EIP-AGRI Focus Group

Plant-based medicinal and cosmetic products

MINI PAPER 2. Business models and empowerment of farmers/collectors in the value chain

Andrea Primavera, Marta Cortegano, Eva Moré, Kate Carmody, Jernej Redek, Dimitrios Argyropoulos

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1. Introduction

We need to assess the business models in the sector of medicinal and aromatic plants (MAPs) production, in particular focusing on agricultural enterprises supplying MAPs by identifying all the needs and barriers. Many of these are addressed in the other mini-papers.

The classification and correct identification of business models is very important for European companies and, for farmers who want to enter the sector to diversify their income. Such a classification can help to understand how to deal with this sector and adopt both innovative and traditional strategies in order to compete on the market. It is important for companies and entrepreneurs to understand which model would best fit their situation, and for the policy to correctly address the potential of the sector.

2. Dissertation

• State-of-play of research/practice

On the basis of the discussions held among the members of the group we can describe the following segments of the chain supply of production of medicinal plants:
a) Primary production
b) Processing
c) Marketing to the final consumer.
It is commonly believed that the three segments interact following a circular ~~web~~-mode instead as a linear mode.
In this mini-paper we will discuss the primary production sector in which two main business models have been identified:
a) Agro-industrial or business-to-business model
b)-Short-chain model or business to consumer.

a) Agro-industrial model

This model applies in general to individual or associated farms (cooperatives, consortia, etc.) or even industrial companies that deal with farmers on a contract basis~~. .~~ These companies are specialized in providing raw materials after a primary or a secondary processing, to industrial downstream businesses. The raw materials come from own cultivation or from contract farmers or cooperative/consortium members, on a significant expanse of land, in order to provide economies of scale. The company or group is responsible for gathering the harvest, carrying out the primary transformation operations (drying or distillation of essential oils) to standardize the product, and in some cases, to carry out further processing (e.g.: cutting and selection of dried herbs, ~~r~~ refining the essential oils, production of simple extracts) to add value and service to the product. The product is then given to other operators in the supply chain such as industries, distributors or traders who subdivide the stock, formulate and package products to the retail for the final consumer. It is clear that the downstream business is global and the most of the value is reached through export. In general, it is believed that such an activity and the investments connected to it, is sustainable with areas of over 20 hectares of land with high productivity, 50 hectares for medium productivity land and 100 hectares for extensive land. The capital permanently invested in this branch of the company is assumed to be between € 0.5 and € 1.2 million consisting of specific cultivation machines, fixed equipment and installations (dryers, distillers, storage) excluding building costs. The volume of business
~~is ranging~~ ranges from 0.5 to 1.5 € million, equal to a production of 50 - 100 tons of raw dry product or

alternatively from 0.5 to 5 tons of essential oil. The company also has facilities to carry out the processing and the where with all to store the products. The investments and the configuration of such a company are conceived according to a ten-year perspective of presence on the market.

b) Short chain model

In this model the company cultivates, collects and directly transforms the agricultural product into final products for the final consumer. The agricultural base is minimal, given that a high number of finished product can be obtained with little biomass. So from 1 to 5 Ha could be a typical ~~dimension~~ size even if in reality there are much bigger companies. Most of the company's resources are used in product development and marketing and sales activities. The company has an outsourced laboratory service that can be shared with other business product processing activities (e.g. honey, cereals) which is generally not equipped with large automatic equipment, where much work is done by hand. The company has variable turnover in relation to the volumes produced and ranges from a few tens of thousands of euros to 1 million euros. Sustainability is achieved when the company has a turnover of over 50,000 euros. This business is accomplished mostly locally or into the nearby region or cities, eventually though the internet is also a worldwide useful tool to reach customers. To this business model belong also seeds and seedlings providers, some of them are strictly specialized (especially in Germany) but the most are regular seeds/plants dealers with experience and a business are a devoted to MAPs.

Both business models exist in other agricultural sectors, such as: wine, cheese, vegetables. Both show weaknesses and areas that can be improved upon in relation to aspects of production and market access. Surely, for large companies, reducing costs and gaining access to new markets are key factors for success. For the small company, on the other hand, the key factors are creativity and the search for specific customers. Below, some specific strategies, which the two models are setting up to achieve sustainability or expand are presented.

a) Agro-industrial (large and medium) farming companies strategies

Big farms or even medium farms selling bulk materials (dried or oils) are steadily growing on the market. The newly developing market is the major constraint to develop such activity together with efficiencies of scale.~~:~~ The strategies are now going to three directions:

- finding new markets

- increasing value of the product through processing and cutting out the middle men. - increasing value through certification of products and traceability

a.1 Finding new markets

The European market is generally dominated by large companies that literally can manipulate stocks and decide prices of many herbs~~.~~ `To avoid having to accept prices set by large companies, farmers are trying to find partners to establish direct connections to growing markets.`
Asia and North America are the most promising markets for European framers to explore. Exporting overseas, by logistic, regulation and cultural aspects may be really challenging, so is finding the proper partner in the wide range of end users of MAPs and derivatives.

a.2 Increasing the value added to the product

Raw materials need to be processed different way to be compliant with specific end uses. Some farmers are exploring such opportunity to gain value through further processing of herbs until a semi-finished or finished product is ready to be packed by end users. Through this, famers try to jump the medium ring of the chain and get in touch with end users, that are ten to hundred times more numerous than intermediate processing industries or traders. This opportunity is really important but it needs specific competences and investments.

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a.3 Increasing value through certification of products and processes

Authenticity is a really important factor in the sector for raw material production and sale. The contamination problem, the liability of supplier, the fairness of production are pushing the business to business farmers of MAPs to a more formal way to respond to the demand of partners and market. Certification is the response, meaning process/products, procedures implementing and assessment, risk analysis, data recording and data sharing. The process must be transparent between the farmer and its industrial customer. Papers filling and filing is also necessary to testify and leave a trace of the work done. GACP, organic, and special process/product certification are put in force by farmers and partners jointly to ensure the supply and reduce the risks of economic losses by both enterprises. Every product must be accompanied by its dossier and life cycle history. Also sustainability and fairness certification are becoming popular to compete with world suppliers, still relying mostly on price competition.

b) Short chain (medium and small) farming companies strategies

Generally, this size of cultivation does not lend itself to a bulk market, unless you consider small cooperatives. Small companies develop a strategy where the objective is: wide diversification, attraction of the customer, multi-functionality and value added though direct (goods) and side services (entertainment, leisure, healthy activities). Among the diversification in the short-chain /small dimension companies we see these activities:

b.1.1. Nursery/Garden centres

Selling to hobby gardens or other small professionals. They are selling seeds, seedling and pot plants to diversify the opportunity of an income.

b.1.2. Gardens

Thematic gardens either visual, aromatic, culinary and people with additional needs ~~persons impaired~~ are often an important part of this kind of business. The small farm get income either from selling finished products, or from educational events or from experience sharing. When receiving people, it would be also necessary to have facilities to attend visitors (toilets, parking, reception, etc.).

b.1.3. Field crop for beekeeping and honey production

Melliferous aromatic plants could be cultivated in the field to be used by honey bees as nectar or pollen source, so placing the beehive next to the field. Many different species could be cultivated to have successive flowerings

b.2. Fresh herbs cultivation

They can be an open field and seasonal production or a greenhouse production all year round operative. Small farms are supplying with fresh sorted herbs (usually in quite wide range) local professional users (e.g.: HORECA) or retail shops and somehow selling directly to final consumer in a farmers market.

b.3. - Processed herbs cultivation to retail sale

With a small area ~~surface~~ but having a wide range of different cultivated species, it is possible to manufacture different handicraft herbal products: Seasonings and herbal teas, essential oils, cosmetics, dietary supplements, medical devices and different household products (soaps, cleaning products, house perfumes). The heart of such a company is the processing facility, usually very small but with different devices and tools allowing to process the herbs to ends products. These products are traded in many different ways, with internet as an emerging avenue ~~way~~. Every occasion is a good occasion for a sale: local markets, season markets, buying groups, specialized retailers, exhibitions, temporary shops…

These kinds of businesses are facing different kind of problems and challenges. Some are internal to the sector, others from the administrative and regulatory context. The major constraints/challenges are product design, marketing tasks and regulatory compliance

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Product design: a well-designed product is halfway to success. But product design is one of the least developed and least attentive best practices in short chain companies. While it is imperative that the product has authenticity in terms of quality, it also should be presented in a manner to tell its' story. (Provenance). Marketing tasks: while producing a well-designed, good product, genuine and handmade, it does not relieve the manufacturer from the work of publicizing, promoting and marketing the product itself. This kind of activity is normally done in big businesses by professional and trained people, and at farm level can prove to be a huge obstacle, thus meaning that very good products can take a longtime to make their way onto the market.

Regulation problems: when producing food, dietary, cosmetics, aromas, they have to be com-pliant to current regulations. On top of this, some products need certification standards, requiring additional services. Finally, food and non-food products cannot coexist in the same working environments. This situation generates important costs for the small business that has difficulty in bearing them.

3. Conclusions

• Summary: lessons learnt on the key issue

The business model in the MAPs sector looks to be the same than in other agricultural fields. On one hand we have massive production for industrial and large downstream and international markets. While on the other hand we are looking to a growing number of enterprises that try to get to the final customer with the maximum of value added, processing with a "farm to fork" approach. These two models have small variant as the agro-industrial trying to get on the market with private label, or small companies trying to add services as tourism and education, but they stick to the main structure and become more and more stable in its own strategy.

4. Research needs

Knowledge gaps to be cover by Research

• Both business models lack different important elements necessary to be stable and competitive in the sector, but it is believed that these can be included in the more general research needs: agronomic & technological. It would be really important to build capacity on the herb processing. How to distillate essential oils, how to properly cut an herb, how to make and extracts are competences that are missing in this sector and no studies are really addressing it. Certainly, the two models have a very different type of needs. The agro-industrial model company has a research needs more aimed at efficiency; energy saving and operating cost reduction. The small-scale company has needs more aimed to appropriate technologies adapted to small-scale, necessary both in the field and in the production phase, to innovate packaging materials, to develop marketing and product design.

Research needs from practice

The research needs in this transversal focus area fall specifically in the various focus groups: agronomic, technological, design, and it is not easy to identify specific research topics for it.

A third business model is needed in order to enhance a rural renaissance from the potential of MAPS and that is a model for 'Agriculture of the middle'. The middle scale operation has been totally squeezed out between the two heretofore mentioned models and the role of SME and small co-operatives needs to be researched further.

5. Ideas for innovation

• Ideas for innovative projects /solutions

Business models are a spontaneous phenomenon that occurs within a specific economic context and are created, modified and innovated as a result of economic competition and change in consuming patterns. Certainly innovation must concern organizational models between companies (e.g. "business networks" in Italy) and how to share certain building steps for a new company. For this reason, in addition to training, the creation of herb business incubators at national or European level could be useful, where the first steps to be taken are made by groups of entrepreneurs together with the support of a tutor.

• Potential EIP operational groups

An operational group could gather around a business incubator for new companies that is a center of competences, supported by government and associations; but and also a place where to carry "material" experiences. Here the aspiring entrepreneur can make a training shared with others and with skilled trainers. Ideally a kind of " herbs gym" or a physical container where to make available, to start-ups on medicinal plants, machinery and equipment in order to learn how to use them and develop skills and products, before proceeding with individual investments, perhaps excessive and not commensurate. This "herb gym" will also act as a pre-selection of "wannabe herb farmers", preventing phenomena of raiders, speculators and inept entrepreneurs, minimizing failure risk and promote a harmonized development of the sector.

Another operational group could involve integrating MAPS crops into traditional farming systems, thereby creating a value-added cash/catch crop for the farm and enhancing the biodiversity of the farm. Many MAPS would qualify as rotational crops and would therefore encourage farmers to diversify.

6. References

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The European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI) is one of five EIPs launched by the European Commission in a bid to promote rapid modernisation by stepping up innovation efforts.

The **EIP-AGRI** aims to catalyse the innovation process in the **agricultural and forestry sectors** by bringing **research and practice closer together** – in research and innovation projects as well as through the EIP-AGRI network.

EIPs aim to streamline, simplify and better coordinate existing instruments and initiatives and complement them with actions where necessary. Two specific funding sources are particularly important for the EIP-AGRI:

- ✓ the EU Research and Innovation framework, Horizon 2020,
- ✓ the EU Rural Development Policy.

An EIP AGRI Focus Group* is one of several different building blocks of the EIP-AGRI network, which is funded under the EU Rural Development policy. Working on a narrowly defined issue, Focus Groups temporarily bring together around 20 experts (such as farmers, advisers, researchers, up- and downstream businesses and NGOs) to map and develop solutions within their field.

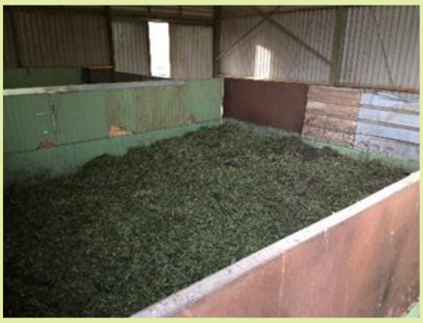
The concrete objectives of a Focus Group are:

- ✓ to take stock of the state of art of practice and research in its field, listing problems and opportunities;
- ✓ to identify needs from practice and propose directions for further research;
- ✓ to propose priorities for innovative actions by suggesting potential projects for Operational Groups working under Rural Development or other project formats to test solutions and opportunities, including ways to disseminate the practical knowledge gathered.

Results are normally published in a report within 12-18 months of the launch of a given Focus Group.

Experts are selected based on an open call for interest. Each expert is appointed based on his or her personal knowledge and experience in the particular field and therefore does not represent an organisation or a Member State.

*More details on EIP-AGRI Focus Group aims and process are given in its charter on:
http://ec.europa.eu/agriculture/eip/focus-groups/charter_en.pdf



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www.eip-agri.eu | +32 2 543 73 48 | servicepoint@eip-agri.eu | Avenue de la Toison d'Or 72 | 1060 Brussels | Belgium