

Impact of the Management of the Food Diets on the Revenue of a Public Firm: Case Study of SNCC-North Kivu

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1. Introduction

In our country where firms emerge more and more, a couple of possibilities break out: either management positive progresses or decreases. The first is seen in industrialized countries where augmented value is quick growth whereas in developing countries Net Interior products decrease more. The firms firstly have a social advantage, and a sure social being. Its poor management in general and that of the stock in particular would excite the aversion of its customers and consequently the loss of market. A society will not be satisfied with its benefits as if its politics of management is very efficient and innovative satisfying people's needs. [(1). p.165]

According to the management, management politics of stocks is very important to entries, we focus on warehouses than on nonstockages for outgoing. This necessitates an educated personnel for the matter, regulations of adequate security and maintenance of one appropriate logistic chain. What reinforces the faithfulness of firm and consumer is stopped when stockage mechanisms become a bit viable.

Thus, we can wonder about: stock management policies applied to SNCC/Goma, their impact on the organization and income of governmental establishment; stocking of logistics of food diets is-it to respond to customers 'needs, does it exist a correlation between the entries and the outgoing.

When FIFO methods for nondestructive products and LIFO for perishable products would be of the application at SNCC/Goma. They would have a positive impact on the organization and issue of firm.

The logistics of stock of food diets would be efficient and would respond to the needs of customers. It would have a positive correlation between inputs and outputs of food diets.

We would like, through the present paper, provide a reliable solution to the stocks management of customers in the store, in their water transport services in a governmental society. Checking how this management influences the revenue of the society.

In our investigation, we have applied statistics approach on which we have calculated the averages and statistics

parameters; investigating technique from a questionnaire which allows having our statistics that have been used in our statistic methods. We, similarly, took into account documentary instrument to form the theoretical framework of the present work.

2. Theoretical Framework

In the so-sub point, we would like to provide some consistent explanations of some key-points related to our topic.

a) Management

It's a science allowing to determine the combustion that is more satisfiable for the revenue and productive thanks to materials and human resources in the organizations [(2), p. 542]. There exists financial management, human resources management and material management. For Salam, material means are sources of revenues and human resource plays positive role for means to reach needed result.

b) Stocks management

To manage the stock, we may manage discontinuing flux of providing and relatively continuing flux of consumption [(3), p. 148]. In an enterprise, this desertion is explained by stocks that depend on customers. Stock is a physic accumulation of goods waiting to be oriented where distribution should be, or personnel for the consumption (home) [(3), idem]. There exists several types of stocks: active stock, protection stock, security stock, recuperation stock, calling-up stock, maximum stock, dormant stock, dead stock. Stocking encounters foreign tools difficulties which attack and determine stocked quantity (destructive animals, rats, etc...). Production measures need to be taken against those destructive animals [(4), p. 124] and the production of food diets against insects. To avoid the destruction a deep control of dirtiness should be taken into account around and inside the warehouse (stock). Care on the environmental conditions of materials and houses (rooms), holes, walls, ceilings, floor, etc should be under consideration. Responsible for stores (warehouses) must be able to identify insects which infects stoked diets to evaluate the destruction, the speed with which they are presupposed to spread over.

c) Food diets

Food diets are products what the first usage consists of total destruction, it is also food [(5), p. 258], these diets are stored in an enterprise that, according to Antoine [(6),

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p. 81], is an economical unity of production of properties or services needed for buying. The regulation of 17th July 1975 related to accountancy and annual counts distinguishes:

Private firm (company) initiated by a businessman of private law having a physique personality.

Governmental (public) firm is moral personality controlled by the government and develops its activity in industrial domain and commercial producing goods and services destined to the buying [(7), p. 232].

Lunel [(8), p. 67] distinguishes:

- State enterprise: this one is for partner only.
- “Regie”: This one has a separated budget and is then considered as a financial entity. For the rest, namely what is concerned particularly a private entity, it functions freely. It is for instance DGRAD, RVA, mixed economy society or para-etatic: this form of firm is adopted particularly to make public firms benefited private enterprise benefits and provide a very high speed that does not allow governmental firm. It is the case of SNEL, the objective of our study.

The goal of SNCC/Goma is summarized in two aspects: commercial and social aspects. The first resides on stocking, changing and discharging of goods and their expeditions due to the payment of a price. The last necessitates to assure the displacement of personnel and their property on Lake Kivu thanks to special engines [(9), archives of SNCC]

3. Material, Methods and Results

3.1. Collect and analysis of data in the firm

In the present sub point, we will study according to collected data on the field and goods appearance, their management of stock influences on firm outcome. Our research focuses on two food diets namely flour and beans which are frequent and important diets.

3.1.1. Inputs for stocking

Flour and beans are food diets that flux are permanent in SNCC/GOMA because they provide the responses to a fundamental need, they are consumable. From the arrival of goods at the port of SNCC, stock keeper, pointer and customer find baggage, pieces, package state, nature and quantity before storage. Thus, transport letter (TL) is signed, for two parts(stock keeper and customers). This letter signifies that the delivery; on the contrary, this one pays the amount mentioned at LT Cashier of the society.

Chart No. 1: Quantities of food diets received in the warehouse

Years	Flour in tonnes	Beans in tonnes
2007	580	400
2008	800	520
Total	1380	920

Source : Commercial activities reports

For these two food diets, SNCC has received a little quantity in 2007 as in 2008. This is explained by WFP which increases its stock according to expressed need by people of Bukavu. Therefore, for PAV stock freight are nil because these ones are incorporated in freight of transport in agricultural products.

Chart No. 2: Taxes revenues Fees after stockage

Years	Flour in \$	Beans in \$
2007	0	0
2008	0	0

Source: Speech interview with the store service

Due to marketing politics, a contract has been signed between WFP and SNCC to free exploitation of SNCC store on condition that the transport might be done by the same society. For other customers, a sack of 5kg is 0.8\$ in the store. Let remind that WFP is 2/3 of store.

Chart No. 3: Freight of store received by the firm

Years	Flour in \$	Beans in \$
2007	3008	2128
2008	4272	2768
Total	7360	4896

Source: Individual conception having given unit price per year and chart number 1.

This chart traces back the perceived amount by the society for other customers than WFP. The unit price of these two data is identical due to the following criteria:

-Necessary products necessitate mutual complementarities, i.e, the increasement of price of the one involves the increasement of the other. Sometimes the price of flour increases due to the fall of production while the other property (beans) falls because of abundance on the market and vice-versa. The customer can recover goods.

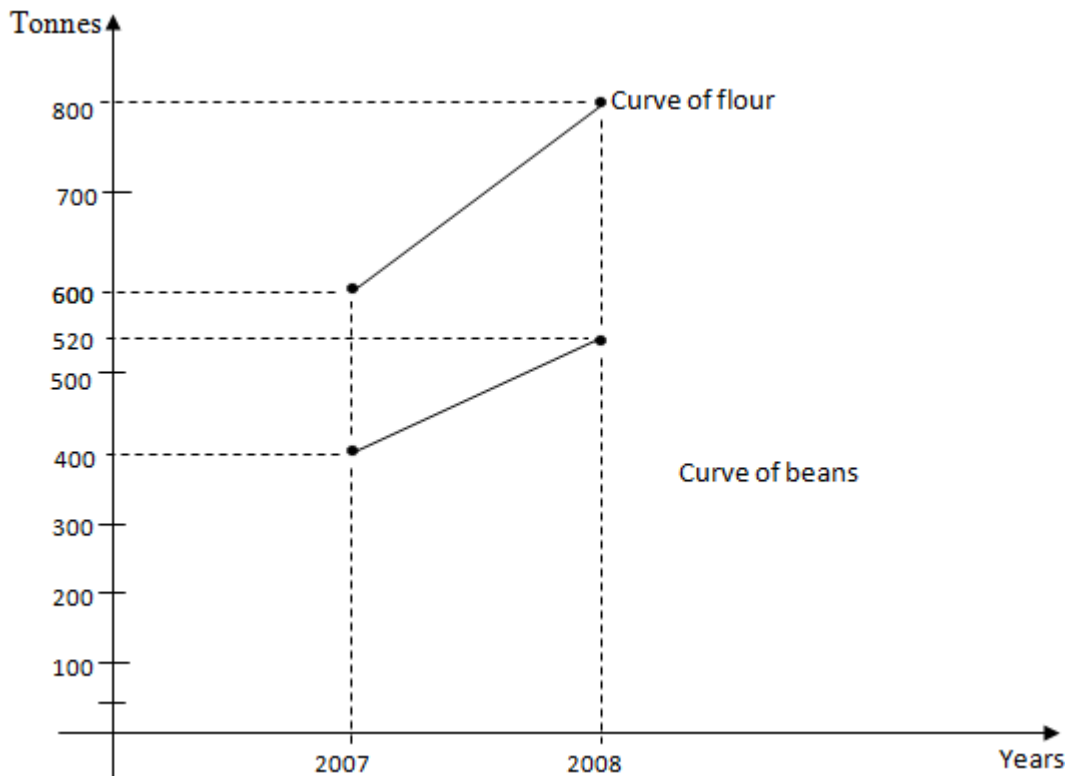
Some area with flour can be substituted by beans and vice-versa, each thing is equal elsewhere. In this society, palets are insufficient in number, health conditions and mechanism of protection of goods of customers are not sufficient. Then the loss for society as presented in the followed chart:

Years	Flour Quantity	PU	Beans Quantity	PU	PT
2007	52 sacs	14	15 sacs	25\$	375
2008	85 sacs	12,5	75 sacs	27\$	181
Total	137 sacs	////		////	564

Source: Individual computing

- 1) A problem of logistics occurs in the society: poor roof, spoiled sacks, destroyed by rats. All these constitute a loss needed by the society.
- 2) The transportation by ships also presents the same loss: non-entertained stores and even there only exist on Karisimbi ship, which is destroyed.

In the following subpoint, we will show the graphic symbol of evolution of stocks(quantities, received) of food diets during our study.



The curve of two diets are increasing and parallel, i.e, the production of these two diets are independent and are favoured by geographic situation in the milieu of production. Stock of flour is more increased for the two years than beans given that it is sollicitated in several alternatives.

3.1.2. Delivery

The client, having already payed of goods entry, can wish to get them anytime. There exists then an activity of verification between shop keeper and customer. In this section, we shall present the prevision in delivery of the firm and chart delivery which has taken place.

Chart No. 5: Prevision in delivery of society from 2007 to 2008

Years	Flour	Beans
2007	900 Tonnes	520 Tonnes
2008	950 Tonnes	780 Tonnes
Total	1850 Tonnes	1300 Tonnes

Source: Action plan

The perceptives of society are for instance flour and diets of large consumption different from beans at a little demand.

Chart No. 6: Delivery realization

Years	Flour	Beans
2007	400	450
2008	750	400
Total	1150	850

Source: Commercial activities report

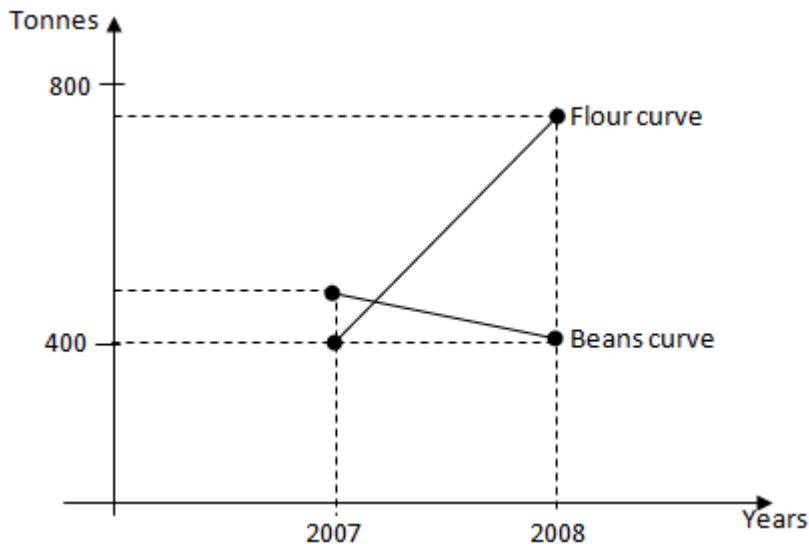
Flour presents a very high demand because of the solicitations in the camps of refugies of Mugunga fearing war between CNDP and the government soldies. Let us consider that output of beans was not flexible because other substitutes played negatively against this vegetable. We can then conciliating the couple of charts here above established. Differences between previsions and realization in the society.

Chart No. 7: Gap observed between prevision and realization

Years	Flour in Tonnes			Beans intonnes		
	Prevision	Realizsation	Gap	Previsions	Realization	Gap
2007	900	400	500	520	450	70
	950	750	200	780	400	580
Total	1850	1150	700	1300	850	450

Source: Compilation chart number 5 and Number 6

Differences observed in the firm are due to a poor logistic chain of stock and transport, chains that do not obey any minimal condition. For the following coming years, this society will remain only for its name. That's why positive differences observed constitute economical regression at the society. The difference of prevision and realization helped us to determine the matters according the graphic below



Graphic No. 2: Display evolution of delivery of flour and beans.

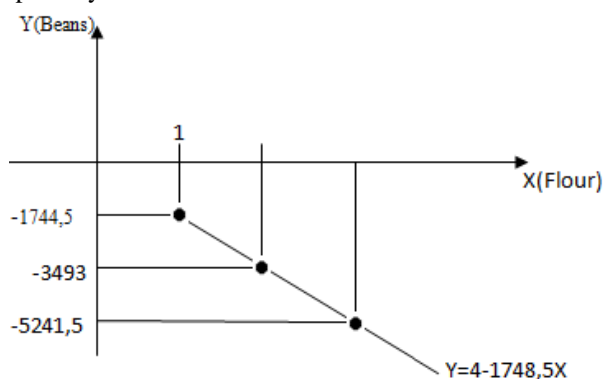
To know more, the right of regression $y=ax+b$ is to be calculated for finding out its declination, taking into account that the curve decreases and the one of beans decreases monthly. Thus:

$$a = \frac{COV(x, y)}{\sigma_x^2} \text{ or } COV(x, y) = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{N}$$

$$\text{So, } a = \frac{115625}{30625} = 3,77551 \approx 4$$

$$b = \bar{y} - ax \text{ with } y = 425 \text{ and } x = 575, \bar{y} \text{ obtain } b = 425 - 3,78(575) = -1748,5$$

The right of regression $Y=aX+b$ with Y beans and X the flour and has the major coefficient and b the constant is then: $Y=4-1748,5X$. This right lie shows that the delivery of beans is decreasing function of flour, i.e, the delivery of beans increases with decreases of quantity in stock of flour and vice-versa. This regression and Y in X can present graphically as follows:



For the enterprise, the output in the store (warehouse) of the inputs of diets is explained by foreign demand to satisfy, for beans, its demand is about in its fall due to other substitutes needed (peas for example). Flour presents a high demand and stays competitive on market. Thus, stocks and distocks being the wish of customers, methods used in society to manage stock of flour and beans: CMPE+SI, i.e, the average coste generates initial stock. This method helps to realize social income.

Chart No. 8: Calculation of final stock of flour and beans from 2007 to 2008 in tonnes

Years	Flours			Beans		
	Reception	Delivery	SF	Reception	Delivery	SF
2007	580	400	180	400	450	-50
2008	800	750	50	520	400	120
Total	1380	1150	230	920	850	70

Source : Elaborated exactly on basis of chart number 1 and number 6

Making the difference between diets at the reception and delivery, we get final sytock which, presents a totalof 230tonnes for the flour and 70tonnes for the beans; juxtaposed quantities in stores of society during two years inventory.

3.2. Interpretation of Results

Considering the average of quantities received in warehouses and even from the delivery, there is necessity of statistic calculations to show the influence between the inputs and the outputs and their incidence on the revenue of the firm. Let us inform that corrective calculation expresses the dependency of two variables X(flour) and Y(bean).

For chart 1:

1) The average of flour received for two years is:

$$x = \frac{\sum_{i=1}^n y_i}{N} = \frac{1380}{2} = 690 \text{ tonnes}$$

2) The average of beans received is:

$$y = \frac{\sum_{i=1}^n x_i}{N} = \frac{920}{2} = 460 \text{ tonnes}$$

For Chart number 6:

1) The average of the delivery of flour is:

$$x = \frac{\sum_{i=1}^n x_i}{N} = \frac{1150}{2} = 575 \text{ tonnes}$$

2) The average of the delivery of beans is :

$$y = \frac{\sum_{i=1}^n y_i}{N} = \frac{850}{2} = 425 \text{ tonnes}$$

By these results, we notice for about the average of 690 tonnes of flour are received per year and 575 tonnes are given with a difference of 115 tonnes. It is then imperative to determine correlations between inputs and outputs. Then we will determine the variant for each case:

1) For N flour:

$$\sigma^2 = \frac{\sum_{i=1}^n x_i^2}{N} - x^2 \text{ with } \sigma = \sqrt{\sigma^2} \text{ the standard deviation}$$

For inputs at point 1: $\sigma^2 = \frac{976400}{2} - 416100 = 72100$

with $\sigma = \sqrt{72100} = 268,5$

For the outputs at the same point: $\sigma = \sqrt{30625} = 175$

This means that the outcomes of flour are spread around the average of 175

2) For beans:

For inputs

$$\sigma^2 = \frac{\sum_{i=1}^n x_i^2}{N} - x^2 = \frac{430400}{2} - 311600 = 3600$$

With a compilation standard deviation below

$$\sigma = \sqrt{3600} = 60$$

For outputs: $\sigma^2 = \frac{362500}{2} - 180.625 = 625$ with

standard deviation computed here above $\sigma = \sqrt{625} = 25$

Let us symbolize by R receptions and S the outputs, there is probability to find out coefficient of correlation for the flour on one side and beans on other side:

a) Thus for flour:

$$\ell = \frac{\sum xy - N \bar{x} \bar{y}}{N \sigma_x \sigma_y} = \frac{832000 - 793500}{2(268,5)(175)} = 0,4$$

AS $\tau = 0,4 < 0,5$, the correlation between the receptions and the delivery of flour does not exist: this means the inputs do not influence positively the output and vice-versa.

b) For beans: $\ell = \frac{388000 - 2(460)(425)}{2(60)(25)} = -1$

As this coefficient of correlation is superior to 0, 68 in absolute value, we say that there is a very strong correlation between the receptions and the delivery of beans.

4. Conclusion

At the end of our work about “The impact of stock management of food diets on the revenue of public firm: Case study of SNCC/GOMA”, our attention has been focused on the management of stocks of food diets (flour and beans) due to the food lack and economic problem on which people of Goma come cross and those surrounding Goma.

We were motivated by the fact to know:

- Methods of stocks management applied in this society;
- Their impact on the organization and revenue of the society;
- How the logistics of stocking of food diets is performed, its efficiency to answer customers needs;
- If there exists correlation between the inputs and outputs in the society.

Concerning to our preoccupations here above cited:

- 1) FIFO methods for the nonspoiled and LIFO for spoiled products would be into application in the society and would have a positive impact on the revenue and organization of the firm in general
- 2) The logistics of stocking food diets would be efficient and would ask to customers’ needs.
- 3) We estimate that it would have a positive correlation between the inputs and outputs of food diets.

After the analysis and interpretations of the data , we have come across the following results:

- a) The methods of costs means producing the inputs more initial stock is the application by the customers of the firm. These ones only manage stocks. This method ameliorates social revenue. Each year the losses encoded flour, that is what disorganized the organization of firm in general and its revenue in particular. Our first assumption has been rejected.
- b) The palets are not sufficient and poorly entertained, logistic chain is enough and mechanics of production of goods of customers are not convenient; our second hypothesis has been rejected too.
- c) The coefficient of correlation existing between the reception of flour and the delivery being of 0,5 and the one existing between the reception and the delivery of beans, there exists a strong correlation between the inputs and outputs. This coefficient of correlation biases the confirmation of the third postulate, thus the rejection of our assumption

From the results, some recommendations flow as follows:

- 1) Authorities of society should ameliorate the quality of his personnel for logistics and stocking; organizing

mechanism of fee protection of stocks of customers, spreading the capacity of logistic chain

- 2) Public power via the ministry of transport and communication way invest to vivify the firm, providing the most important tools to assume the conservation and transport of goods of customers. We run risk to stay with an inexisting firm and promoting private societies with all consequences originated from them about the politics of price and the movement of people with their properties.
- 3) Rejecting out unfair richness of workers for the firm, this is possible if the public power regulates wages everywhere in the country.

The problem of management being up to date, we do not think having ended all the matters, we simply focused on an analysis due to which we are complaining about our society and/or state firm. So remarks and suggestions for the amelioration of this article are welcome.