SUSTAINABILITY OF PRODUCERS OF MEATS AND MEAT PRODUCTS IN SHORT CIRCUITS

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I. INTRODUCTION

Buying trends show that for several years, consumers have increasingly turned to local circuits for their food. This aligns with the food behavior trends identified by Kantar Worldpanel in 2017: consuming less but better, favoring products with a healthier image. The development of activities by farmers engaging in direct sales allows them to diversify their sources of income and directly benefit from the added value of the products (Le Caro et al., 2007). Engaging in direct sales opens up new social networks and offers a new form of recognition and meaning to agricultural professions (Tabet, 2009; Le Bahers and Paturel, 2013). A report indicates that selling local products stabilizes the income of involved producers, although not necessarily improving it (Dédinger et al., 2021). However, there is a lack of economic data available for use. Another gap is the absence of tools and benchmarks for managing various aspects of the quality of meats and charcuteries adapted to the context of farm production. Mastering the various aspects of quality of these products is essential to meet consumer expectations. Even though the French are very attached to local products from their regions, which have a very positive image, it is necessary to ensure in short circuits a level of quality control that meets consumer expectations. Therefore, the VICTOR project proposes to develop support tools for beef and pork farmers in short circuits to improve their knowledge and control of the various aspects of the quality of their meats and charcuteries.

II. MATERIALS AND METHODS

The study was conducted in four major French areas: Pays-de-la-Loire, Grand Est, Bourgogne, and Auvergne-Rhône-Alpes. These regions were chosen due to their strong presence and growth in short circuits in recent years, as well as their regional geographic specificities. They offer a range of contrasting situations in terms of sales seasonality and product marketing modes. The selected farms had to meet several criteria: they needed to have beef and/or pork herds and practice short circuit sales. Additionally, they needed to have their own cutting and/or processing workshop. The original protocol was to investigate 40 farms, but due to these expectations, the farmers willingness and availability, and economic data accessibility, this study design was reduced to 24 farms. They were surveyed three times: the first survey was sociological, the second focused on the technological part of meat processing, and the third on the economic profitability of the workshop and the time spent working. The computer tool used in this study was specifically created for this mission by combining the expertise of advisers and researchers. This software was designed to directly capture. process, and enhance the technical-economic and working time data collected during the surveys. It includes the section related to the economic profitability of the short circuit workshop and work organization. The economic data used in this study come from the farms' expense and income accounts, as well as depreciation. Economic profitability is calculated using variable and fixed costs. The time spent by farmers and employees on a typical week or weeks was collected using a specific protocol. Each typical week was broken down day by day. This protocol allows for precise accounting of the time dedicated to the short circuit workshop. To conduct the hygiene and technological surveys, an audit grid was developed. This grid includes 10 sections covering aspects such as breeding, product characterization, subcontracting, slaughtering, the workshop, raw materials, knowledge, good hygiene practices, and elements to observe. Each section contains open questions, closed questions, and ratings to assess various aspects of the farmer's practices. The investigators used tablet software to enter responses and take photos during visits to the transformation workshops. The data collected during these surveys were compiled in an Excel document for further analysis. These surveys provide valuable information to better understand the practices and needs of farmers involved in short circuit sales as part of the VICTOR project.

III. RESULTS AND DISCUSSION

The sample of farms surveyed is described in table No. 1; these are farms producing pork, beef, or mixed livestock. On average, there are 4 marketing channels (farm sales, markets, producers' stores, home delivery, depot-sales). The detailed analysis of economic results revealed significant trends. Pork farms surveyed generally show positive profitability, while beef farms face more pronounced economic challenges. Farms with pigs and beef cattle present more complex average profitability, emphasizing the importance of labor costs. To meet changing demand, product ranges have become much more diversified. This has a direct impact on working time: 7.7 min on average to cut and process 1 kg carcass in workshops with wide ranges; 3.9 min/kg carcass in those with restricted ranges economic challenge met or close to being met in ³/₄ of the farms surveyed, at the price of a week often full of work for the farmers.

Table 1 - Comparative Overview of Pig and Beef Cattle Farms

	Pigs farms	Pigs&beef cattle farms	Beef cattle farms
Processed volume (tons in carc. weight per year)	15 to 60	15 to 60	10 to 50
Range of products marketed	Extended range	Very wide range	Narrow range
Median cutting & processing time (min/kilo of carc.)	7.2	7.7	4.7
Total product from short-line activity (€/kilo of carc.)	9.74	9.55	9.41
Variable and fixe charges (€/kilo of carc.)	4.28	5.19	4.71
Margin without remuneration of the farmer and	5.62	4.86	4.18
purchase price of the animal (€/kilo of carc.)			

Regarding aspects related to hygiene and the mastery of the technological quality of meats and charcuteries, although many aspects of food processing are mastered by the farmers, there are still areas where improvements are necessary. Farm-based processing workshops subject to health approval must comply with the same regulations and controls as larger meat and charcuterie processing companies.

IV. CONCLUSION

The results of this study provide avenues for the creation of tools and training that could help farmers refine their practices and ensure the quality of their products. These results raise essential questions about ways to improve the economic performance of farms. It becomes imperative to identify specific expenses that can be reduced and to exploit potential levers to strengthen profitability. In summary, this study provided an in-depth and nuanced overview of the challenges faced by farms practicing short circuits. The results and recommendations derived from them offer valuable guidance for future decisions aimed at optimizing the profitability and sustainability of these farms, thus contributing to the ongoing development of the agricultural sector in various regional contexts.

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