

COOPERATION OF TOBACCO PRODUCERS' GROUPS AND TOBACCO PROCESSORS OPERATING IN POLAND: A STUDY OF CONTRACTS

Dominika Malchar-Michalska
Opole University

Abstract. The main goal of this paper is to present contractual relations between Polish tobacco producer's groups and their purchasers (contract seasons: 2010/2011, 2011/2012, 2012/2013). The hypothesis of the research is based on the statement: "horizontal (agricultural producers' groups) and vertical (contracts) integration in agriculture lowers farmers' income risk and reduces transaction costs, which strengthens farmers' position in the negotiation process with their purchasers". In verifying the hypothesis, the author conducted empirical research among Polish tobacco producers' groups. The data were collected in the period between January and May 2013. The theoretical background for the research is built on the new institutional economics, contract theory and transaction cost theory. Results provide the supposition that contracts and cooperation within producer's groups lower farmers' income risk, but in the case of contractual arrangements not so significantly. It is caused by following factors: contracts are signed for one season only; they do not fulfill all commitments in contracts and they do not provide financial sanctions, neither for farmers nor for purchasers/first processors. Existing contracts between the tobacco industry and tobacco producers' groups or tobacco growers can be categorised as production contracts in agriculture. Also individual farmer's transaction costs of contracts are lower due to cooperation than tobacco producer's groups. Therefore one can state that quasi-hierarchical structures in the tobacco sector improve efficiency of member's farms.

Key words: contracts, transaction costs, new institutional economics, vertical integration in the agribusiness, agricultural producers' groups, tobacco industry

INTRODUCTION

Traditional agriculture used to be a self-sufficient sector, which resulted in farming not being integrated with other links of the food chain. Nowadays, with farming being part of

agribusiness, it has become increasingly specialised and businesslike. Changes in international agricultural markets (e.g. biotechnology development, the significant role of multinational corporations in food industry) have influenced transformations in Polish agriculture towards establishing contractual relations between farmers and their purchasers/buyers.

Experiences of Polish farmers both during socialism as well as the economic and political transformation provide the supposition that vertical integration in Polish agriculture (contractual relations) differs significantly from these kinds of relations in the United States or European countries. Moreover, in the literature of the subject, one can find an emphasis placed on the necessity of conducting research covering institutional or historical differences between countries [Agrawal 2002, Allen and Lueck 2003, Hueth, Ligon and Dimitri 2007].

The main goal of the paper is to present contractual relations between Polish tobacco producers' groups (henceforth TPGs) and their purchasers (first processors) in the contract seasons: 2010/2011, 2011/2012, 2012/2013, as well as contracts between TPGs and their members/tobacco farmers¹. The choice of this sector for the analysis was motivated by institutional regulations within Polish and European Union law in this area. They oblige Polish tobacco farmers to sell their crops (raw tobacco) under formal contracts. Moreover, if Polish tobacco farmers apply for financial support², they have to prove their contracts were signed through TPGs³. Consequently, they are the most integrated group of farmers in Poland. In 2010 there were 11,300 tobacco farms in Poland⁴ [GUS 2011] and 10,878 tobacco farmers were members of TPGs (in July 2013) [<http://ksow.pl/grupy-producentow-rolnych/warto-wiedziec.html>]. That means almost 96% of Polish tobacco farmers are members of TPGs⁵.

¹ This is part of a research project funded under the National Science Centre scheme SONATA-2 (UMO-2011/03/D/HS4/03386). The author would like to thank representatives of tobacco producers' groups who participated in the survey for helpful information on tobacco contracts and tobacco market in Poland.

² There are two types of financial support for tobacco farmers (both are supported by Polish budget). The first form is known as coupled complementary national direct payment to the raw tobacco sector (it is classed as Complementary National Direct Payments) [<http://www.minrol.gov.pl/pol/Wsparcie-rolnictwa-i-rybolowstwa/Platnosci-bezposrednie/Platnosci-bezposrednie-w-2012-roku/Platnosc-niezwiazana-do-tytoniu>]. The second kind of payment is specific support to improve the quality of tobacco introduced for years 2012 and 2013 [<http://www.minrol.gov.pl/pol/Wsparcie-rolnictwa-i-rybolowstwa/Platnosci-bezposrednie/Platnosci-bezposrednie-w-2012-roku/Platnosc-do-surowca-tytoniowego-wysokiej-jakosci>].

³ For European Union and Polish regulations concerning raw tobacco market see: [Council Regulations (EC), No 1782/2003; Council Regulations (EC), No 864/2004; Council Regulations (EC), No 1234/2007; Council Regulations (EC), No 1698/2007; Dz.U. z 2003 roku Nr 223, poz. 2221; Dz.U. z 2012 roku poz. 276; Dz.U. z 2012 roku poz. 274; Dz.U. z 2012 roku Nr 0, poz. 1456; Dz.U. z 2009 roku Nr 3, poz. 11].

⁴ The number of tobacco farms lowered by 16.3% between 2002 and 2010.

⁵ In 2012 Poland was the 7th largest importer of unmanufactured tobacco and tobacco refuse globally (HS code: 2401), mainly from Brazil (the Brazilian share was 30%), the United States (8.8%) and Germany (7.8%). In 2012 Poland was also the 3rd largest global exporter of cigars, cheroots and cigarettes (HS code: 2402), mainly to France (the share of Polish export was 23.3%), Italy (17%) and Germany (10.2%) [<http://www.trademap.org>].

MATERIAL AND METHODS

A contract (an agreement) in the agricultural sector (or in a broad sense in agribusiness) is signed by producers/farmers (agents) and processors (principals) when both parties can achieve profits⁶. According to Bogetof and Olesen [2004], a contract in agriculture should be signed (from the economic point of view) when the main aim is to maximize integrated profit⁷. These authors also indicate three objectives of each contract in agriculture: coordination⁸, motivation⁹ and transaction costs¹⁰.

What is more, one can identify four main forms of transaction coordination in agribusiness: spot market, marketing contracts, production contracts and full vertical integration. Focusing only on contract integration, the first type of contract contains such elements as: price¹¹, quantity and term of delivery. In some cases, marketing contracts can include instructions related to the quality of outputs, cultivation methods or chemicals used by farmers. The most important attribute of these types of contracts is that farmers still keep full control over management process in their own farms. In production contracts, the following elements are also defined/included: share of obligations between parties, price, quantity, term of delivery and services from the processor¹². One can thus indicate two types of production contracts in agriculture: production-management contracts¹³ and resource-providing contracts¹⁴ [Boland et al. 2002, MacDonald et al. 2004, Malchar-Michalska 2012].

In Figure 1, the scheme of the contractual relations between tobacco farmers (members of TPGs), tobacco producer's groups and their first processors is presented. One can claim that these organizations play the role of middlemen who coordinate transactions on

⁶ About contracts theory in Stankiewicz [2012], Brousseau and Glachant [2004].

⁷ For these authors it means that profits appear for farmers as well as processors. The first-best contract is the (Pareto-efficient contract) agreement resulting in the maximum integrated profit. Authors indicate that contracts coordinate production and also motivate both parties to make decisions leading to integrated profit. In their opinion, there is a conflict between coordination and motivation (e.g. prices play a dual role) which can be resolved by choosing the second-best solution.

⁸ A farmer produces and supplies accurate quantity and quality of agricultural outputs, at the right place and time. A processor receives goods which are relevant to its expectations.

⁹ To establish incentives or interests which should encourage all parties of a contract to undertake activities resulting in the integrated profit (due to individual profits).

¹⁰ They help to limit transaction costs related to planning or monitoring. Definition of transaction costs cf. Williamson [1998].

¹¹ The following types of prices exist: flat/fixed price and base price, the latter being reliant on the spot or futures market, it can also be increased/decreased depending on the quality of agricultural outputs or who covers the costs of transportation or warehouses.

¹² Contracts are always signed before the beginning of the production season in farming (marketing contracts can be signed any time).

¹³ Processors involved in the farming management system; farmers are usually responsible for deliveries of most agricultural inputs.

¹⁴ These contracts have a high level of vertical coordination by processors. Farmers play the role of suppliers of agrarian land and workforce. Processors provide agricultural inputs and also monitor production or cultivation system in farms.

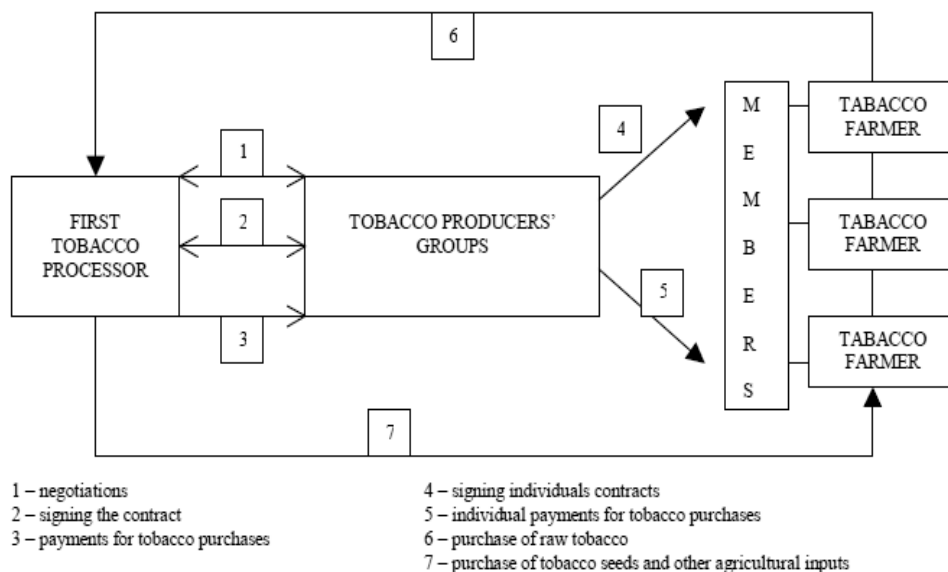


Fig. 1. The contractual scheme in tobacco sector

Source: own study.

the raw tobacco market¹⁵. That is why it is necessary to conduct research covering how they operate on that market and what impact they may have on their members. Taking into account the above-mentioned attributes of the raw tobacco market in Poland, the primary goal of the research was to verify the main hypothesis: horizontal (agricultural producers' groups) and vertical (contracts) integration in agriculture lowers farmers' income risk and reduces transaction costs, which strengthens farmers' position in the negotiation process with their purchasers. The author embarked upon an explanation for the following research questions:

- What types of contracts exist between TPGs and their purchasers? Are they marketing or production contracts?
- Are quasi-hierarchic modes of organisation a suitable form for transaction coordination in that sector?
- Do contracts help stabilize raw tobacco prices? Do they lower farmers's income risk?
- What kinds of transaction costs appear under contractual relations (for tobacco farmers and TPGs)?

There is a significant lack of data relating to agricultural TPGs in Poland. That was the main reason why the author decided to conduct empirical research among these entities, which are formally registered by Polish institutions. There were 11 registered TPGs in the end of 2012, which served as the statistical population. For the collection of empirical data, the survey method was applied. The questionnaire contained 25 questions and included 153 variables. The research was conducted between January and May 2013

¹⁵ TPGs are an example of hybrid organisations (like other agricultural producers' groups in Poland) [see: Ménard 2006, Malchar-Michalska 2011].

among 4 tobacco producer's groups. The empirical research related to tobacco contracts¹⁶ for three seasons: 2010/2011, 2011/2012 and 2012/2013¹⁷. Answers in the survey were given by managers of TPGs¹⁸.

Tobacco groups participating in the survey were established between 2003 (three of them) and 2004. By the end of 2012 they associated 4,781 members (tobacco growers which were around 44% of all tobacco farmers who were members of tobacco groups in Poland). 5,241 hectares were cultivated by all members of these TPGs, which means that one farmer cultivated in average around 1.3 hectares of tobacco by the end of 2012. All these groups were created on the basis of former tobacco associations/federations.

RESULTS AND DISCUSSION

The primary buyers of raw tobacco from TPGs are shown in Table 1. During tobacco seasons 2010/2011, 2011/2012 and 2012/2013, almost 100% of sales were made to first processors (henceforth FPs)¹⁹ who TPGs had signed contracts with²⁰. Only one examined

¹⁶ The Polish civil code contains provisions on contractual relations in agriculture (articles 613–626) [<http://kodeks-cywilny.org>]. However, it should be emphasized that the paper's goal is not to compare tobacco contracts to regulations in the civil code. In this case tobacco contracts are treated as form of market relations and as a precise example of inter-firm contracts/agreements.

¹⁷ The tobacco marketing season refers to the period between September and March of the following year when first processors buy contracted raw tobacco from growers. The growing and harvest tobacco/production season covers the period from March to September. Contracts with first processors are usually signed in February or March, before the production season begins. The author uses the term 'tobacco season' to describe the period under the duration of the contracts.

¹⁸ The author invited all tobacco groups which operated in the beginning of 2013, but only four of them agreed to take part in the survey.

¹⁹ The first processor is a company approved and registered by the Agricultural Market Agency (AMA; the Agency for Restructuring and Modernisation of Agriculture is the paying agency; ARMA), which buys raw tobacco from farmers. If a tobacco farmer wants to get specific support to improve the quality of tobacco, they should have a contract with FPs and farmers should also deliver to FPs raw tobacco classed as high quality (most of FPs in Poland sign contracts with TPGs, they do not negotiate with individual tobacco growers). In the registry of FPs for 2012/2013 there were 10 companies: Philip Morris Polska Tobacco Sp. z o.o., Universal Leaf Tobacco Poland Sp. z o.o., FTK Sp. z o.o., PRAXIS Sp. z o.o., LUXOR Sp. z o.o., AGROSAB Sp. z o.o., LUXTAB Sp. z o.o., Nikos Gleoudis KAVEX S.A., Cesarsko-Królewskie Laboratorium Tytoniowe Sp. z o.o., Łukowa Tobacco Company Sp. Cywilna Michał Hyz, Mieczysław Pękala. In 2012, a productivity capacity of FPs within the scope of primary raw tobacco processing was 87,720 tons (according to the AMA). Philip Morris, Universal and FTK could process 68% of the total sum indicated by the AMA. For the season 2013/2014, AMA approved 14 companies as FPs (AMA added to the previous registry following companies: Tobaccoland Piotr Perzanowski, Burley Tobacco Trading Poland Sp. z o.o., Krzysztof Knap „AGRO”, TOBACCOLEAF – ZEN Zenon Pękalski). The productivity capacity of FPs for 2013/2014 is 91,740 tons of raw tobacco, of which Philip Morris, Universal and FTK have a share of 65%.

²⁰ Between 2010 and 2012 there were different fiscal regulations (excise tax on tobacco) related to tobacco selling than in 2013. That is why the author indicated in the survey so many potential buyers of raw tobacco from TPGs. In the beginning of 2013 many of them disappeared from the Polish market.

entity indicated that around 2–3% of members' harvest was sold for pharmaceutical purposes (only in 2010/2011 and 2011/2012 seasons). In all three analysed seasons, TPGs cooperated with the same FPs. Each group had signed contracts with three or four FPs for one tobacco season²¹. It should be emphasized that in each tobacco season all groups had their contracts with Philip Morris. Three of them also had agreements with Unilever and LUXOR. TPGs had also signed contracts with FTK, AGROSAB and PRAXIS.

Moreover, Philip Morris was the largest buyer of raw tobacco for all TPGs. All first processors contracted from these four TPGs to supply 16,633 tons of raw tobacco for the season 2012/2013. The share of all contracted supplies to Philip Morris were around 60%²². It should be added that from season to season groups signed contracts for smaller and smaller quantities of supplies, and the decrease in all four TPGs was around 20% between 2010/2011 and 2012/2013²³.

Table 1. Main buyers of raw tobacco from TPGs in 2010–2013 (the number of answers)

Buyers	Share in selling (%)					
	0	0–25	25–50	50–75	75–100	100
First processors	0	0	0	0	1	3
Tobacco warehouses	4	0	0	0	0	0
Sales via the Internet	4	0	0	0	0	0
Sales to tobacco shops	4	0	0	0	0	0
Sales to individual buyers for pharmaceutical using	3	1	0	0	0	0
Sales to individual buyers for garden using	4	0	0	0	0	0
Sales to individual buyers for raising doves using	4	0	0	0	0	0
Sales to individual buyers for other using	4	0	0	0	0	0

Source: own study.

In Table 2, tasks performed by TPGs are enumerated. Analysing them, one can claim that in most cases TPGs assume the role of marketing groups. They focus on actions like: seeking raw tobacco buyers, running negotiations with buyers, monitoring payments/settlements under contracts between FPs and tobacco farmers²⁴, collective buying of agricultural inputs²⁵. Members of these organisations can also reach for help with documentation related to direct payments, coupled complementary national direct payments to the

²¹ In statutes of all TPGs there were regulations that members had to sell raw tobacco only through the group. Between seasons 2010–2013 none of these groups were selling raw tobacco from non-member farmers.

²² It seems that Philip Morris is able to have the biggest impact on the Polish tobacco market (especially on prices paid to farmers under contracts). One can say that the market of tobacco processors in Poland is an oligopoly where Philip Morris is the leader. However, more thorough research should be done to prove this thesis.

²³ The quantity of delivery in contracts can be different from the real quantity of purchases (usually they are lower than the contracted quantity of tobacco).

²⁴ FPs pay for delivery to TPGs and then that group settles the payment to farmers.

²⁵ The range of agricultural inputs is not wide. TPGs offer postponed payments for collective buying.

Table 2. Main tasks of tobacco agricultural producer's groups in Poland (number of answers)

Tasks	Number of answers (survey sample = 4)	
	YES	NO
Collective storage of tobacco leaves	0	4
Collective curing of tobacco leaves	0	4
Collective cutting of tobacco leaves	0	4
Monitoring of tobacco quality	0	4
Helping to employ workers for tobacco farming	0	4
The settlement of payments between first processor and contract leaf growers	4	0
Financial support for members e.g. delaying invoice payment	3	1
Helping with formal cases/actions for tobacco farmers – without any payment e.g. preparing applications for national direct payment to raw tobacco	4	0
Collective buying, e.g. agricultural inputs (the price of buying by TPG = the price of selling for members)	4	0
Organizing workshops for tobacco farmers	4	0
Collective action to hire vehicles to transport tobacco leaves or other farm machinery	1	3
Helping to lease agricultural land	0	4
Collective insurance of tobacco harvest	0	4
Helping with individual insurance for members (home insurance, harvest insurance)	2	2

Source: own study.

raw tobacco sector, specific support to improve the quality of tobacco. They also would arrange workshops for members and try to inform them on a regular basis about the situation on the tobacco market or changes in regulations covering this sector. Moreover, leaders/representatives of TPGs were lobbying against unfavourable changes in tobacco regulations, especially those related to subsidies to raw tobacco production.

Collective storage, curing or cutting tobacco leaves (an initial stage of raw tobacco processing) were not performed by any TPGs. They did not own warehouses or transportation facilities and they did not provide any logistic services/operations for their members²⁶. Neither of these entities offer/arrange collective crop insurance for tobacco farmers. Only two TPGs arranged meetings with insurance sale agents who offered individual crop, home and life insurance²⁷. They did not provide any services related to the recruitment process or legal advice on how to lease or buy agricultural land.

²⁶ All TPGs got the financial support to set up agricultural producer's groups (according to domestic law about agricultural producer's groups from 2000 [Dz.U. z 2000 roku nr 88, poz. 983]). All spent these financial resources on administrative actions (e.g. computers, office equipment).

²⁷ However, insurance agents presented the same offers which were available on the market. The biggest advantage for farmers was the reduction of costs related to seeking out insurance (costs of information). On the other hand, farmers were not sure whether these offers were the best option from all solutions available on the market.

All tobacco groups which took part in the survey had contracts with first processors during tobacco seasons 2010/2011, 2011/2012 and 2012/2013. What is the most important issue, despite the fact that these groups had contracts each time with the same processors, is that agreements were signed only for one season²⁸. All tobacco contracts had the following terms: quantity of raw tobacco delivery, fixed prices for 1 kg of raw tobacco in PLN (contracts contained a wide range of fixed prices). Prices differed in the variety of tobacco (Burley or Virginia tobacco and others), class, stalk position, ripening of tobacco leaves, leaf structure and colour of tobacco, mechanical damages of leaves and disease damages of tobacco²⁹. It is also required that raw tobacco should be delivered in bales to delivery stations. The contracts also contained a general date of delivery, which was indicated in the period between September to March. Buyers were supposed/obliged to pay for their purchase 30 days after delivery. All contracts also contained instructions covering chemicals allowed to be used by farmers³⁰ (see Table 3).

Another interesting fact is that the largest first processors such, as Philip Morris or Universal, were also offering tobacco seeds for free under tobacco contracts (both companies recommend using them)³¹. These two processors also legally obligated farmers to open their cultivation lands to corporate controllers. This means that controllers can visit tobacco farms at any time without prior notification. They checked whether farmers were following all contractual instructions. The result is that tobacco farmers under contracts need to share or even lose some attributes of their property rights to land and management of tobacco growing. One can even label these situations an example of “a controlled freedom of tobacco farmers”. Such instructions/legal conditions of tobacco contracts allow to categorise them as production contracts.

Furthermore, contracts with Philip Morris (also with Universal company) contained regulations related to the necessity of the introduction of environmentally friendly methods of farming and good agricultural practices (GAP). Under GAP farmers were obliged to use non-GMO tobacco seeds, not to employ children on tobacco farms, to employ workers only according to legal standards or/and to protect workers against green tobacco

²⁸ Respondents indicated that in previous decades they did not have long-term contracts (for more than one season).

²⁹ Each farmer got an attachment to their contract where fixed prices for each category of delivered tobacco leaves was set (farmers knew the price before they started the cultivation process). For season 2012/2013 higher prices were offered for Virginia tobacco. Moreover, respondents said that farmers got lower prices for raw tobacco than in season 2011/2012, which could be caused by the introduction of additional tobacco payments by the Polish government (specific support to improve the quality of tobacco). In the author's opinion that support is questionable. The impact of quality payments on the raw tobacco market should be researched further, including who received profit: farmers or tobacco companies.

³⁰ Tobacco contracts had a registry of recommended pesticides (without any trademark) where also active ingredients are enumerated and periods when farmer can use them. Each processor usually sets different recommendations, which is why sometimes certain problems appear, especially for farmers who have contracts with more than one processor.

³¹ High quality tobacco seeds were usually not delivered for free.

Table 3. Elements of tobacco contracts (number of answers)

Features of Tobacco Contracts	Number of answers (survey sample = 4)	
	YES	NO
Fixed prices (prices depend on the quality and tobacco type)	4	0
Quantity of the purchase/delivery	4	0
Date of delivery (from September to March)	4	0
Terms of payments (30 days from the buyers' acceptance of products)	4	0
Specific tobacco types (Virginia or Burley tobacco)	4	0
Quality of raw tobacco delivered to the first processor	4	0
Maximum residual for chemicals in raw tobacco	4	0
Maximum level of moisture content in raw tobacco	4	0
Obligation to use tobacco seeds delivered by the first processor	3	1
Obligation to use specific chemicals	4	0
Obligation to use specific methods of tobacco cultivations by farmers	3	1
Fines for delivery not on time or poor quality of tobacco	1	3
Access for corporate representatives to tobacco farms in order to check conditions set in tobacco contracts	4	0
Obligation for environmental protection by tobacco farmers	4	0
Obligation to introduce good practices in tobacco farming (mainly Philip Morris and Universal)	4	0

Source: own study.

sickness [see: www.pmi.com]. These processors also required from farmers to not over-use chemicals/pesticides during tobacco farming³².

It should be emphasized that most contracts did not include any financial sanctions for farmers (e.g. for delivery of polluted tobacco by illicit chemicals³³) nor for processors (e.g. processor did not buy all quantities of raw tobacco indicated in the contract). In the author's opinion the lack of these kinds of regulations resulted in two important functions/objectives of contracts: risk-sharing and the reduction of risk (especially for farmers) were not fulfilled in an optimal way. Farmers, despite having contracts usually with more than one processor, still take a significantly bigger risk than processors. In the opinions of respondents, the highest risk was related to the quantity of purchases by processors (buyers bought smaller amounts of raw tobacco)³⁴. It should be noted that

³² This is an official global policy of the world largest tobacco companies (a social responsibility strategy). In that way tobacco companies want to improve their image.

³³ In case of natural disasters, farmer's responsibility for a lack of delivery is excluded.

³⁴ Between 2010 and 2012 all of these groups accused processors of breaking rules under contracts (and vice versa). Only one farmer filed a lawsuit against a processor. Respondents said that a refuse of purchase from the farmer or not signing a contract for next season are the most common sanctions used by processors (for example when a controller detects banned pesticides on the tobacco farm).

TPGs were not supported by legal advisers when running contract negotiations with tobacco processors.

Farmers were also formally obliged to provide other additional services under contracts (especially with Phillip Morris and Universal companies; see Table 4). In return, tobacco producers got free help from agronomists during the tobacco growing period. Processors organised workshops for farmers where highly qualified experts presented new methods of tobacco farming. They also provided protective clothes to be used during work on farms. Processors, however, did not provide any financial support/services for farmers under contract such as loans. Only in the case of one group did the possibility to get a pre-payment from the processor appear.

Table 4. Other services delivered to contract leaf growers (number of answers)

Services	Number of answers (survey sample = 4)	
	YES	NO
Free educational trainings for tobacco farmers (methods of tobacco cultivations)	4	0
Free materials for tobacco growers	4	0
Free tobacco seeds	4	0
Free help from agronomists	4	0
Sale of chemicals for tobacco farmers	4	0
Financial support for tobacco farmers, e.g. loans	0	4
Financial support for tobacco farmers, e.g. pre-payment for delivery	1	3

Source: own study.

One of the main aims of setting up a TPG is the reduction of individual farmers' transaction costs related to contracts with processors. Table 5 shows transaction costs (TCs) identified due to the survey and covering contractual relations between tobacco growers, producers' groups and first processors. Analysing them, even without any attempt to measure them, one can claim that individual TCs were reduced thanks to membership in TPGs. Farmers paid lower costs of contract negotiations, however these costs were included in membership fees (indirect costs)³⁵. Farmers also covered the costs of broken/unfulfilled conditions of contracts. In the author's opinion some of them could have been undertaken by TPGs. It should be also emphasised that contracts with tobacco farmers caused the appearance of transaction costs, which would probably be higher if

³⁵ Costs related to transportation or tobacco storage were not reduced, which was caused by the fact that these groups acted only as marketing organisations. All costs related to farms' investments in specific asset, transportation delivery locations, introduction of good agricultural practices in tobacco farming etc. were paid individually.

Table 5. The identification of transaction costs related to raw tobacco contracts

CONTRACT LEAF GROWERS	TOBACCO AGRICULTURE PRODUCER GROUPS	"FIRST PROCESSOR"
<ul style="list-style-type: none"> – Membership fee in tobacco agricultural producers' group, – Costs relating to adoption of good practises in agriculture (e.g. Philip Morris – the Programme of Good Agricultural Practise), – Storage if the "first processor" does not buy raw tobacco 	<ul style="list-style-type: none"> – Contract negotiations with "first processors" – ex ante costs, – Realization/execution of contracts (e.g. payments between first processor and tobacco farmers), – Re-negotiation of contracts or costs of legal services – ex post costs, – Costs related to information seeking on tobacco market, changes in Polish or European regulations 	<ul style="list-style-type: none"> – Tobacco contract negotiations, – Tobacco seeds (distributed for free among farmers), – Salaries of agronomists who cooperate with tobacco farmers, – Monitoring costs of tobacco cultivation, – Costs related to arrange delivery points, – Late delivery fees or other problems with contract leaf growers, – Introduction or monitoring of good practises in agriculture, – Costs related to workshops, brochures, etc. for contract leaf growers

Source: own study.

they were contracts to be negotiated with individual farmers. One can say that thanks to contracts both parties are able to lower transaction costs and risks³⁶, which suggests that an integrated profit may be achieved.

CONCLUSIONS

Results of the empirical survey can be interpreted as follows:

- Existing contracts between the tobacco industry and Polish tobacco TPGs or tobacco growers can be categorised as production contracts in agriculture. Contracts with tobacco farmers include standard provisions, such as: price, quantity, quality, type of tobacco and also regulations related to methods of cultivation, tobacco seeds and chemicals requirements, monitoring of the cultivation system in farms, the safety and health of workers/farmers on tobacco farms, employment of children or the access to farms for corporate consultants;

³⁶ A further study on risk sharing between all parties of contracts should be conducted. Preliminary results show that farmers still take more risk than their processors.

- The income risk of TPGs members (tobacco farmers) was not significantly lowered despite the fact that tobacco TPGs signed contracts with their purchasers. This unfavourable situation for tobacco growers is caused by the following factors: contracts are signed for one season only; they do not enforce all commitments in contracts and they do not provide financial sanctions, neither for farmers nor for tobacco companies;
- The membership of tobacco farmers in TPGs reduces individual transaction costs of contracts. Therefore, one can state that quasi-hierarchical structures in the tobacco sector improve efficiency of the member's farms;
- Tobacco producer's groups function as marketing groups, which is the simplest form of horizontal integration despite the fact that tobacco farmers are the most integrated group in Polish agriculture. This also means that they do not enter into the next stage of agribusiness and do not become tobacco manufacturers³⁷;
- The negotiation power of tobacco farmers was improved by strong cooperation between TPGs in Poland. Certain factors can be identified which have a strong negative impact on negotiation results. These are: the oversupply of tobacco leaves in Poland, imports of tobacco leaves, an oligopolistic structure of tobacco industry in Poland³⁸, domestic and European regulations related to the tobacco trade.

REFERENCES

- Agrawal P., 2002. Incentives, Risk, and Agency Costs in the Choice of Contractual Arrangements in Agriculture. *Review of Development Economics*, 6 (3), 460–477.
- Allen D.W., Lueck D., 2003. *The Nature of Farm. Contracts, Risk, and Organization in Agriculture*. The MIT Press Cambridge, Massachusetts.
- Bogehoft P., Olesen H.B., 2004. *Design of Production Contracts: Lesson from Theory and Agriculture*. Copenhagen Business School Press DK, Copenhagen, 48.
- Boland M., Borton D., Domine M., 2002. *Economic Issues with Vertical Coordination*. Department of Agricultural Economics, Kansas State University, Kansas, 3–6.
- Brousseau E., Glachant J.M., 2004. *The Economics of Contracts. Theory and Applications*. University Press, Cambridge.
- Council Regulations (EC), No. 1782/2003.
- Council Regulations (EC), No. 864/2004.
- Council Regulations (EC), No. 1234/2007.
- Council Regulations (EC), No. 1698/2007.

³⁷ Due to very high costs of entry into the tobacco industry and due to the structure of this sector which is divided between few global players (global companies), it is unlikely that tobacco producer's groups can set up their own companies. In the future these entities/groups can try to integrate their own resources for common tasks like transportation or storing. That is why TPGs remain marketing groups. Considering possible directions of vertical integration in this sector they may lead to reverse vertical integration where tobacco companies take over the function of cultivation of raw tobacco.

³⁸ As well as in other parts of the world. In 2010 the three leading global tobacco companies were: Philip Morris International (market share outside the United States was 16%; without Chinese market – 28%), China National Tobacco Corporation and Japan Tobacco [<http://www.reportlinker.com>].

- GUS, 2011. Uprawy rolne i wybrane elementy metod produkcji roślinnej. Powszechny Spis Rolny 2010 [Agricultural crops and selected elements of plant production methods. National Agricultural Census 2010]. Warszawa, 60 (in Polish).
<http://kodeks-cywilny.org/III-zobowiazania/kontraktacja> [Access: 30.11.2013].
<http://ksow.pl/grupy-producentow-rolnych/warto-wiedziec.html> [Access: 24.07.2013].
<http://www.minrol.gov.pl/pol/Wsparcie-rolnictwa-i-rybolowstwa/Platnosci-bezposrednie/Platnosci-bezposrednie-w-2012-roku/Platnosc-niezwiązana-do-tytoniu> [Access: 24.07.2013].
<http://www.minrol.gov.pl/pol/Wsparcie-rolnictwa-i-rybolowstwa/Platnosci-bezposrednie/Platnosci-bezposrednie-w-2012-roku/Platnosc-do-surowca-tytoniowego-wysokiej-jakosci> [Access: 24.07.2013].
http://www.pmi.com/pol/about_us/how_we_operate/pages/good_agricultural_practices.aspx [Access: 25.07.2013].
<http://www.reportlinker.com/ci02053/Tobacco.html> [Access: 31.11.2013].
<http://www.trademap.org> [Access: 24.07.2013].
- Hueth B., Ligon E., Dimitri C., 2007. Agricultural Contracts: Data and Research Needs. *American Journal Agricultural Economics* 89 (5), 1276–1281.
- MacDonald J., Perry J., Ahearn M., Banker D., Chambers W., Dimitri C., Key N., Nelson K., Southard L., 2004. Contracts, Markets, and Prices. Organizing the Production and Use of Agricultural Commodities. Agricultural Economic Report No. 837. USDA November, 3–6.
- Malchar-Michalska D., 2011. Agricultural producer groups in Poland as a tool of sustainable development of rural areas. *Economic and Environmental Studies* 11 (1), 11–26.
- Malchar-Michalska D., 2012. Powiązania kontraktowe w polskim rolnictwie na przykładzie grup producentów rolnych [Contractual relations in the Polish agriculture – the case of agricultural producers' groups]. *Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu* 14(1), 299 (in Polish).
- Ménard C., 2006. Hybrid Organization of Production and Distribution. *Revista de Análisis Económico* 21 (2), 25–41.
- Rozporządzenie Ministra Rolnictwa i Rozwoju Wsi z dn. 14 marca 2012 roku w sprawie wymagań jakościowych dla tytoniu [Regulation of the Ministry of Agriculture and Rural Development of 14 March 2012 on quality requirements for raw tobacco]. *Dz.U. z 2012 r. poz. 274* (in Polish).
- Rozporządzenie Ministra Rolnictwa i Rozwoju Wsi z dn. 14 marca 2012 roku w sprawie rejonów uprawy tytoniu [Regulation of the Ministry of Agriculture and Rural Development of 14 March 2012 on tobacco region cultivation]. *Dz.U. z 2012 r. poz. 276* (in Polish).
- Stankiewicz W., 2012. *Ekonomika instytucjonalna. Zarys wykładu. Wydanie III uzupełnione* [The Institutional Economics. Lecture Outline. 3rd Edition]. Warszawa, 99–134, http://pwsbia.edu.pl/pdf_files/Waclaw_Stankiewicz_Ekonomika_Instytucjonalna_III.pdf [Access: 30.11.2013] (in Polish).
- Ustawa z dn. 15 września 2000 roku u grupach producenckich i ich związkach [Act of 15 September 2000 on agricultural producers' groups and their unions]. *Dz.U. z 2000 r. nr 88, poz. 983* (in Polish).
- Ustawa z dn. 19 grudnia 2003 roku o organizacji rynków owoców i warzyw, rynku chmielu, rynku suszu paszowego oraz rynków lnu i konopi [Act of 19 December 2003 on market organisation for fruit and vegetable, hop market, fodder plant market and market for flax and hemp]. *Dz.U. z 2003 r. nr 223, poz. 2221* (in Polish).
- Ustawa z dn. 6 grudnia 2008 roku o podatku akcyzowym [The Excise Duty Act, 6 December 2008]. *Dz.U. z 2009 r. nr 3, poz. 11, art. 99a* (in Polish).
- Ustawa z dn. 7 grudnia 2012 roku o zmianie niektórych ustaw w związku z realizacją ustawy budżetowej [Act of 7 December 2012 changing selected acts related to the budget act]. *Dz.U. z 2012 r. nr 0, poz. 1456* (in Polish).
- Williamson O.E., 1998. *Ekonomiczne instytucje kapitalizmu* [The Economic Institutions of Capitalism]. PWN, Warszawa, 33–35 (in Polish).

WSPÓLPRACA GRUP PRODUCENTÓW TYTONIU Z PRZETWÓRCAMI TYTONIOWYMI W POLSCE. PRZYKŁAD KONTRAKTOWANIA

Streszczenie. Głównym celem artykułu jest analiza procesu kontraktacji wśród grup producentów tytoniu w Polsce w sezonach 2010/2011, 2011/2012 i 2012/2013. Przyjęta hipoteza brzmi integracja pozioma (grupy producenckie) oraz pionowa (kontraktacja) przyczyniają się do zmniejszenia ryzyka i kosztów transakcyjnych oraz wzmocnienia pozycji negocjacyjnej polskich plantatorów tytoniu. Dla jej weryfikacji przeprowadzono między styczniem i majem 2013 roku badania ankietowe wśród czterech grup producentów tytoniu w Polsce. Tło teoretyczne dla przeprowadzonych badań stanowiła nowa ekonomia instytucjonalna. Wyniki empiryczne pozwalają wnioskować, że dzięki kontraktacji zmniejsza się ryzyko dochodowe plantatorów (członków grup producenckich), choć w przypadku kontraktów z pierwszymi przetwórcami nie tak znacząco. Jest to spowodowane m.in. tym, że kontrakty zawierane są tylko na jeden sezon produkcyjny, a także brakiem egzekwowania wszystkich postanowień zawartych w umowach oraz brakiem sankcji finansowych zarówno dla odbiorców/pierwszych przetwórców, jak i rolników. Umowy kontraktacji między przemysłem tytoniowym a rolnikami mogą być zakwalifikowane jako kontrakty produkcyjne. Ponadto indywidualne koszty transakcyjne plantatorów tytoniu ulegają zmniejszeniu dzięki kooperacji w ramach grup producenckich. Dlatego można stwierdzić, że te quasi-hierarchiczne struktury w sektorze tytoniowym poprawiają efektywność członkowskich gospodarstw rolnych.

Słowa kluczowe: kontrakty, koszty transakcyjne, nowa ekonomia instytucjonalna, integracja pionowa w agrobiznesie, grupy producentów rolnych, przetwórcy tytoniu

Accepted for print – Zaakceptowano do druku: 08.11.2013