

improving their education, improving transport services in developing rural infrastructure. It also requires strong social support from the government

for families with children under the age of 3, which affects the decline in family income.

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## TOMORQA XO`JALIKLARINI AFZAL BILGAN SHARTNOMA DIZAYN XUSUSIYATLARI, SAMARQAND VILOYATI MISOLIDA

**Pardaev Xusniddin Abdimuminovich** –  
Toshkent davlat iqtisodiyot universiteti doktoranti

**Abstract.** Ushbu maqola tomorqa xo'jaliklarini pomidor ishlab chiqarish va sotish bo'yicha shartnoma tuzishga undovchi xususiyatlarni aniqlashga qaratilgan. Ma'lumotlar Samarqand viloyatining oltita tumanidagi 197 ta tomorqa yer egalari bilan so'rovnomalar usulida yig'ildi. Shartnoma xususiyatlari dizayni va tomorqa yer egalari shartnomani qabul qilishga xohish-istaklari analizi Diskrit tanlov experimenti va Shartli logistik regressiya modellari asosida qilindi. Tahlillarimiz shuni ko'rsatdiki, tomorqa yer egalari uchun mahsulot ishlab chiqarish bozori va sifat ko'rsatkichlari ishlab chiqarish ta'minoti bilan bog'liq noaniqliklarga qaraganda muhimligi isbotlandi. Ularning xaridorlar va xom-ashyo ta'minotchilari bilan shartnoma tuzishga moyilligi yuqori ekanligini ko'rsatdi. Tomorqa yer egalari uchun yozma shartnomaning mavjudligi ularning shartnoma tuzish istagini 80,3% ga va xom-ashyo ta'minoti 12,7% ga oshirishi aniqlandi. Saralash, mahsulot qiymatini bir oy oldindan va yetkazib berilgandan bir oy keyin to'lash va xaridor manziliga yetkazib berish xususiyatlari esa salbiy ta'sir ko'rsatishi aniqlandi. Tahlil natijalaridan shu narsa ayon bo'ldiki, tomorqa yer egalari kafolatlanmagan narx va bozorni xohlamasligi ko'rindi. Ular risklarni minimallashtirish va daromadlarni kafolatlash uchun xaridorlar va ta'minotchilar bilan shartnoma asosida mahsulot ishlab chiqarishga moyilligini ko'rsatdi.

**Kalit so'zlar:** Tomorqa xo'jaliklari, shartnoma atributlari, to'lovga tayyorlik, qishloq xo'jaligi oziq-ovqat ta'minoti zanjiri.

ПРЕДПОЧТЕНИЯ МЕЛКИХ ЗЕМЛЕВЛАДЕЛЬЦЕВ В ОТНОШЕНИИ АТРИБУТОВ  
КОНТРАКТНОГО ПРОЕКТИРОВАНИЯ НА ПРИМЕРЕ САМАРКАНДСКОЙ ОБЛАСТИ

*Пардаев Хусниддин Абдимуминович –  
докторант Ташкентского государственного  
экономического университета*

**Абстракт.** Эта статья направлена на выявление признаков, которые могут побудить мелких землевладельцев заключить контрактные фермерские схемы для производства и продажи томатов. Они опросили 197 мелких фермеров-волонтеров из шести регионов Самаркандской области. Эксперимент с дискретным выбором и модели условной логистической регрессии, применяемые для анализа важности атрибутов дизайна контракта и готовности принять. Исследования неопределенностей рынка выходной продукции и обеспечения качества более важны, чем неопределенности рынка исходных материалов. Мелкие землевладельцы склонны заключать контракты с покупателями и поставщиками полных ресурсов. Наличие письменных соглашений для мелких землевладельцев свидетельствует о повышении готовности к заключению контрактной схемы на 80,3% и обеспечению полностью вводимых ресурсов на 12,7%. Сортировка, оплата товара за месяц вперед и один месяц после доставки, а также доставка в адрес покупателя оказались затронутыми негативно. Выявлено, что сортировка, оплата товара за месяц вперед и один месяц после доставки, а также доставка по адресам покупателя оказывало негативное влияние. Результаты указывают на интересные выводы о том, что мелкие землевладельцы не будут склонны к негарантированным ценам и рынку. Они хотят производить продукцию на контрактной основе с покупателями и поставщиками или организациями, чтобы минимизировать риски и гарантировать возврат.

**Ключевые слова:** Мелкие собственники, атрибуты контрактов, готовность платить, агропродовольственная цепочка поставок.

SMALLHOLDERS` PREFERENCES FOR CONTRACT DESIGN ATTRIBUTES,  
A CASE OF SAMARKAND PROVINCE

*Pardaev Khusniddin Abdimuminovich –  
PhD student at Tashkent State University of Economics*

**Abstract.** This article aims to identify the attributes that can be motivated smallholders to enter into contract farming schemes for the production and sale of tomatoes. They interviewed 197 volunteer smallholders were among six regions of Samarkand province. Discrete Choice Experiment and Conditional Logistic Regression Models applied to analyze the importance of contract design attributes and Willingness-to-accept. Output market and quality assurance uncertainties studies are more important than input market uncertainties. Smallholders are inclined to arrange the contract with buyers and full-input resources suppliers. The availability of written agreements for smallholders founded that to increase the readiness to enter into a contract scheme by 80.3% and fully input resources provision by 12.7%. Sorting, a month before and after payment and delivery to the buyer place attributes are negatively affected. The results pointed out interesting insights that smallholders would not be inclined to non-guaranteed price and market. They want to produce products on a contract basis with buyers and suppliers or entities to minimize risks and guarantee returns.

**Keywords:** Smallholder, Contract attributes, Willingness-to-pay, Agri-food-supply chain

**Introduction.** Growth of the world population and social welfare, the demand for quantity and quality of food and other consumer goods is growing [2]. Issues of agricultural production, efficient use of resources, and ensuring an optimal management system play an essential role in meeting the rapidly growing demand.

In the last three decades, many different changes: the political reforms, increasing demand for food-stuff, and internationalization policy were affected agricultural production, productivity, diversification, and export [3] [4]. In this context, Simmons (2002) noted that the agricultural values and traditions changed into "cash culture." Essentially, for that reason of changes in the supply food chain, smallholders met several difficulties such as market imperfection, no input provision, high risk and transaction cost, and far from modern technology to producing agricultural food[6]. Several studied kinds of literature represented that smallholder

participation in contract farming schemes is positively affected to minimize the difficulties in many developing and transition economy countries [6] [7] [8]. Furthermore, a contract farming scheme reduces transaction costs, risk, market imperfections, and uncertainty around prices [9].

Two-thirds of developing and transition economy countries` population of the world is active in smallholder farming. These types of farms account for only few amount of total farmland, on the other hand producing almost 80% of world agricultural food [10]. These indicators are closely similar in the Republic of Uzbekistan. According to the statistics, 66.3% of vegetables, 82.1% of potato, 54.3% of melons, 56.9% of fruits, 54.8% of grapes, 90.1% of meat, 94.3% of milk, 58.5% of eggs, and 48.8% of produced fish products belonged smallholders, in 2020[23]. Especially, smallholders are playing the crucial role of producing the consumption food in the agri-food supply chain.

In Uzbekistan, the systems of supply, trade, and quality control of production processes are not enough formed. In addition, the production system and sales are remaining in traditional form. Production efficiency is very low, and opportunities for efficient use of resources are uncreated [1]. Therefore, one of the urgent issues is to improve the production system and marketing and to take measures to increase their income.

The main objective of this study is to investigate the relative importance of the various contracting features that motivate farmers to participate in the contract system. And analyze the probability of individuals taking up a covenant with specified attributes.

This article deep focused on improving the economic relations between smallholder and institutional units of the agri-food supply chain. In addition, it will investigate sacrificing the transaction costs, risks and reducing the costs of market imperfections in the Samarkand region. To achieve this goal is difficult to study all types of fruits and vegetables produced by smallholders. Therefore, only summer season-produced tomatoes are a template among other products in this investigation.

**Conceptual framework.** Contracts aim between the subjects at reducing the sale and transaction costs, incentives to better products, and sharing of risks [6] [11]. In the contract, the design would be the main problem the quality and price of a particular agricultural product, the provision of input resources, the coordination of a product, and delivery [12]. The conceptual framework reveals identifying the attributes which will help smallholders in Uzbekistan to overcome the problems in tomato production and its marketing.

In agriculture, the production of products and its` marketing is relatively more difficult under the uncertainties. These considered into input resources and technical assistance, output market, and product quality uncertainties: Input resources uncertainty is included in input resources provision, transporting, and technical assistance; Output market uncertainties are related to marketing and covenant specifications of subjects, including the price of the product, date of payment, place of sale, type of covenant, personal or institutional relation and contract lengths; Product quality uncertainty, includes the quality-related specifications such as product and production quality control. The listed above factors are directly related to the contract design, processing function, and contract attributes. Attributes are the only driver tool for motivation for smallholders to enter into the contract system and help the buyer supporting the production, control,

stimulate production, provide guaranteed prices and reduce transaction costs.

At the initial stages of the analysis, it is separated 12 contract design attributes from studied kinds of literature in the case of contract farming configuration of developing countries. Then 23 smallholders, six supermarkets in Samarkand city, 45 mini-markets in different villages of Samarkand province, eight leaders for *"Tomorqa xizmati"* LLC in six regions of Samarkand province, and four tomato processing company managers were interviewed.

According to the results of the interviews, six attributes with the highest number of votes were selected (Figure 1). In particular, in the contract for the production and sale of tomatoes, all respondents confirmed the importance of payment terms and product prices. Forty-six respondents rated the situation with the places of selling as having a high impact on the relationship between the subjects. Thirty-nine respondents stated that supply (seeds, fertilizers, chemicals, and machinery) motivates smallholders to inter into contract schemes. 36 and 34 respondents voted that the form of sale and the type of covenant had the highest effect. According to Green & Srinivasan (1990), applying the maximum six attributes is adequate for the Choice Experiment Model. We followed his argument, so the six most important were selected based on many features proposed for the choice experiment tasks.

Each of the selected contract attributes is divided into separate levels as follows (Table 1).

*Type of contract:* According to surveying the literature, verbal and written contract categories are separated [9] [15]. In principle, the oral agreements are informal, and it concludes when there is a certain degree of closeness (relationship, partnership, or acquaintance) between the parties. Fafchamps & Minten (2001) noted that most entrepreneurs prefer verbal contracts. Because such terms of contracts it is less responsible and can be variable. Conversely, Platteau (2000) argued that despite the high level of responsibility and cost of formal agreements, they have higher levels of utility. Thus, it is provided two attribute levels for smallholders' selection by contract form in the choice tasks.

*Price.* Price is one of the main attributes of a contract to produce and vend a product. In the last five years, during the seasons of realization of tomato harvest in the open fields (June, July, August, September, and October), the average observation of the dynamics of prices for tomatoes was observed in the range of 1000-4000 sums. Therefore, in our choice task, we included a proposal for four price units.

Pilot study results<sup>a</sup> (n=51)

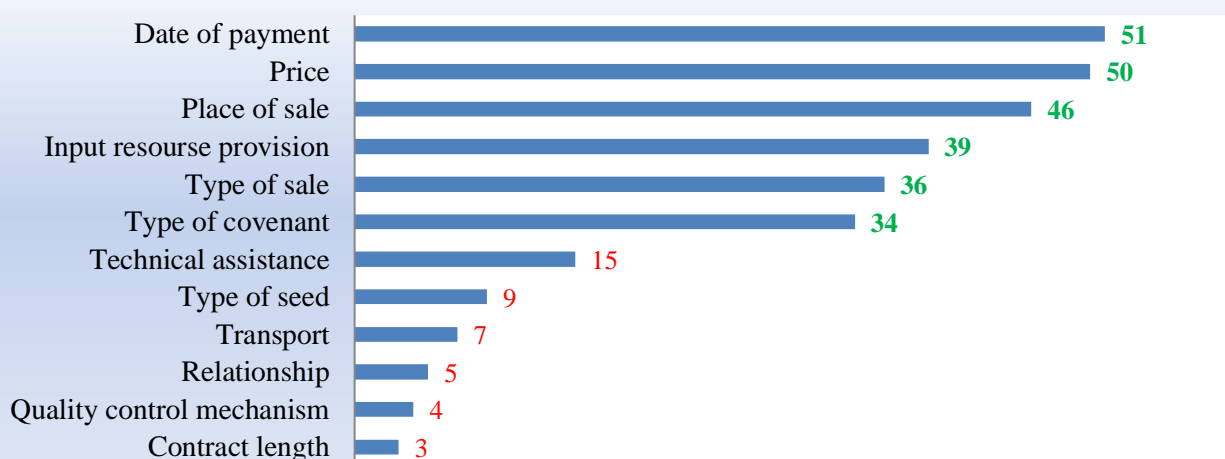


Figure 1. Pilot study results on identifying valuable attributes.

<sup>a</sup> Based on Masakure & Henson, (2005)

*Quality specification.* In the market of agricultural products, the price was through the quality of the product and its caliber. The reduction of quality inconsistencies in the market is directly related to its classification. Smallholders' nature is that they prefer to sell the product without calibration. However, if smallholders sell the product without calibration, the price of the product will decrease. Abebe et al. (2013) argue that product calibration requires smallholders to spend extra labor force, cost, and time. Product buyers want these costs

covered by smallholders [5]. Among the buyers of the product, only processing companies do not pay attention well to the calibration. Middlemen, clients in the local markets (bazaars), stores, and social institutions usually focus strongly on calibration, color, blemishes, and ripeness. One of the significant effects is a disagreement between the parties on the quality of the product. We expect that smallholders prefer without calibration contract or calibration one, ceteris paribus.

Table 1.

Smallholder choice experiment attributes and its levels

Type of attributes	Attribute levels
Form of contract	Verbal contract
	Written contract
Price option	1000 sums
	2000 sums
	3000 sums
	4000 sums
Quality specification	Without sorting
	Sorting
Payment time	Immediately after harvesting
	A month before harvesting
	A month after harvesting
Place of sale	Farmgate
	Provision to buyers' place
	Nearby market
Input supply arrangement (Based on wholesale price)	No input provision
	The provision only seed (or plant)
	Provision seed (or plant) and minerals
	Provision seed (or plant), minerals, and technical assistance
	Provision seed (or plant), minerals, technical assistance, and pests

*Payment time.* As in developing countries, the smallholders are very sensitive to the payment method and timing in Uzbekistan. Such output market uncertainty usually occurs with a government ins-

titution, processing, and social institution. In such budget organizations, payments can be a delay. For this reason, the payment method was in three same scattered types. Immediate payment after harvest-



ting or selling of tomato is as a basis and a month before and after. Usually, smallholders prefer the product payment at the time of selling the product. However, in some cases, they will be forced to delay payment methods. The shelf-life time of tomatoes is limited. According to Salas-Méndez et al. (2019) maximum of 15 days, it may prolong the lifetime under 20C<sup>0</sup> with a *Nano laminate* coating and Ethanol extracts of *F.cernua*. Therefore, tomato market values decrease over time.

*Place of sale.* Among the input market uncertainties, the sale place and market distance play a crucial role. These are comprised of packaging and transporting activities in it. Therefore, this attribute can be divide into three levels, sale from the farm gate, provision to buyers` place, and nearby market.

*Input supply arrangement (Based on wholesale price).* As in developing countries, smallholders usually face an imperfect input market. They have limited access to minerals, pests, technical assistance, and reliable intensive seeds. These types of input resources are available for private farming and clusters in Uzbekistan. Supplying such input resources might motivate smallholders to participate in contract farming schemes. Under the contract arrangement, the smallholders prefer to provide the input resources for producing tomatoes by buyers.

Our conceptual framework demonstrates the trade-offs smallholders encounter in evaluating different sets of contract design attributes.

**Data and methods.** Conducted a random selection survey in January-March 2021 in six districts (Jambay, Bulungur, Taylak, Urgut, Akdarya, and Payarik) of the Samarkand region for identifying the smallholders` inclination to accept to enter into a contracting scheme for the cultivation and sale of the tomatoes. A total of 197 respondents were random selected for interviews from the re-

gions. The collected survey data was in two categories. In particular, the first part included: general demographic data; general information about the product; contracting status; product marketing information; credit and social activism; access to social infrastructure and services; property; data on unforeseen circumstances; and the impact of the COVID-19 pandemic on tomato production. In the second part, it is experimented with six attributes to motivate respondents production or selling contracts. In the analysis, it is offered three choice options in twenty-eight choice cards to each respondent. As a result, a total of 16548 observations (197 individuals x 28 choices x 3 options for each choice card) were analyzed. The first two choice options among the three were in a nontraditional context. These options were into formal and informal contract groups. However, in the third option, we proposed to smallholders their traditional condition as an alternative when they preferred that.

We used Discrete Choice Experiment (DCE) data which was on the basis random utility model [18], and followed by the user guide on DCE [19]. In this framework, individuals  $n$  assumed to choose between  $J$  alternative jobs, opting for the one associated with the highest utility. Individual  $n$  will choose choice  $i$  over  $j$  if and only if

$$U_{ni} > U_{nj} \quad \forall i \neq j \in$$

there are  $U$  is the utility for a given covenant. Betas gave quantitative information on the strength of preference for each attribute level.

The random utility model is associated with a particular covenant of three components.  $V_n$  is a deterministic component of  $m$  observed contract attributes.  $\varepsilon_{ni}$  is unobserved contract attributes. Thus, utility to individual  $n$  associated with covenant  $i$  can be specified as follows:

$$U_n = V_n + \varepsilon_n = \alpha_1 + \beta_1 x_{1n} + \beta_2 x_{2n} + \dots + \beta_m x_{mn} + \varepsilon_n$$

The probability of a respondents` specified contract term modeled and choosing a given covenant identified by the indirect utility. In the follo-

wing, it is assuming that the linear and additive form of utility.

$$V = \beta_1 price + \beta_2 stype1 + \beta_3 payment1 + \beta_4 payment2 + \beta_5 splace1 + \beta_6 splace2 + \beta_7 provision1 + \beta_8 provision2 + \beta_9 provision3 + \beta_{10} provision4 + \beta_{11} cons + \varepsilon_i$$

$V$  is the utility derived from a given covenant,  $\varepsilon$  refers to the error term, and all other variables are attribute levels from the choice tasks. The probabilistic framework of the DCE specified that an individual  $n$  presented with three types of the covenant. The probability for individual  $n$  chooses covenant  $i$  over the choice tasks  $j$  can be estimated as

$$P_{ni} = Pr(U_{ni} > U_{nj}) \quad \forall i \neq j \in$$

The logit choice probabilities can be deriving by the following conditional logit model:

$$P_i = \exp(V_i) / \sum_{j=1}^N \exp(V_j)$$

While regression analysis gives us the main result, it does not show the marginal effect of attributes on financial value. For identifying these smallholders` willingness to accept contract attributes

(or attributes levels), used the random effect model same as Campbell (2007) and Barrowclough et al. (2019). Abusing the panel nature of the contract farming and smallholders' willingness to accept estimates for the contract attributes are pooled together, with random effects model being:

$$WTO_{na} = \alpha + x_{na}\gamma + \varphi_n + \varepsilon_{na}$$

There are  $WTO$  of producer  $n$  for contract attribute  $a$  is determined by  $\alpha$ , an intercept.  $x_{na}$ ,  $K$  dimensional row vector of explanatory variable;  $\gamma$  a vector of producer and farm-level parameters can be estimated;  $\varphi_n$  is a smallholder specific random effect, and  $\varepsilon_{na}$  is an error term. These estimates were using the procedure proposed by Train (2009).

**Experimental design and choice sets.**

Experimental design and choice sets were becoming from the identified attributes. These attributes and their levels lead to 720 possible combinations, two attributes with two, two with three, one with four, and an attribute with five levels ( $2^2 * 3^2 * 4^1 * 5^1 = 720$ ). We used the statistical software STATA 15 by STATA Corporation LP to develop a D-optimal choice design and analysis.

**Results and discussion.** The survey provided some positive insights into the problems. We used the Conditional logit regression model to estimate smallholders who produced tomatoes in Samarkand province willingness to accept produce or/and trade contract with a buyer. Regression analysis concludes as follows (Table 2). A written agreement, price, sorting, payment before and after harvesting, smallholder provision the product to buyers' place attributes are at 1% level, and buyer provision seed (or plant), minerals, technical assistance, and pests attributes is at 5% level statistically

significant. The written contract improves smallholders' willingness to accept contract terms by 80% level than verbal contracts. Although the importance of the price of tomatoes is high, an increase per thousand sums has little effect on changing the willingness to accept the contract terms. Supply the seed (or plant), minerals, technical assistance, and pests by buyers increases smallholder willingness to accept contracts by 13%. However, input market uncertainty, some types of separated provisions, seed (plant) supply itself, provision seed (or plant) and minerals and provision seed (or plant), minerals, and technical assistance do not motivate smallholders to contract farming schemes.

Accordingly, the regression model drowns absolute critical results for agri-food supply chain actors in Samarkand. As in many studies on the subject, the output market uncertainty is a dominant factor for smallholders in Samarkand to enter the contract system. Interestingly, however, it is found that the impact of the price levels studied for smallholder acceptance of contracts was negligible. In contrast, it is enough found a written agreement that works for smallholders. As we hypothesized, quality uncertainty categories for tomato production are in negative signs, namely sorting the tomato products after the harvesting decreases the willingness-to-accept the contract by 12.6% than without sorting. It means that smallholders do not accept such agreements with sorting the product after harvesting for the buyer. If the smallholders classify the product under the contract, they can increase the price of the tomato accordingly, but in this case, they are at risk of a decrease in the marginal cost.

**Table 2.**  
**Conditional (fixed-effects) logistic regression model estimates of smallholders' general preferences for contracts**

Variables <sup>a</sup>	Coefficient	Standard Error	t-value	p-value	[95% Confidence Interval]	Sig
Written contract (Verbal contract)	.803	.038	21.27	0	.729 .877	***
Price	0	0	15.93	0	0 0	***
Sorting (Without sorting)	-.126	.037	-3.40	.001	-.199 -.054	***
Payment a month before harvesting (Immediately after harvesting)	-.178	.048	-3.69	0	-.273 -.084	***
Payment a month after harvesting (Immediately after harvesting)	-.397	.049	-8.16	0	-.492 -.301	***
Provision to buyers' place (Farmgate)	-.183	.049	-3.74	0	-.28 -.087	***
Nearby market (Farm gate)	.009	.048	0.18	.855	-.085 .102	
Provision only seed (or plant) (No input provision)	.04	.068	0.59	.554	-.093 .173	
Provision seed (or plant) and minerals (No input provision)	.099	.067	1.48	.138	-.032 .231	
Provision seed (or plant), minerals, and technical assistance (No input provision)	.099	.066	1.50	.133	-.03 .228	
Provision seed (or plant), minerals, technical assistance, and pests (No input provision)	.127	.063	2.02	.044	.004 .249	**
Constant	.818	.075	10.88	0	.671 .966	***
Mean dependent variable		0.334	SD dependent variable		0.472	
Pseudo r-squared		0.075	Number of observation		16538.000	
Chi-square		913.723	Probability > chi2		0.000	
Akaike crit. (AIC)		11222.765	Bayesian crit. (BIC)		11315.326	

\*\*\* p<.01, \*\* p<.05, \* p<.1

<sup>a</sup> Variables in the brackets are the base alternatives for pears

Smallholders are reluctant to borrow from customers and sell their products on credit. We assumed that smallholders would be inclined to before payment of tomato product. However, its reverse results happened. Advance payment for the product minimized willingness to accept the contract term by 17.8%. Due to the short shelf-lifetime of tomatoes, our assumption that smallholders have to sell their products faster, even on credit, did not turn out to be correct. But, late payment decreases by 39.7% is understandable. Because customarily, most of the smallholders refuse to accept such terms of the contracts with the buyers. At the same time, they expressed their opposition to taking their products to the buyers` addresses. According to the results, delivering the product to the buyer address by the smallholders is decreases the willingness-to-accept by 18.3%. Of course, this condition can lead to additional marketing and transportation costs for them.

The effect of the price attribute on the change of decision of smallholders is high. In this case, the calculation of the changes in their decision based on price values gave a lot of clarity.

In table 3, based on regression analysis results, it is demonstrated that smallholder willingness to accept estimates for smallholder contract attributes in the Samarkand region. To calculate the willingness to pay estimation price attribute variable is selected as a proxy. According to our data analysis, even if prices fall to 68.2% of the maximum, smallholders want to sign a written contract.

Naturally, smallholders would disagree selling with sorted their products. However, if the price increases by 10.7% per kg, they would be willing to accept sorting the product. Interestingly, smallholders have no interest in payment before harvesting tomato production.

Table 3.

Willingness-to-accept estimates for smallholder contract attribute in Samarkand region (proxy is the price)

Type of attributes	Variables	Coef. ( St.Err.)
Form of contract	Written contract	-2729.8*** (214.1)
Quality specification	Sorting	429.3*** (129.2)
Payment time	A month before harvesting	606.6*** (170.6)
	A month after harvesting	1348.8*** (187.0)
Place of sale	Provision to buyers` place	623.4*** (166.6)
	Nearby market	-29.8 (162.5)
Input supply arrangement (Based on wholesale price)	The provision only seed (or plant)	-136.5 (231.0)
	Provision seed (or plant) and minerals	-338.1 (228.9)
	Provision seed (or plant), minerals, and technical assistance	-336.1 (224.8)
	Provision seed (or plant), minerals, technical assistance and pests	-430.2** (214.4)

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

Conversely, price value increases by 15.2%, then they changed. The payment after a month of harvesting is difficult for smallholders. Therefore, they would be willing to accept the late refund if the price value increases by 33.7%. Provision of the tomato to the buyer palace is costly. So, smallholders are willing to accept the provision of products to the buyers after increases the price value by 15.6%. Besides that, one more estimation is significant to change smallholders` willingness to accept. If the buyer company provides the input resources such as seed (or plant), minerals, technical assistance, and pests, smallholders would agree price value downsize by 10.8%.

**Conclusion.** We analyzed the relative importance of and trade-offs among contract attributes for smallholders` willingness to participate in contract farming schemes. Findings indicate that surveyed smallholders in Samarkand regions had varied attitudes regarding the use of contracts. Smallholders much more preferred the payment date, price, place of sale products supplying input resources by buyer sorting and type of covenant attributes in the contracting agreement. However, they are

more sensitive to output market and quality assurance uncertainties than input resources uncertainties. Since, according to the regression analysis results, the written contract improves smallholders` willingness to accept contracts by 80% level than verbal contracts. So, they desired a written agreement between tomato buyers. Furthermore, price increases and input resources supply by buyer attributes are positive to motivation smallholders to contract farming schemes. Therefore, smallholders agreed to minimize the tomato price by 68.2% for written contract attributes and 10.8% for input provision.

The results pointed out interesting insights smallholders were not inclined to non-guaranteed price and market. They want to produce products on a contract basis with buyers and suppliers or entities to minimize risks and guarantee returns.

The findings of this investigation would be an advanced tool for agri-food supply chain actors and policymakers who will initiate to maximize the smallholders` profit and marketing development strategy in Uzbekistan.

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## ПАХТА ТОЗАЛАШ КОРХОНАЛАРИ ХОДИМЛАРИНИ РИВОЖЛАНТИРИШ СТРАТЕГИЯСИНИ ШАКЛЛАНТИРИШНИ ТАКОМИЛЛАШТИРИШ

**Тоғжибоева Нафисахон Рахмиддин қизи -**

Андижон қишлоқ хўжалиги ва агротехнологиялар  
институтини докторанти

**Аннотация.** Мақолада пахта тозалаш корхонаси ходимларини ривожлантириш стратегиясини шакллантириш механизмларини такомиллаштириш масалалари ўрганилган.

**Калит сўзлар:** пахта тозалаш заводи, ривожлантириш, ходим, стратегия, механизм.

## СОВЕРШЕНСТВОВАНИЕ ФОРМИРОВАНИЯ СТРАТЕГИИ РАЗВИТИЯ ПЕРСОНАЛОВ СОТРУДНИКОВ ХЛОПКООЧИСТИТЕЛЬНЫЙ ПРЕДПРИЯТИЙ

**Таджибаева Нафисахон Рахмиддин қизи -**

Докторант Андижанского института  
сельского хозяйства и агротехнологии

**Аннотация.** В статье рассматриваются вопросы совершенствования механизмов формирования стратегии развития работников хлопкоочистительного завода.

**Ключевые слова:** хлопкоочистительный завод, развитие, сотрудник, стратегия, механизм.