THE BRAZILIAN DRIED MEAT SECTOR: A RAPID AGRI-SECTOR ANALYSIS (RASA APPROACH)

Gregory FONTAINE[1]; Flávia Maria de Mello BLISKA [2]; Guy HENRY[3]; Eduardo Alves Leal[2]H;Hana Kiyoto ARIMA[2];

[1]CNEARC; gregolac@hotmail.com;[2] Institute of Food Technology; bliska@ital.org.br; hana@ital.org.br; durock@uol.com.br;
[3]CIRAD-Amis; guyhenry@lexxa.com.br

BACKGROUND

Agri-food sector analysis has been based on a wide variety of methods. Universities and the private sector have been the main sources of method development and their applications. Contrary to the work done regarding Rapid Rural Appraisals, RRA, most sector analysis methods require considerable resources, when primary data collection is involved. Analyses based on secondary data sources can be rapid and cost-effective, conditional upon the quantity and quality of existing information. Innovative methods are required when secondary information are scarce and research resources are limited. A Rapid Agri-Sector Analysis, RASA, is proposed, which is an approach combining elements from the more convential sector analysis approaches and integrated with RRA principles. The RASA approach is applied in the case of the *charque/jerked beef* sector of São Paulo State, Brazil. This channel (*filière, cadeia*) is often seen as a residual meat supply processing sub-sector, working under marginal conditions, marketing variable quality products, facing a stagnant or even eroding demand. Existing data sources are significantly lacking in quantity and quality. A rapid sector analysis is required to identify the sector's principal constraints and opportunities, forming the basis for an action plan based on technological interventions, to boost the sector's development.

OBJECTIVES

Statement of the problem: «The Brazilian jerked beef sector markets a product portfolio of highly varying product quality, and subsequent different price level, mostly due (supposedly) to a lack of new technologies, quality control, clear policies and management. It seems that national demand has been stagnant or it has even been declining (on a per capita basis). There are indications that several opportunities exist for a more competitive and efficient development of the industry, benefiting both consumers and processors. Also, new technologies are currently available. As a first action for future intervention, better and more complete sector information is needed» (FONTAINE, 1999). Hence, **the formal objective** of the study was to assess the sub-sector in order to have a better understanding of its constraints and opportunities, and to identify its demand for possible technological interventions. And this paper proposes to use an innovative approach, RASA (HENRY et al., 1999), based on elements of known methods and conditioned by « real life » resources constraints; it describes the application to the *jerkd beef* sector in São Paulo State; and it discusses the preliminary results regarding the validity of the method and its application.

METHODS

Given the absence of earlier relevant studies of this sub-sector and appropriate secondary data, and given the significant time, financial and human resources constraints, the study opted for the RASA model as the most flexible (coat rack) approach for the sub-sector's analysis. The following sections lay out in a summary fashion the various RASA activities followed by a first set of preliminary study results. *The different steps of RASA activities: 1)* Definition and organization of the R&D team, study objectives, methods and expected outcomes; *2)* Inventory of all the local existing infos (secondary data) on the dry meat sector (producers, technologies, markets, products, chain, policies, institutional partners...); *3)* A pre-diagnostic sector overview, through literature review, data base consulting, discussions with key informants; *4)* Development of the *info gap* matrix; *5)* Selection of key stake holders along the chain to be investigated for primary data collection (producers, processors, major and minor retailers, associations, researchers, ..); *6)* Development of interview checklists according to the nature of information required for the study; *7)* Meeting with R&D team to validate the methodology and tools for primary data collection; *8)* Contacting and subsequent visits of urban sales points and traders; *9)* Contacting and subsequent visits of the processors on site; *10)* Complete information collection from additional key informants along the *filière*; *11)* Preliminary results' analysis and discussions with research team for feedback purposes; *12)* Clarification of controversial and/or contradictory information; *13)* Workshop with principal stakeholders to validate results and prioritise needs & opportunities (Delfi – CASTRO et al., 1996); *14)* Feedback of selected results to sector stakeholders; *15)* Subsequent meetings with stakeholders for developing an action plan.

RESULTS AND DISCUTIONS

On the Brazilian Jerked Beef market exist two products, the *Charque* and the *Jerked Beef*. They are are both the result of salted (wet and dry salting) and dried cuts of beef. The meat cuts used are in general the "non-noble" parts. During the salting process, is added to *Jerked Beef* curing agents (nitrite and nitrate) that have colour (cured red), aroma, preservative (microbiological inhibition) and anti-oxidative (protecting fats from oxidation) effects. This *Jerked Beef*, commonly considered as an evolution of the traditional *Charque* has, compared to its predecessor, the main advantage of being processed more rapidly (1 to 2 days less) and marketed with a higher percentage of water (up to 55 % compared with the 47.5% limit for the *Charque*). The latter, from a processor's view, is the basis for the relative higher profitability of *Jerked Beef* production. Both products are traditionally consumed in *feijoada* and *arroz careteira* dishes. The traditional and principal *Charque* market is north and north-east of Brazil. The sales of *Jerked Beef*, of more recent arrival (70's), seem to show a permanent growth these last 10 years in the south-eastern region and a slow penetration of the north-eastern market. The annual per capita consumption of *carne seca* has increased significantly in metropolitan areas, especially in the North and North East, but also in São Paulo (city). The same source also shows that, over the same period, the national average annual per capita consumption of *carne seca*, for the lowest income scale population, increased from 0,8 to 1.4 KG . This information refutes the belief that *carne seca* consumption is on a down-trend. Charque and Jerked Beef factory prices are a direct function of raw material prices, hence following the same cattle cycle movement. Retail prices are significantly less variable throughout the year. However, climatic conditions (for

drying) and different consumption habits are the principal arguments for an annual low production/higher consumption and price peak in the South-east between May and August. This is not the case for the North-east. There is little real price differentiation between the different dried/salted meats. The marketing strategy of "jerked beef" is aiming, through small quantities and fancy packaging a more sophisticated and health-care consumer. In fact it uses raw material from *forequarter* and *hind quarters* cuts, more noble and less fat than the *flank and plate* traditionally used for producing *charque*. There exist a widespread confusion among retailers and consumers about the different terminology of *carne seca*. Insignificant volumes of *charque* have been exported over time, mainly to Angola. Official *Charque and Jerked Beef* supply data varies significantly according the source. The 1998 data for Brazil ranges from 160,000–270,000 ton. When calculated as percentage (4%) of raw material cuts (specifically used for *Charque and Jerked Beef*) from the total Brazilian meat supplies, supplies could be as high as 450,000 tons in 1998. São Paulo State production is estimated to represent 80% of total Brazilian supplies. From 1997-98, the share of Paulista *Jerked Beef* supplies (compared to *Charque*) increased from 26 to 32%; and the total Paulista supplies increased by 20-25% over the last decade. Units for processing jerked beef, are present at all the levels of the chain between cattle producers and the distribution channel. No clear idea can be had about trends in size and concentration of the processing units. They are highly variable in size and levels of integration, while technology levels are relatively homogenous. Industry threshold levels are relatively low; new entries and exits occur. Exits mainly occur because of raw material and operational capital problems. Most of these are smaller traditional (family run) plants. Significant secrecy exists about "illegal" meat trade, since it represents considerable opportunities for factory profits. In general, factory managers are conservative regarding new technologies and longer term investments. *Principal constraints: 1)* Raw material supply seems to be one of the main limitations for numerous *charque* plants. In fact we noted that new *charque* units are opening in big raw material producing states (MG,MS,GO,RO,...) while units are shutting down in Sao Paulo State due to a lack of raw material and activity. One explanation for this new geographical concentration of the production is the growth of the transport cost (taxes and gasoline) and the possibility for the ex- Sao Paulo state suppliers to develop at a low technological cost a new product, helping the often fragile economy of the *frigorificos; 2)* For small producers, that only work with *charque*, the lack of cash flow to buy big quantities and the subsequent lack of bargain power to obtain a better price is an important limitation to the growth of their activity; *3)* The distribution channel in the north east is difficult to dominate and the high competition on prices due to a great variety of suppliers (formal and informal) weakens the small Sao Paulo producer, which sometimes has to use dumping policies to survive, because of his low competitiveness compared to more integrated groups; *4)* For both the jerked beef and the charque the price of the final product is based on the price of raw material. The more backward integrated groups have a more competitive product on the market in terms of price compared to very low level of integration that often doubles the price of the raw material to obtain the price of the final product; *5)* Most of the visited plants, showed very little evidence of any formal production or marketing strategy. Especially the less integrated processors, rather use a defensive than offensive strategy, or, "day to day survival"; *6)* There exist a definitely lack of organisation among processors. The existing association ceased to function because of lack of and/or conflicts of interests. Currently it's everybody for himself; *7)* The absence of clear product quality standards and norms reduces incentives to improve product quality to capture price premiums; and *8)* A lack of price and consumption analysis reduces the understanding regarding potential demand (national and/or international). This is essential for product, market and price differentiation strategies. An essential element of the study has been the participatory nature and the integration of client opinion with expert analysis. Hence, a significant amount of explanatory (qualitative) information was gathered to be validated (and supplemented) with the little "hard data" that existed. A Delphi-type of approach was used on major issues that showed contradictions. Once all the primary data was collected and analysed, the principal sector actors were invited for a workshop to present, discuss and validate the major findings. This was followed by a prioritisation process by type of actor. The results show us that majority of actors agreed on the most obvious sector limitations (high costs, low quality, norms, information,..). Lively discussions were had about how to renew the currently dormant association of Charque producers. Although they acknowledge the longer-term need for meat fiscalisation, the current absence of its implementation generates short-term profits. Hence, expert opinion on these issues was/is hard to be adopted by the sector.

CONCLUSIONS

1) By and large, the proposed preliminary RASA approach has been sufficiently robust to be useful in the analysis of the case study. Although the few results shown in the previous section do not reflect sufficiently the full findings of the study, a set of the principal areas for technology interventions have been identified and validated. This serves R&D institutes, together with the private sector, to formulate an appropriate action plan; *2)* The emphasis on participatory principles seems to have paid off in the sense that issues such as results validation and co-ownership of the sub-sector clients has been well achieved. Already, the authors are convinced that the use of participatory tools need to be optimised for the desired RASA approach. Not only does it allow to partially substitute for non-existing secondary information and/or formal/structured questionnaires, but it significantly augments the richness of information. The downside of the method may be the qualitativeness of results...; *3)* The studied sub-sector very much resembled the "worst-case conditions" that are often encountered for secondary (product) sub-sectors in less developed countries. Previous studies, public time series or detailed census data, associations, clear policy documents, etc. were all absent. From this point of view, the case study met with the "right" prerequisites for applying the RASA approach; *4)* A major shortcoming is the little information on product demand/consumption/price aspects. The limited resources for the study did not allow much travel (North East). One should conclude that the overall budget was too low (recommendation for the future). Furthermore, these aspects should be included in a future R&D action plan; *5)* An additional shortcoming is the absence of objective information on financial viability and management issues of the processors. This aspect (and appropriate methods) will need further detailed attention.

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