 litres; the cottages of 5, 6, 7 and 8 cans of 20 litres; 200 litres tank and 75 cl bottle. Table 4 presents the units of measure of sale at every actor's level and their prices in the examined territories. From the table, Wamba territory has eleven (11) units of measure of sales while Dungu has only two (2). Besides, the number of the measuring units differs from one actor to another. Producers of the palm oil in Wamba territory mostly sell it to retailers and that is why the prices of the units of measure are the same for all the actors. The table further shows that selling price of the palm oil increases as the number of transactions (intermediaries) increases. In a similar study Fraval (2000) observes that regardless of the unit of measure used, the number of transactions in the sector explains in a particular way the final cost of the product, given that, the more the transactions, the more the profit margins accumulate to form the price to the consumers.

Table 4: The palm oil selling price by category of the actor in the territories of Dungu and Wamba (Franc Congolais)

Territory	Unit of measure	Producer	Wholesaler	Kadhahuile	Retailer
DUNGU	20 L can	23.325,00	39.125,00	26.769,23	30.100,00
	75 Cl bottle	800,00			1.000,00
WAMBA	20 L can	6.540,25		7323,08	6.540,25
	15 L can				4.532,35
	10 L can				1.988,24
	5 L can				1.563,73
	3 L can				880,39
	75 Cl bottle				481,37
	Cottage of 5 cans of 20 L			36.615,38	
	Cottage of 6 cans of 20 L			43.923,08	
	Cottage of 7 cans of 20 L		138.495,00		
	Cottage of 8 cans of 20 L		158.280,00		
	200 L tank		197.850,00		

The Organization of the Market

The organization of the market was analyzed in various levels; according to the market days that explained the circuit followed by a product in a given region, and according to the market space which equally plays a role in marketing of the product (Terpend, 1997). In the Wamba territory, the market is organised according

to days and space. Organization according to the market days in this territory included; the daily market, the weekly market and the market after every fifteen days. The daily market in all the chieftaincy was located in the estates, along the roads, or in front of the plots. This type of a market was for smaller quantities of the palm oil just for daily consummation. The weekly market was the most frequented in the territory of Wamba. It is a day of the market in which everyone went to the market to sell large quantities of the product, or either to buy valuable goods and/or the necessary goods (clothes, salt, sugar, shoes, radio, etc.). It is done in chiefdoms: Malika, Mabudu-Mabéro, Bafwanganda, Bimomiko, Makoda, Malika-Toriko and Bafwakoy. The market after every fifteen days was organized twice a month. For the residence of Wamba territory, this market is a place of meetings, where two, three or four chiefdoms come together to display their products and make it possible for their residence to buy luxurious goods which sometimes are not available in the weekly markets. This type of market is organized in all the chiefdoms except Mahaa and Bafwakoy territories.

The Dungu territory on the other hand has daily markets where the buying and selling of the palm oil is done every day. In this territory, there is easy accessibility between the sellers of the palm oil and the suppliers or the consumers. This makes the marketing of the product easy as the means of transportation is readily available. Moreover, the palm oil produced or bought is not consumed in the territory but a larger quantity is carried by vehicles towards Ariwara, Aru, Watsa, and even to the neighboring countries (South Sudan and Uganda). Even if being a big consumer of the palm oil, the inhabitants of the territory of Wamba export this product towards the provinces of Ituri and Nord-Kivu, and even Uganda.

The Operators' Behavior

The economic agents of the palm oil sector are the producers, transporters, retailers, consumers, custodians and traders. In the territory of Dungu, 30% of the actors of palm oil sector mix their commercial activities with others and 70% focus on a single product. In addition to that, 45% of those interviewed said they store their oil in 20 litre oil cans and 55% said they store the palm oil in plastic bags. In Wamba territory, it is known that the cyclist carriers (Kadhahuiles) sometimes deposit some amount of money with the producers before the exact buying of palm oil. In other situations, the transporters sometimes also ask the producers to give them the product on credit which they pay later through the delivery of palm oil. The transporters also carry out a barter trade with the producers in exchange of the product.

Further, it was found out that a majority of the participants of the sector (70%) just carry out one activity, which is the production of and/or the marketing of palm oil. A minority (23%) combine this activity and others also. The absence of a combination of activities in the examined territories does not explain any worry of specialization contrary to the observations of Terpend (1997) that, the sellers of palm oil who have combined the sale of this product with other products offer commodities of the same quality and conserve them in the same condition just like those who do not combine the activities. It was further noted that a large majority of those involved in the multiproduct is made up of the traders who supply the territories of Dungu and Wamba with manufactured products and other agricultural products. They then take with them the palm oil to the Provinces of Ituri and North-Kivu, even to South Sudan and Uganda.

Price and Determination

The study aimed at analyzing the criteria for determining and fixing of prices in the palm oil sector of the two regions. This focused on constructs like the time and season, transport, quality, amount in supply, the origin among other factors. Table 5 summarizes the average price of an in Dungu and Wamba territories. From the Table, it is evident that that fixing of palm oil price in the territories of Dungu and Wamba is in order with the final transactions done from the producer to the consumer and the market price. Generally, the prices in Wamba territory are much less than those of Dungu. This is due to the fact that Wamba which is located in the forest zone, is a big producer of palm oil and Dungu which is located in the savanna zone, is essentially the consumer of this oil, depending greatly on the neighbouring territories (Niangara and Rungu) for its supply. The researchers further note that the price of palm oil in Dungu and Wamba territories changes from one market to another, as well as from one point of supply to another. In Wamba territory, the high prices in certain chiefdoms are caused by the presence of mining stations as in the case of Malika-Toriko and Mabudu-Mabero chiefdoms.

Table 5: The price of the 20 litres of palm oil can by category of actors (FC)

Territory	Producer	Kadhahuile	Retailer	Wholesaler
DUNGU	23.325,00	26.769,23	30.100,00	39.125,00
WAMBA	6.540,25	7.323,08	6.540,25	19.785,00

During the research, it was observed that there was no collaboration or any particular relation between different actors of the palm oil sector in the examined territories. It was further noted that, there was no formal or verbal contract, and that the delivery of palm oil was done without taking into account the precise clients. The lack of organization between the actors of this sector made them not to negotiate in the name of the entire supply contract or the sale of the product or by buying in groups (Dugué *et al.*, 2006). The authors further noticed the absence of discussion on prices during the sale in the markets. It is only the seller's skill to call the customers or rather personal friendship influenced the sales. The prices were fixed from the common consent between the parties during the convention of the market. Moreover, the number of sellers was not a factor that significantly influenced the prices.

All that is mentioned above proves sufficiently that there was no situation of monopoly in the territory of Dungu on the palm oil market. This is to say that the competition does not have a negative impact on the price and organization of the sector. In contrary, a huge competition was observed in the big market of palm oil in Wamba territory. This competition was among the traders and custodians, but not among the producers. The competition is easily seen when there is lack or less production by the advanced practice on the said product as observed also in the cattle market of Abidjan (Terpend, 1997; Pays, 2000; Dugué *et al.*, 2006). This competition between the wholesalers leading to a higher price when the palm oil production is low is a situation proposed by the actors. In this case, as stated by the theoretical neoclassic analysis, the competition leads to gain, as the economic efficiency source leads to both the lack of over profiting and ultimately leads to a just distribution of the created values in a gainful prices for the basic producers (Fraval, 2000).

The Supplying Mode

During the research, it was observed that the means of transport from the supply areas to the markets in the territories of Dungu and Wamba were through the use of bicycles, motorcycles, sometimes human carriers and the vehicles. The bicycle and the motorcycle were the most commonly mean of transport due to their ability to penetrate the landlocked areas, especially towards the territories of Niangara and Rungu. However, the transportation by a bicycle or a motorcycle had its limitations in terms of limited capacity. The study further noted that the number of oil cans carried varied from one carrier to another, the state of the road, the amount bought by each carrier as well as the physical capacity of the carrier. The bicycle carrier has a capacity for 2 to 7 palm oil cans; on the other hand, the motor cycle carrier could manage 5 to 10 cans in a journey. A human carrier is used to evacuate only small quantities of the palm oil. The vehicles, on the other hand, do not reach all the chiefdoms due to poor road conditions. It was further noted that the palm oil in Dungu territory comes from the territories of Niangara, Rungu and Dungu itself. The territory of Wamba on the other hand, was supplied by its own chiefdoms.

The adaptation of the product according to the consumers' needs

When necessary, the adaptation is made on the basis of quality, price and packaging. Wamba territory, through its chiefdoms, produces a good quality of palm oil. This is then sold to the buyers at a good price. This oil is packaged and sold in 75cl bottles and 3, 5, 10, 15, 20 litre cans. Each of these units of measurement having its price, the consumers, according to their ability to purchase, have the possibility of buying them (Terpend, 1997). It is important to note that if the sold product is well adapted to the needs of the consumer and especially if the adaptation is good the sales will be high. On the contrary, if the product does not correspond to the needs of the consumer, it will be less or not important at all (Terpend, 1997).

The research noticed that when a buyer (consumer) comes without a container and he or she buys a small quantity, the seller gives him or her a container. This is proof, on one hand, of a good collaboration between the seller and the buyer; and on the other hand, of the spirit of service in the

palm oil sector within the Dungu territory. In addition to that, these territories supply two qualities of palm oil: the “Kado” and the “Super”. The “Kado” is one sort of palm oil with a pasty form. It is normally used in the manufacture of soap. The “Super” is a light oil. It is mostly used in the market for food consumption.

CONCLUSION

From the research findings it was concluded that there exists several differences and similarities in the palm oil sector in Dungu and Wamba territories. The approaches to the marketing of the palm oils products between these two rural zones are similar. Several factors that affect the palm oil sector were also identified for instance the price of the palm oil products increased as the distance from the producer to the end market increased. This explains why the prices of the palm oil were found to be generally high in Dungu territory than Wamba. The variation in road conditions and networks also explains the variation in the prices in the two regions. From the observations, it was also concluded that there exists a significant number of traders with interest in the palm oil business in both regions though most of them are focused on a single product. It was also concluded that those transaction in the palm oil business are keen on quality and have tried to align their products and the pricing to local needs. One of the major differences observed is that while the palm oil market in Dungu territory happens on a daily basis and is more structured in terms of market locations, in Wamba territory the market is periodical and the market locations are not as structured. The research further conclude that the weak competition in the palm oil market in the territory of Dungu has an effect on the price and the organization of the market. In the contrary, a strong competition was observed between the wholesalers in the territory of Wamba. This competition between the wholesalers does not affect the augmentation of prices but only if the product in low supply.

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