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Markets for Quality Seed in Northern Uganda

Skilling local seed businesses to competitively sell their seed

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"If you want to go fast, go alone; if you want to go far, go together."

The best way for farmers to market quality seed is to collectively bulk seed and sell as a group. This enables farmers to reach bigger markets, better control quality, negotiate prices and save on transport costs.

Local seed businesses (LSBs) in Uganda have experienced a number of setbacks in marketing quality seed. Challenges included poor pricing, over production of seed and inappropriate seed packaging. In the initial stages, LSBs did not conduct market research in order to understand the target market, varieties demanded, competitors and market seed price. They were also not able to match demand with supply and provide appropriate seed packaging. After LSBs received training, coaching and exchange visits on participatory market research, customer analysis and developing appropriate marketing strategies to address these problems, LSBs' perception on marketing changed.

LSBs are now better able to market their seed. Smallholder farmers within communities have improved access to quality seed. By using LSB seed, household income has also increased. LSBs are now strategically linked to markets and have become market oriented. To sustain the results, LSBs should continue to plan production according to the market and not produce before finding markets.

A move towards successful seed marketing

When LSBs started seed production they did not know their target market or which seed was in high demand. This was problematic as some LSBs produced a lot of seed and could not sell it, while others were selling at low prices. On the other hand, some LSBs produced too little and did not satisfy market demand. Seed was sold from large

Progress on how QDS seed was packed and sold before and how it's sold now

In 2014, Wot Anyim, an LSB operating in Pader district, Northern Uganda produced and sold 2,075 kg of soybean seed; 1,535 kg of which was sold to an oilseed producers association, while the remainder was sold to other market players. The association was a new and potentially large customer thus the price of a kilo of soybean seed was set at UGX 2,200 per kg compared to UGX 2,500 - the price for local farmers. The association needed more quality seed but the LSB had sold out hence market demand was not met.

100 kg bags and the quality difference between seed and grain could not be easily determined; the seed was not packaged in appropriate bag sizes with clear labels.

LSBs faced pricing challenges since it was their first time to operate as independent market players. Most did not keep production cost records and, as a result, were not in a position to correctly value seed. This made pricing very difficult for them and some even sold their seed at the grain price, not earning back the premium for the extra efforts made for seed production. Limited knowledge and use of marketing strategies (like the 4Ps: product, price, promotion and place) affected effectiveness of seed businesses and profit margins.

Steps towards effective seed marketing

To help LSBs overcome these challenges, ISSD provided training and mentoring on participatory market research, customer analysis, setting marketing strategies, seed treatment procedures, packaging and value addition. As stated in the example below, one of the LSBs in northern Uganda conducted market research and found out that their preferred crop did not have a market. Talking to their neighbourhood farmers helped them to better select crops and take advantage of marketing opportunities.

Knowing your customers

LSBs need to conduct a customer analysis to know customers' interests, required quantities of seed, and for which season before engaging in quality seed production. LSBs also need to know whether customers are male or female because of gender differences in purchasing power, and seed and variety preferences. Knowing customers' gender helps to match demand and supply. Questions to ask in customer analysis include: Which crops and

Marketing training: analysis on current markets and future markets – LSB in Northern Uganda

When asked about potential customers for the seed they are producing, **the chairman of Wot Anyim LSB in Pader** said: *"In 2014, we produced soybean seed without knowing who our buyers would be. In 2015, we produced for a target market including local farmers. We also have contracts with an oil seed association and another company to buy our seed. These customers informed us in advance which varieties they wanted and in what size of bags. This enabled us to plan very well the quantity of seed we want to produce".*

varieties are farmers in the area growing and where do they get seed from? Who is buying the seed: are they farmers, village agents, local NGOs? How to satisfy farmers' specific needs, yield capacity, cooking quality and taste? How do customers' preferences change over time? How does the market change, which new varieties are released? How far are customers willing to travel - and what are their transport costs, especially for customers who will be buying in smaller quantities.

"We were interested in growing sweet potato vines as planting material because we felt it is a crop that almost everyone eats. We started asking other farmers whether they would buy sweet potato vines. After talking to farmers, we realised that vines are actually not sold in the area and whoever needs sweet potato vines can cut it from another person's garden. In communities, clear rules exist on when and how much a farmer can cut. The cutting actually helps the sweet potato owner to keep the garden pruned. As a result, we changed our minds and started producing simsim (sesame) seed instead of sweet potato vines."

Market segmentation

LSBs began seed production primarily to make quality seed available for local farmers within the community at affordable prices. They are located within the community and their primary target market are local farmers. However, LSBs also have other buyers within their communities. As a result of LSBs' trusted seed quality, other customers travel to LSBs to buy from them during high production periods.

A case in point is AFOSEN, an LSB operating in Apac district, which currently cultivates about 1,800 acres of cassava grown for cuttings. Knowing that, in their area, cassava is the primary food security crop, the LSB sells cassava cuttings to farmers at a reduced price compared to other institutional buyers. This has also helped promote the disease resistant cassava (Nase 14) variety within local communities around the LSB.

Table 1 shows the types of seed buyers for a few LSBs. The majority of LSB seed buyers are local farmers in the community where LSBs are located.

Table 1: Customer information for production of 2014B and sold in 2015A

LSB Name	Type of buyers	Location seed buyer/district	Crop type	Variety
AFOSEN	Private businesses	Apac	Simsim	Sesame III
	Institutional buyer	Lira District	Cassava	Nase 14
	Local farmers	Apac	Simsim	Sesame II & III
	Local farmers	Apac	Cassava	Nase 14
Aye Medo Ngeca	Institutional buyer	Dokolo	Cassava	Nase 14
	Institutional buyer	Lira	Simsim	Sesame II & III
	Local farmers	Dokolo	Simsim	Sesame II & III
	Local farmers	Dokolo	Rice	Nerica 4
Wot Anyim	NGO	Lira	Soybean	Maksoy 3N
	Local farmers	Pader	Soybean	Maksoy 3N

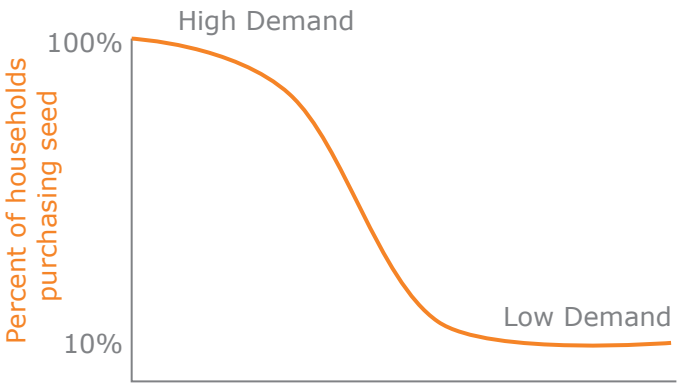
Understanding your competitor

LSBs need to know who else is selling seed in their area of operation, competitor seed quality, certification levels and prices. LSBs need to consider that many farmers use their home saved seed or buy grain in the local market and plant it as seed, especially for open pollinated varieties (OPV) and self-pollinated varieties (SPV), such as beans and groundnut. In short, there are three types of competitors: 1) seed sellers that sell the same seed quality e.g. other LSBs, and with similar pricing; 2) grain sellers that sell grain as seed, thus lower quality seed and much lower prices; 3) specialised seed producers that produce certified seed, such as seed companies, with higher prices. The niche for LSBs is to produce locally-demanded seed within communities that seed companies have neglected or are not available in desired quantities and prices.

Estimating demand and understanding demand trends

LSBs need to know how often farmers buy seed (seed replacement rate) and when they use seed from their own farm. Demand may be high for a new variety when first introduced and then decline over time as farmers then recycle the same seed for 2-6 seasons before buying seed again from seed suppliers (see Figure 1).

Figure 1: How demand of a new variety varies over time



Source: CIAT handbook 2 chapter 5

Other ways for LSBs to increase demand for their products include: introducing new crops or varieties; expanding sale areas; new customers; lowering seed prices; and promoting seed more actively. For example, Aye Medo Ngeca, an LSB in Dokolo district realised that the quality seed they had been producing for

over two years – sesame II - was highly susceptible to the disease 'gold mich' within their communities. Farmers were switching to the new disease-tolerant variety, sesame III. As a result, the LSB started sesame III seed production, market demand has improved and the LSB is selling seed at better prices.

Understanding preferred packaging

Proper packaging and labelling is important for all seed. This is partly because labelling can indicate quality of packaged seed. More importantly, proper labelling differentiates seed from grain. For quality packaging, LSBs need to know which bag size and material is attractive to customers and where to source it. The label should have clear information about the producer, crop and variety characteristics, quantity and quality, and seed class. There may also be a difference in packaging requirements between male and female farmers in terms of size, material and labelling. Having seed packed in small packs of 1, 2, 3, 5 or 10 kg provides farmers who want to try LSB seed the chance to buy small quantities, or for farmers with small acreages the opportunity to buy small seed amounts.

LSBs put a lot of effort into selecting adapted varieties, sourcing quality parent seed and improving agronomic practices to produce quality seed for the market. At the same time, they have been bulking and selling seed in 100 kg sacks without any form of other appropriate packaging and branding. Previously, if a farmer wanted a smaller quantity they would use ordinary polythene bags to carry after measuring the quantity required but this can easily compromise the seed quality through poor handling. This also reduces the price LSBs can ask for their seed, as the big bags do not show the extra efforts and care the groups invested in producing quality seed.

Seed being exhibited and sold in small packs (2, 3, 4, 5 kg)

After conducting market research, LSBs realised there was a demand for packed seed with tamper-proof government issued labels just like certified seed. ISSD trained LSBs in practical skills for seed treatment and packaging, taking different categories of customers into consideration. The Ministry of Agriculture Animal Industry and Fisheries (MAAIF) and ISSD piloted field inspections by MAAIF and seed testing in the National laboratory. All seed that met the standards received the Quality Declared Seed (QDS) class green tamper-proof labels (see photo below).

QDS seed sample in a small pack for ease of purchase by farmers

As a result of the trainings, LSBs are now packaging seed based on customer needs in smaller amounts i.e. 1, 2 and 5 kg. Packs have tamper-proof labels including information on seed variety, quantity and location, which enables LSBs to target a wide range of markets within their communities.

Identifying marketing risks

To manage inherent market risks, LSBs need to identify all potential threats and risks that exist in the marketing environment including: loss of market due to delays in supply; influx of free or subsidised or free seed; and failure to access markets due to poor transport. Once a risk is identified and appropriate measures have been identified, it is no longer a threat but remains a management issue.

Many LSBs have experienced poor prices because of third party involvement in the process. This third party also needs to make some profit and buys LSB seed at lower prices. A case in point was Latyeng LSB in Gulu that sold their seed to one of the local seed buyers at a reduced price because the buyer agreed to provide transport and also buy in bulk.

LSBs setting competitive seed prices (using cost of production)

LSB seed is produced according to the QDS seed standards set by MAAIF. The system is similar to the certified seed class but with fewer field inspections and a smaller sample for seed testing. As processing, transport and marketing costs are lower compared to those for seed companies and agro-dealers, LSB seed prices can be more affordable to local farmers. LSB seed is also easily accessible since LSBs are operating within the local communities to satisfy local farmers' demand.

Before LSBs engage in any seed production, they conduct a crop budget analysis to find out if the enterprise they intend to take up will earn them any profit, which provides the basis of their enterprise selection. From the data in Table 2, the LSBs found that the crops they were selecting would make profits in their seed business.

Table 2: Potential profitability of Simsim and Rice enterprises compared to grain production per acre *(Market prizes as was during their Simsim and Rice sales 2015) for Jing Komi LSB in Kitgum District*

Item	Simsim (seed)	Simsim (grain)	Rice (seed)	Rice (grain)
Area planted (acre)	1	1	1	1
Yield (kg)	600	300	1,500	600
Unit price (sale)	6,000	3,000	2,500	1,100
Total revenue	**3,600,000**	**900,000**	**3,750,000**	**660,000**
Seed rate (kg)	3	3	30	30
Seed price per unit	8,000	6,000	4,500	2,500
Seed costs per acre	24,000	18,000	135,000	75,000
Labour costs				
Bush clearing	25,000	25,000	25,000	25,000
First land opening	80,000	80,000	80,000	80,000
Second ploughing	80,000	0	80,000	80,000
Planting	60,000	60,000	50,000	50,000
First weeding	50,000	50,000	50,000	50,000
Second weeding	50,000	0	50,000	50,000
Harvesting	50,000	50,000	50,000	50,000
Drying/threshing	40,000	40,000	30,000	30,000
Sorting and grading	50,000	30,000	30,000	30,000
Transport	30,000	30,000	30,000	30,000
Storage costs	10,000	10,000	15,000	15,000
Material costs				
Land	0	0	0	0
Fertilizer	40,000	0	40,000	0
Pesticides	25,000	0	25,000	0
Pangas	4,300	4,300	4,300	4,300
Hoes/axes	19,000	19,000	8,750	8,750
Strings	5,000	5,000	5,000	5,000
Bags	9,000	4,500	18,000	9,000
Total costs	**627,300**	**407,800**	**591,050**	**517,050**
Profit	**2,972,700**	**492,200**	**3,158,950**	**142,950**

From the potential profitability analysis, Simsim enterprise made profits however when computing profitability for rice, engagement in rice grains has higher potential of making losses compared to members who engage in Simsim production. But all in all, engaging in seed production is more profitable as compared to engaging in grain production as seen in the profitability analysis table.

LSBs are encouraged to record the cost of producing seed, which helps them to determine the costs to produce 1 kg of seed. With this knowledge, LSBs can set prices above the cost of production per kilo to avoid making losses. Table 3 provides an overview of unit cost of production for different seed crops. This shows that the unit cost of production is lower than the average sales price per kg seed; as long as they have a good yield per acre, they are be able to get profits from their seed business.

Table 3 was generated based on the crop budget analysis ISSD staff conducts together with the LSBs for the seed they sold in 2014.

Identifying most effective promotion methods

Different ways to promote seed include demonstration plots, field days, radio announcements and posters. LSBs can also use cost-effective promotional strategies to reach many people in a short time, such as public gatherings and market days. LSBs conducted a number of promotional activities to promote their quality declared seed, including showcasing LSB seed in trade shows (photo next page). LSB exchange visits allowed experience sharing in seed business and marketing.

Table 3: Cost benefit analysis for crops for production cost estimates in 2014

Crop	Total production cost	Estimated yield kg/acre	Unit cost of production	Sales price/kg	Total sales income per acre	Profit per acre	Profit per kg
Cassava	1,131,000	2,100	539	933	1,959,300	828,300	394
Beans	1,148,000	700	1,640	2,500	1,750,000	602,000	860
Soy beans	762,000	600	1,270	2,500	1,500,000	426,000	710
Simsim	1,074,000	600	1,790	5,000	3,000,000	1,926,000	3,210
Rice	585,000	1,500	390	2,500	3,750,000	3,165,000	2,110
Groundnuts	892,000	500	1,784	5,952	2,976,000	2,084000	4,168
Sorghum	626,200	800	783	1,000	800,000	173,800	217

Promoting QDS seed during World Food Day in Lira district, Uganda, October 2015

During a LSB training on how to promote their products, **members in Latyeng LSB group in Gulu district** said: *"We promote our quality seed through personal sales to intended buyers. We have also given free seed to some farmer groups to try out and we have exhibited our seed during trade shows, field days, World Food Day, and we also visit potential buyers and talk to them directly. We also write adverts and put these at the sub-county office notice board, we announce that we have seed available during public gatherings in churches and during meetings. When given the opportunity, we also talk about our seed on the radio during free agricultural talk shows."*

Changes in seed sales for local seed businesses

Table 4 gives a comparison of seed sales during the second planting season in 2013 and in 2014. Production and sales increased in the second season of 2014. Cassava attracted more sales as buyers bought bigger quantities and hence achieved higher income. The 10 LSBs in Northern Uganda alone thus earned a total of UGX 482 million from seed production in 2014.

From Table 4, it shows that prices for groundnuts and cassava were lower in 2014 than 2013. For cassava, the farmers looked at two options: selling to individual farmers or selling in bulk. One bulk buyer approached them and offered to buy

Table 4: Comparison of seed sales in second season 2013 and second season 2014 for Ngetta zone, Northern Uganda

Crop	Produced in first season and sold in second season in 2013			Produced in first season and sold in second season in 2014		
	Quantity sold (kg)	Average selling price (UGX/kg)	Gross icome earned (UGX)	Quantity sold (kg)	Average selling price (UGX/kg)	Gross income earned (UGX)
Simsim	3,750	4,000	15,000,000	22,526	4,204	94,696,000
Rice	1,200	2,400	2,880,000			
Beans				81,880	2,655	217,384,000
Soybean	7,640	1,200	9,168,000	1,600	2,500	4,000,000
Groundnuts	2,025	6,700	13,567,500	5,208	4,329	22,547,406
Cassava	140,000	625	87,500,000	360,000	400	144,000,000
	154,615		**128,115,500**	**471,214**		**482,627,406**

Source: ISSD Uganda annual report of 2013 and 2014

a huge quantity if the group would give a discount. Since the buyer was buying a lot from them they agreed to reduce the price of the cuttings. Their reason for the partial reduction in price was that the group had over 1,800 acres of cassava and not selling meant that the stems were going to become over mature.

Groundnuts also fetched lower prices in 2014 when compared to 2013. In 2013, the LSB members compared the price at which they bought foundation seed (UGX 300,000 per 42 kg) and took that as a target for their QDS seed. However, they encountered some marketing challenges as farmers were not willing to buy the seed at that price. Analysing the cost-price and seed sales price, the group concluded the price of groundnuts was very high compared to the production cost. Therefore the group decided to lower the price of seed in 2014 to promote groundnut seed to the local communities and encourage them to purchase seed. They therefore set prices slightly above the production cost to make it affordable for the farmers. As a result, they were able to sell all their groundnut seed and still make a profit.

Sustainability: the way to go

Uniquely packaged and priced quality seed puts LSBs in a better position compared to other seed producers who usually produce for higher profit margins. Producing for a targeted market also reduces the risk of leftover seed with no market which results in losses.

LSBs now conduct market research before engaging in seed production and marketing. This gives LSBs a better understanding of customer and market trends, including information on what seed to produce and quantities required to meet and satisfy existing demand.

Knowledge of the 4Ps of marketing (product, price, promotion and place), and identifying cost-effective marketing strategies helps LSBs to market seed. Proper pricing and product positioning, and having many sales points also increase marketing opportunities. Seed promotion should continue with new customers, even when established customers may not buy every season. LSBs have to be in business to sustain and be successful seed entrepreneurs.

As there is also a lot of fake seed on the market, seed packaging helps farmers know that LSBs are producing genuine quality seed. More groups need to start using the QDS tamper-proof labels. These labels authenticate the brand and provide easy identification, which gives LSBs a good reputation to compete well in seed marketing. Different size seed packaging helps to promote LSB seed and meets varying demand of customers who want to try LSB seed in small quantities.

References

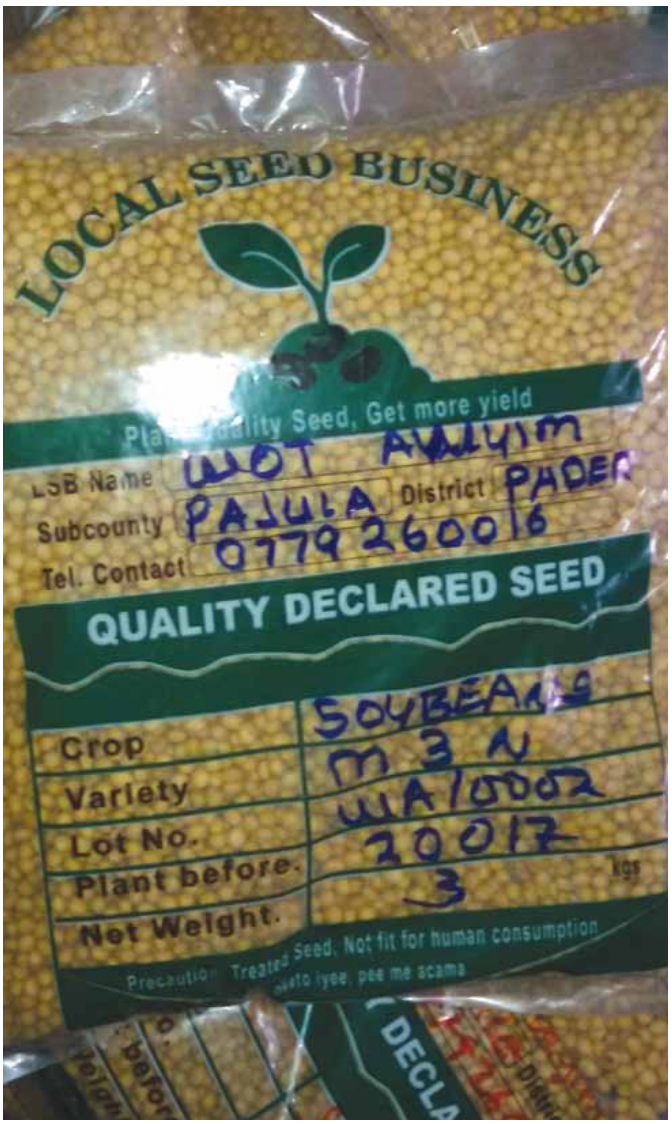
- David, S & Oliver, B., 2002. CIAT Handbook 2: Business skills for small scale seed producers. Network on Bean Research in Africa. Occasional Publications Series, No. 36. CIAT, Kampala, Uganda

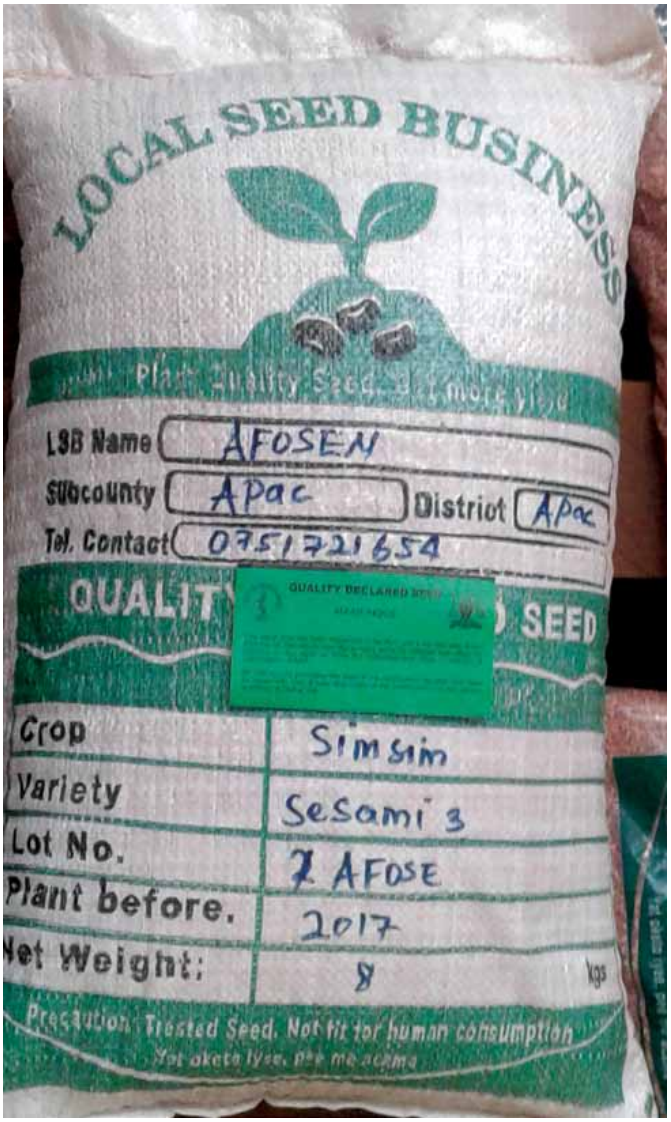
- ISSD Uganda, 2015. Supporting Local Seed Businesses, A training Manual for ISSD Uganda. Centre for Development Innovation, Wageningen UR.

- ISSD Uganda, 2014. Progress Report 2; Annual Report 2013 – For the period 1 January to December 2013. Centre for Development Innovation, Wageningen UR (University & Research centre). CDI report CDI-14-011. Wageningen

- A. Mastenbroek, R. Mugumya, P. Oyee, 2015. *The Integrated Seed Sector Development - Uganda Progress Report 3; Annual Report 2014 – For the period 1 January to December 2014.* Centre for Development Innovation, Wageningen UR (University & Research Centre). Report CDI-15-093. Wageningen.

Participants sewing bags for packing seed bags





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