

CONTRACTS - THEIR ROLE IN THE MARKETING CHAIN		Agriculture
		Keywords: contracts, farmers, costs, price, producer.

Prof.As.Dr. Ina Pagria	Agricultural University of Tirana, Tirana, Albania.
Prof.Dr. Bahri Musabelliu	Agricultural University of Tirana, Tirana, Albania.
MSc. Denisa Pipero	Agricultural University of Tirana, Tirana, Albania.

Abstract

Basic goal of this benchmark is to provide a theoretical background not only for analysis of specific contracts in agriculture that should operate between producers (agents) and processors (Principal). Normally, for an explanation of this issue, must rely on principal agent theory, theory which provides important explanations for the necessity of the system of contracting between producers and processors, and why not, to proceed with the need for integration (horizontal, vertical perhaps conglomerate) in agribusiness industries. This theory deals with situations in which an economic entity, in case the total processing industry, but not limited to, (the principal) of "delegate" responsibilities (tasks) an agricultural producer of raw materials (the agent). Delegation of tasks that the agent makes decisions that affect not only their activity but also on its own principal. Normally, in a principal-agent relationship, the latter is threatened by formal or informal contracts that represent the interests of the principal in exchange for a fee.

1. Relations between-Principal (processors) and agents (producers)

In a principal-agent relationship, the latter is threatened by formal or informal contracts that represent the interests of the principal in exchange for a fee. Relations between them are characterized by the following features:

- Functions of principal weakness and agent do not match
- The level of benefits & costs of the agent is influenced by two factors:

First, the level of compensation that increases his personal asset

Second, from the efforts that should be undertaken to implement the obligations to third parties.

- Principal and agent have different attitudes towards risk, and actions against the principal and the agent will be different. It is supposed is that the principal is r neutral toward risk and opposed to his agent.
- Information between principal and agent are scattered in a non-symmetric way.
- The final outcome of the activity depends not only on the agent's efforts, but also by other factors.

So the principal cannot directly assess the efforts of the agent on the final result basis.

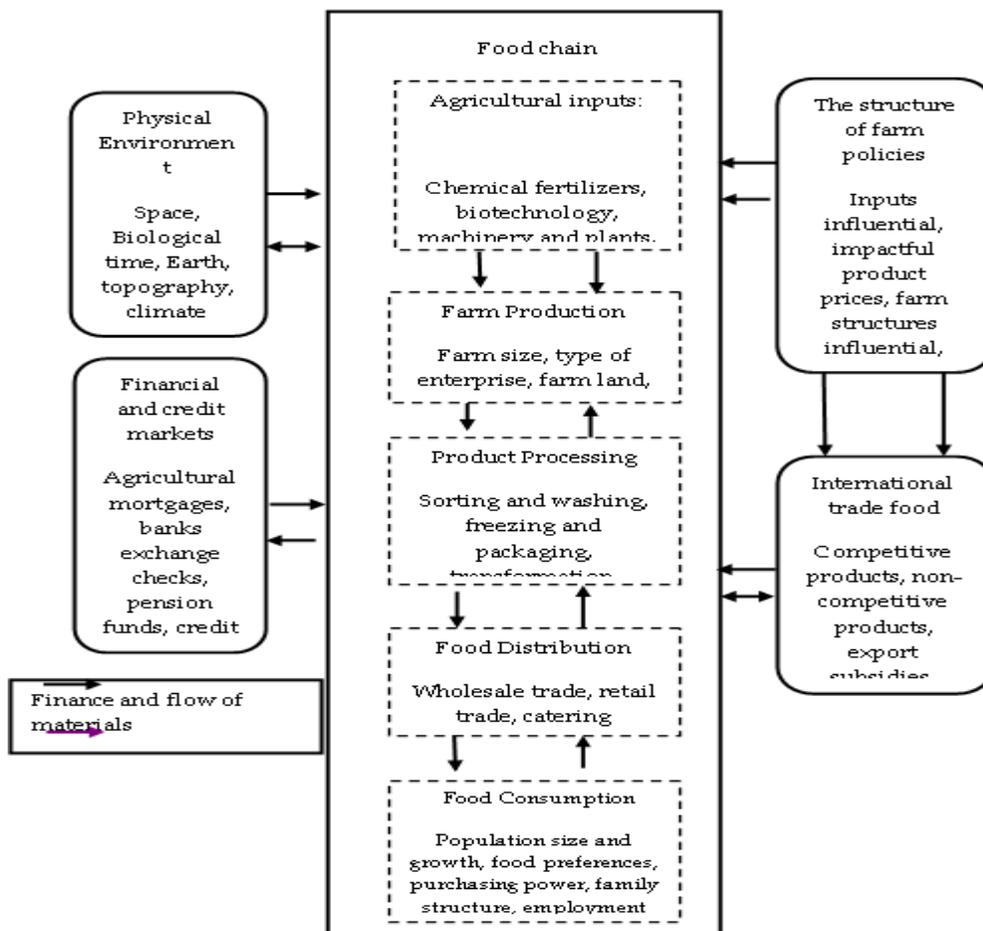
Problematic

In the agro-food sector, the problems between the principal and the agent are subject to the requirements relating to the supply of high quality inputs. However, when it is costly to monitor quality, full integration within the firm is only one of the valuable options. Presence fails, presence of risk moral, require the existence of good reputed providers, as well as sufficient information about quality, in order to build a risk monitoring.

2. Supply chains and problems between actors

Agro food filiere constitute the object of analysis and evaluation in this paper. In their operation is involved a large number of stakeholders. But relations and mutual interdependencies between actors and links in the system are almost nonexistent.

Scheme 1 - Supply chains in agro FILIERE



In the scheme above, it is noted that the well-functioning of a certain FILIERE, could not be realized beyond bilateral relations and effects between producers and suppliers of agricultural inputs and agricultural producers, between the latter and the processing industry, between her and distributions processed products, and finally, between distributors of products and customers. For this reason, we will focus on the second link of the scheme, in the relationship of agro-processing industry and manufacturer.

3. Contracts system and problems related with them

3.1. Contractual relationship - rationality and opportunism

The theory of contracts is based on two important concepts, on the assumption of reasoning, (rationality) and the assumption of opportunism.

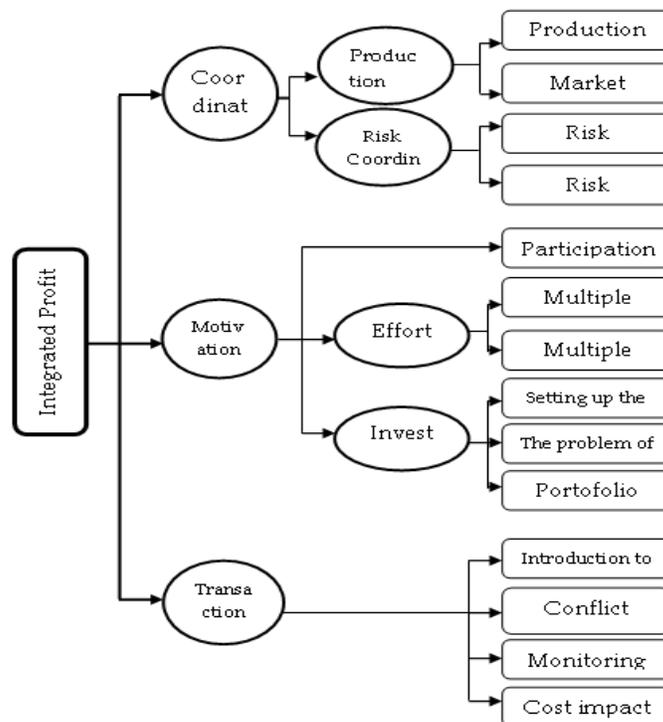
Concept based on the assumption of reasoning (rationality), implies that individuals, based on the information they possess, are interested in choosing the best ways to achieve their goals. Referring to a concept of "restrictive rationality", it should be noted that an individual cannot predict all economic situations or nature situations, therefore, must accept the concept of not full contracts, therefore is necessary the renegotiation. The concept of opportunism assumption implies that individuals are selfish people and as such, in any case try to exploit any situation that they face for their benefit. This means that an individual will sign a contract only if it is profitable for him.

First, these assumptions have descriptive power. Secondly, we may want to put (impose) a rational and opportunistic behavior, as part of the solution that we seek. Third, the assumption of rationality and opportunism of the contracts set the theory as an integral part of modern neoclassical microeconomics.

4. Analysis & evaluation of the contracts goal

In benefit of analysis and evaluation of the functioning of the contracts system, we propose to use a certain hierarchy of purposes.

Scheme 2. Hierarchy of goals for the design contract



The motivation for signing a contract depends on parties preferences. From the economic perspective, the main purpose of a contract is integrated profit maximization. In terms of a satisfactory profit level, anyone can become better; making sure that it is possible to redistribute profits, without adversely affecting the behavior of the contracting parties. Contracts integration resulting in maximum profits, is regarded as the best of the first contract.

4.1. The main objectives of contracts

Each contract must serve for two main purposes:

First, a contract must coordinate the production in order to ensure that manufacturers are producing the right amount of the right products at the right time and right place.

Secondly, the contract should motivate the parties, giving private interests in making coordinating decisions that maximize integrated profit.

Third, it can reduce costs.

A potential joint conflict of coordination and motivation comes mainly due to the dual role of prices, but on the other hand it should be noted that prices send coordination signals that affect the distribution of benefits from the contracts.

An efficient contract contributes to the optimization of coordination and motivation in the maximum way possible. It should be noted that transaction costs can be defined in a narrow or wide sense.

In the narrowest sense possible, the term of transaction costs it refers to connectivity costs, monitoring and enforcement of contracts.

On the other hand, seen in a wider perspective, the transaction costs consider any kind of barrier that hinders efficient decentralized exchanges.

Considering the above, we must underline that the production costs and transaction costs are allocated. This is a common assumption in the theory of transaction costs.

4.2 Coordinate production

There are two basic approaches to the production coordination.

A planning approach is a hierarchical one, where a central decision-making determines the actions of any manufacturer and coordinates behavior through instruction.

The other approach is the market approach, where production is determined by the invisible hand of the market and production activities are coordinated through price signals. In formal literature has two important behavioral explanations. One of these directions is called game theory (team). A team is a group of people who agree on the name of a general purpose, with the objective that who collaborates solves a common problem, through actions and private information from any member.

Another line of explanation is that one of iterative planning procedures and with many levels. Subject of this approach remains the problem of coordination within a divisional firm.

Often contracts simultaneously use both mechanisms of coordination. According to this logic, specific aspects are controlled by the price mechanism, while others are controlled by central decisions. In general, overall production levels often are delegated to individual producers and coordinated by a price which signal

demand conditions. To determine a good coordinated production plan, it is necessary to dispose the necessary information, considering here the information on income and cost of processors, as well as information on producers. The problem become even more acute, because actors will reveal their private information only if it is in their interest.

A prominent coordination problem has to do with the choice of production levels at various stages of the supply chain. If different stages operate individually and independently choose their production levels to maximize their profits, could be raise double marginalization problem. Each stage of the production chain uses its market power by reducing the amount supplied in order to increase the price. This will cause a double drop in supply, which in turn will reduce the integrated profit. Double marginalization problem it is caused from the fact that the processor does not optimize the amount based on the production costs of manufacturers, but based on the price that he pays producers.

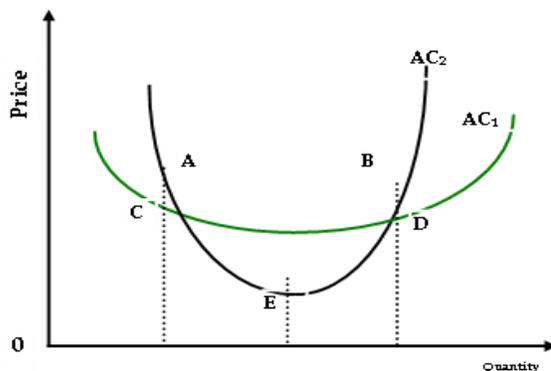
If manufacturers possess market power, these prices will be above production costs. Standard solution of the problem would be a contract in two parts, one that provides a transfer price equal to marginal cost of production and another that provides an additional fixed transfer.

Is the opportunity to remind how processing enterprises, as well as the producers themselves, can improve their business by using contracts? They can reduce operating costs; ensure the required quantities of products, their quality, timeliness of supply etc. They can provide various equipment and supplies in quantities and at favorable prices, because of the image and credibility created by contracts with manufacturers. Likewise it can be said to fulfill their needs for capital etc.

Contracts enable stakeholders involved in the project to combine better resources in order to reduce the costs of activities. Using contracts, processing enterprises can reduce insurance costs, collection and distribution of products. They, also can realize processing products and other activities with minimal cost, because it is known their activity volume.

If the company does not know the volume of activity, then it should work to ensure flexibility in its operations, to minimize the risk, as it is shown in the graph below:

Graph 1. Decision making in terms of contracts use



Referring to the cost curve AC1, it is noticed that the lower level of the cost is in the C-D curve that represents a certain amount of production that we do not know and this is a major problem in the absence of contracts.

If it is known the production quantity, the cooperatives can achieve a lower cost; let's say at point E in a known volume production. But if the volume changes, say from A to B, then the average cost would be higher than on AC2 over AC1.

Contracts have legal power as for the manufacturers also for the producers. They hamper foreign interventions, because guarantee that the other party shall be penalized for any damages that may occur from a breach of contract. This is because they reflect the common rights and obligations of the cooperative and its members. In determining the supply is very important to consider how competition affects the market. In some cases, a great offer can cause an aggressive response to competitors. In other cases, a great offer can empower competitors out of the market or prevent new competitors from entering the market.

4.3. Risk coordination

In a contractual relationship, there are two aspects to minimize the cost of risk. First, the risk should be shared in a way to reduce as much as possible the total cost of obtaining the risk. Second, the contract must minimize the total risk.

4.3.1. Risk allocation

Risk allocation is an important issue in the design of contracts. Often is assumed (but true) that large firms are less adversarial risk than farmers. There are a number of reasons that support this conclusion. For owners of large firms is easier to diversify their investments in the securities market (stock exchange). In contrast, manufacturers often have a higher debt ratio and, consequently, few opportunities for diversification of investments. Recognizing that producers are risk averse, and the processor is neutral, it makes us appreciate that the processor must take all the risks and the manufacturer must accept constant payments.

However, it should be noted that this will generate motivation problems, which means that a manufacturer who receives a constant payment can reduce its efforts without reason, therefore, does not provide a constant charge stimulus efforts. For this reason, risk sharing agreement must take into account the conflict between efficient sharing of risk and motivation. It is not necessary to be imposed in various kinds of producers risks in order to assure proper motivation. It should be emphasized that agricultural production is subject to various sources of risk. Often, manufacturers are affected by overall risk, for example, weather conditions.

4.3.2. Risk minimization

The contract in itself (the word is to use long-term contracts and fixed prices of the product) can generate risk. What does it matters for a manufacturer is its total risk and it may actually increase revenue without change, while enabling cost components vary. One way to solve this problem is to avoid long-term contracts. However, this can cause uncertainty in behavior. Another possible solution is to agree that producer prices will follow a specific price index.

Another way to minimize the total risk is the risk allocation under the effects of bankruptcy. Another problem is asymmetric information in the process of negotiation. Asymmetric information can lead to not efficient a result of negotiation (bargaining). Consequently, the placement of a large portion of the producers risk can reduce the total risk in the production chain.

References

1. Peter Bogetoft, Henrik Ballebye Olsen, “Design of Production Contracts”, 2004
2. Heinrich Hockman, Jurgen Wandel, Wladimir Shaikin “Integratied structures in the agro-food sector, 2002
3. Holmstrom B., “Moral Hazard and Observability”, The Bell Journall of Economics, 1979
4. Williamson O., “The Economics Nature of the firm. Cambridge: Cambridge University Press, 1997.
5. Moss, C. B. and A. Schmitz. 2000. Vertical integration and trade policy: the case of sugar. Annual Meeting of the American Agricultural Economics Association. Tampa, 31 July – 2 August.