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SOCIO-ECONOMIC DRIVERS AND INSTITUTIONAL CHALLENGES OF TOBACCO CONTRACT FARMING PARTICIPATION IN SVOSVE COMMUNAL AREA, ZIMBABWE

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Abstract: *Tobacco remains Zimbabwe's leading agricultural export crop, increasingly produced under contract farming arrangements. While contract farming offers inputs, technical assistance, and assured markets, concerns persist that benefits are skewed towards merchants rather than smallholder farmers. This study investigates the determinants of smallholder participation in tobacco contract farming in Ward 22, Svosve Communal Area, Marondera District, Mashonaland East Province. Guided by the New Institutional Economics (NIE) theory, which emphasizes the role of institutions in reducing transaction costs under market imperfections, a mixed methods approach was employed. Quantitative data were collected from 246 communal tobacco farmers using structured questionnaires, while qualitative insights were gathered from 10 key informant interviews with agricultural business advisory officers(ABAO), tobacco merchants, and farmer leaders. Multistage sampling was used to select five villages: Mere 1, Mere 2, Mere 3, Neshamba, and Bonda. Data were analyzed using descriptive statistics and multiple linear regression in SPSS v25. Higher The regression model was statistically significant ($F = 24.73$, $p < 0.001$) with a strong explanatory power ($R^2 = 0.68$; Adjusted $R^2 = 0.65$). Results showed that landholding size ($\beta = 0.62$) and years in contract farming ($\beta = 0.45$) were the strongest positive predictors of participation, followed by irrigation access ($\beta = 0.38$), household income ($\beta = 0.31$), and education level ($\beta = 0.29$). In contrast, multiple income sources ($\beta = -0.27$) and years in general agriculture ($\beta = -0.27$) negatively influenced participation, indicating that diversified and highly experienced farmers were less inclined to join contracts. The discussion highlighted that resource endowments and institutional support drive participation, while lack of collateral and financial literacy hinder broader inclusion. The study concludes that contract farming remains a viable pathway for smallholder integration into value chains but requires reforms to ensure equitable benefits. Policy implications emphasize collateral support, farmer training, and resource provision particularly land development and irrigation infrastructure to enhance participation and productivity among smallholder farmers.*

Keywords: *Tobacco, Contract Farming, Smallholder Farmers, Zimbabwe, New Institutional Economics, Participation*
(JEL code: Q13)

INTRODUCTION

Contract farming has emerged as a dominant financing model in Zimbabwe's tobacco sector, particularly after the Fast Track Land Reform Programme (FTLRP) of 2000. The FTLRP redistributed large-scale commercial farms to smallholder and communal farmers, many of whom lacked collateral, capital, and access to formal credit. Tobacco, being Zimbabwe's leading agricultural export crop, quickly became central to these new farming arrangements. By 2025, tobacco accounted for more than 60% of agricultural exports and contributed significantly to national GDP, making it a cornerstone of Zimbabwe's agro-based economy (TIMB, 2025; Pangapanga-Phiri, Mungatana, & Mhondoro, 2024).

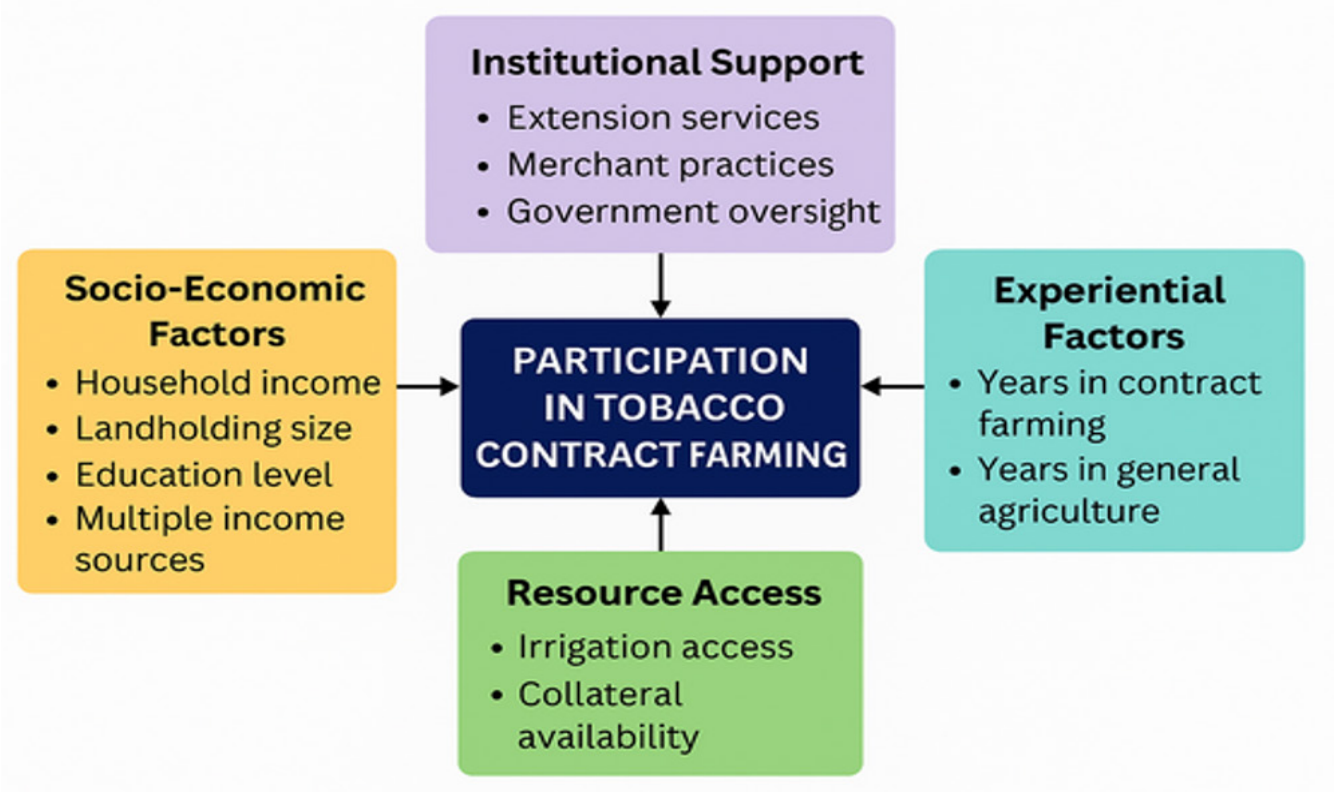
Smallholder farmers, however, face structural challenges in accessing inputs, credit, and reliable markets. Without collateral such as title deeds, they are excluded from formal banking systems. Contract farming emerged as a surrogate institution, where merchants provide inputs (seeds, fertilizers, chemicals), technical assistance, and guaranteed markets

in exchange for farmers' commitment to deliver their crop. While this arrangement has expanded production and stabilized supply chains, debates persist regarding fairness. Evidence suggests that merchants often capture disproportionate benefits through pricing mechanisms, grading systems, and debt recovery practices, leaving farmers vulnerable to exploitation and income insecurity (Mango, Setoboli, Tshuma, & Sibanda, 2025; Gatawa, 2025).

The New Institutional Economics (NIE) theory provides the conceptual lens for this study. NIE emphasizes the role of institutions in reducing transaction costs and coordinating production under imperfect markets. In Zimbabwe, contract farming functions as such an institution, bridging gaps in credit and input supply. However, the institutional arrangements also determine power relations between farmers and merchants, shaping participation and outcomes. Understanding these dynamics is critical for assessing whether contract farming empowers smallholders or entrenches dependency (Mhondoro, 2024; Scoones, 2025).

The problem statement is that, despite the potential economic benefits of contract farming, smallholder farmers in Svosve face challenges such as capital constraints, lack of bargaining power, and exploitative contractual terms. Participation is rising, yet many farmers remain insecure and indebted. There is limited empirical evidence on the socio-economic and institutional factors that determine participation in tobacco contract farming in Zimbabwe, particularly at the communal level. This study therefore seeks to fill that gap by examining the determinants of smallholder farmers' participation in tobacco contract farming in Svosve Communal Area.

Figure 1. Conceptual framework: Socio economic drivers and institutional challenges of tobacco contract farming participation



Source: Own evaluation

The conceptual framework in fig 1 illustrates how smallholder farmers' participation in tobacco contract farming is influenced by four interconnected categories: socio-economic factors, resource access, experiential factors, and institutional support. Each category contributes distinct drivers such as income, landholding, education, irrigation, farming experience, and access to extension services that shape farmers' capacity, motivation, and eligibility to engage in contract arrangements. Arrows from each category point toward the central outcome, showing that participation is not determined by a single factor but emerges from the combined influence of personal resources, institutional structures, and prior experience. This directional flow reflects the New Institutional Economics theory, emphasizing how institutions and resource endowments reduce transaction costs and coordinate production under market imperfections.

MATERIALS AND METHODS

The study was conducted in Svosve Communal Area, located in Ward 22 of Marondera District, Mashonaland East Province, Zimbabwe. Marondera District comprises 23 wards,

and Ward 22 was purposively selected because of its favourable climatic conditions for tobacco production. The area lies within Natural Region II, which is characterized by relatively high agricultural potential, receiving an average annual rainfall of between 750 mm and 1,000 mm and mean temperatures ranging from 15°C to 28°C. These conditions make the area suitable for intensive crop production, particularly tobacco, maize, and horticultural crops. The soils are predominantly sandy loams, and farming systems are mixed, combining crop cultivation and livestock rearing. Tobacco is the dominant cash crop, grown alongside maize, groundnuts, and small grains, while cattle and goats provide draught power, manure, and household food security. Farmers in this area are beneficiaries of the Fast Track Land Reform Programme (FTLRP) and operate under communal tenure, which limits their access to formal credit since they lack title deeds.

A multistage sampling procedure was employed to select respondents. At the first stage, Marondera District was selected due to its prominence in tobacco production. From the 23 wards, Ward 22 was purposively selected based on its favourable climate and high concentration of tobacco growers. Within Ward 22, Svosve Communal Area was identified as the study site. At the next stage, five villages Mere 1, Mere 2, Mere 3, Neshamba, and Bonda were purposively selected because they are actively engaged in tobacco production and exhibit variation in resource endowments and levels of contract farming participation. Following village selection, farming households were randomly sampled from within these villages to ensure representativeness. From a population of 3,500 communal tobacco farmers, a sample of 246 farmers was determined using the Krejcie and Morgan (1970) sample size determination formula. In addition, 10 key informants comprising extension officers, tobacco merchants, and farmer leaders were purposively selected to provide in depth qualitative insights. Quantitative data were collected using structured questionnaires administered to farmers, with responses captured digitally through KoboCollect and later exported into SPSS version 25 for analysis. Key informant interviews were conducted to complement the quantitative findings with institutional and experiential perspectives.

Data analysis was conducted at two levels. Descriptive statistics were used to summarize socio-economic characteristics of contracted and non-contracted farmers, focusing on variables such as years of education, number of income sources, years in agriculture, arable land size, irrigation access, and gender distribution. These statistics provided comparisons between contracted and non-contracted farmers. To identify determinants of participation in tobacco contract farming, a multiple linear regression model was applied, with hectares under contract farming as the dependent variable representing the degree of participation. Independent variables included average monthly household income, years in agriculture, years in contract farming, arable land size, irrigation access, education level, and gender.

The regression model is expressed as:

$$Yi=\beta0+\beta1X1i+\beta2X2i+\beta3X3i+\beta4X4i+\beta5X5i+\beta6X6i+\beta7X7i+\epsilon i \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1$$

Where:

Yi = Hectares under tobacco contract farming (dependent variable)

$\beta0$ = Intercept

X^1i = Average monthly household income

X^2i = Years in agriculture

X^3i = Years in contract farming

X^4i = Arable land size (ha)

X^5i = Irrigation access (dummy variable: 1 = access, 0 = no access)

X^6i = Education level (years of schooling)

X^7i = Gender (dummy variable: 1 = male, 0 = female)

ϵi = Error term

RESULTS AND DISCUSSION

Quantitative Results

Descriptive Findings

Table 1 shows the descriptive analysis. The statistics revealed clear differences between contracted and non-contracted farmers. Contracted farmers had higher education levels (mean 10.2 years), larger landholdings (mean 2.1 ha), and greater access to irrigation (65%), which made them more attractive to merchants. In contrast, non-contracted farmers had lower education levels (mean 7.8 years), smaller landholdings (mean 1.2 ha), and limited irrigation access (30%). Non-contracted farmers also tended to have more diversified income sources (mean 2.4 compared to 1.3) and longer farming experience (mean 12.1 years compared to 8.5 years), suggesting that they relied on multiple livelihood strategies rather than committing to contracts. These findings highlight the role of resource endowments and education in shaping participation.

Table 1. Socio economic characteristics of contracted vs non contracted farmers (n = 246)

Variable	Contracted Farmers (Mean/%)	Non-Contracted Farmers (Mean/%)
Years of Education	10.2 years	7.8 years
Number of Income Sources	1.3	2.4
Years in Agriculture	8.5 years	12.1 years
Arable Land Size	2.1 ha	1.2 ha
Irrigation Access	65%	30%
Gender Distribution (M/F)	58% / 42%	55% / 45%
Contract Participation	100%	0%

Source: Own evaluation

Regression Analysis

Regression results in table 2 confirmed the descriptive trends. Positive predictors of participation included household income (β = 0.31), landholding size (β = 0.62), irrigation access (β = 0.38), years in contract farming (β = 0.45), and education level (β = 0.29). These variables significantly increased the likelihood of farmers allocating more hectares to contract farming. Conversely, multiple income sources (β = -0.27) and longer years in general agriculture (β = -0.27) were negative predictors, indicating that farmers with diversified livelihoods or long experience outside contracts were less likely to participate. This suggests that contract farming appeals more to resource-endowed households seeking stable markets, while experienced farmers with alternative income streams may avoid contracts due to perceived risks or exploitative terms.

These findings confirm that resource endowments and institutional support drive participation. Farmers with irrigation infrastructure and larger plots are attractive to merchants, while those with diversified livelihoods perceive contracts as restrictive. The imbalance of bargaining power between merchants and farmers remains a challenge, echoing literature that highlights exploitative tendencies in contract arrangements.

Table 2. Determinants of participation in tobacco contract farming (Multiple Linear Regression)

Predictor Variable	Coefficient (β)	Effect on Participation
Household Income	0.31	+
Landholding Size	0.62	+
Irrigation Access	0.38	+
Years in Contract Farming	0.45	+
Education Level	0.29	+
Multiple Income Sources	-0.27	-
Years in General Agriculture	-0.27	-

Source: Own evaluation

Model Fit Statistics

• $R^2 = 0.68 \rightarrow$ the model explains 68% of the variation in participation.

• Adjusted $R^2 = 0.65 \rightarrow$ after adjusting for the number of predictors, the model still explains 65% of the variation.

• F statistic = 24.73 → the overall regression model is statistically significant.

• P value < 0.001 → strong evidence that the predictors jointly influence participation.

Interpretation

• The model shows that landholding size (β = 0.62) and years in contract farming (β = 0.45) are the strongest positive drivers of participation.

• Multiple income sources (β = -0.27) and years in general agriculture (β = -0.27) negatively affect participation, suggesting that diversified or highly experienced farmers prefer autonomy.

• The high R^2 and significant F statistic confirm that the model is robust and reliable for explaining participation patterns among smallholder farmers.

Qualitative Results

Key informant interviews revealed contrasting perspectives among stakeholders in tobacco contract farming. Representatives from Northern Tobacco Company (1), Shasha Company (1), ZLT Company (1), and Munyasha (1) emphasized that contract farming has improved farmer access to inputs and stabilized supply chains, arguing that merchants provide critical support in the absence of formal credit. However, Government Agricultural Business Advisory Officers (ABAO) (4) noted that many smallholders remain disadvantaged, pointing

out that contracts often favor resource endowed farmers with irrigation and larger landholdings. Farmer leaders (2) strongly criticized the system, asserting that "the deductions of money after sale on the sales sheets are not clear and untraceable", leaving farmers uncertain about their actual earnings. They further argued that grading practices are biased toward merchants, reducing farmer bargaining power. These assertions highlight both the supportive role of merchants in sustaining production and the persistent concerns about transparency and fairness raised by farmers and government officers.

Discussion of Results

The results of this study show that participation in tobacco contract farming in Svosve Communal Area is strongly influenced by socio economic and institutional factors.

Education and participation: Farmers with higher education levels were more likely to participate in contracts. This agrees with Mango et al. (2025), who found that education improves farmers' ability to interpret contract terms and comply with technical requirements. However, Scoones (2025) cautions that education alone does not shield farmers from exploitative grading systems, suggesting that institutional transparency is equally important.

Landholding size and irrigation access: Regression results confirmed that larger landholdings and irrigation access significantly increased participation. Merchants such as Northern Tobacco, Shasha, ZLT, and Munyasha supported this, noting that resource endowed farmers are more reliable suppliers. Yet, Government Agricultural Business Advisory Officers (ABAO) argued that this practice excludes poorer households, reinforcing inequality. This supports Gatawa (2025), who observed that contract farming tends to favor better resourced farmers.

Household income and contract experience: Higher household income and longer years in contract farming were positively associated with participation, indicating that financially better off households are more capable of meeting contractual requirements, absorbing production risks, and repaying input loans. This finding is consistent with New Institutional Economics theory (North, 1990; Williamson, 2000), which emphasizes that actors with greater financial capacity are better positioned to engage in institutional arrangements under conditions of risk and uncertainty. However, this relationship is potentially bidirectional. As noted by Mango et al. (2025) and Mhondoro (2024), higher income may enable entry into contract farming, while participation itself may also lead to income gains through improved access to inputs, markets, and technical support. Given the cross sectional nature of this study, the analysis captures associations rather than causal effects, and the direction of influence cannot be definitively determined. Qualitative evidence further complicates this relationship, as farmer leaders reported that income gains are frequently undermined by opaque and "untraceable" deductions on sales sheets, echoing concerns raised by Scoones (2025) regarding power asymmetries and transparency deficits. Addressing these trust concerns requires institutional reforms such as standardized and itemized sales statements, independent auditing of deductions, and strengthened regulatory oversight by agencies such as the Tobacco Industry and Marketing Board to enhance transparency and safeguard farmer incomes.

Multiple income sources and general farming experience : Farmers with diversified income sources or longer farming experience were less likely to participate. This agrees with Nyakuchena (2025), who found that diversified farmers avoid restrictive contracts to maintain autonomy. Merchants countered that diversification signals unreliability, while farmer leaders argued that experienced farmers distrust merchants due to past exploitative practices.

Transparency and trust: A recurring theme from interviews was lack of transparency. ABAO officers and farmer leaders criticized grading and deductions, while merchants insisted these were necessary to recover input costs. This disagreement highlights a trust deficit that undermines farmer confidence in contracts.

The study found that participation in tobacco contract farming in Svosve Communal Area is driven by education, landholding size, irrigation access, household income, and contract experience, while multiple income sources and longer general farming experience reduce participation. Key informants highlighted both benefits such as access to inputs and stable markets and challenges, including unclear deductions and biased grading. Overall, contract farming supports resource rich farmers but risks excluding poorer households. Greater transparency, equitable support, and improved infrastructure are essential for ensuring that contract farming contributes to rural development and poverty reduction in Zimbabwe.

Long term debt risks for poorer households: Although contract farming facilitates access to inputs and markets, it also exposes poorer households to long term debt risks, particularly where asset bases and income buffers are limited. Studies by Scoones (2025) and Gatawa (2025) show that in contexts of climatic shocks, price volatility, or pest and disease outbreaks, smallholder farmers remain liable for input loans even when yields are low or fail altogether. Evidence from this study further indicates that these risks are exacerbated by non transparent and "untraceable" input deductions, a concern similarly highlighted by Mango et al. (2025) and Mhondoro (2024). Repeated exposure to such conditions may entrench cycles of indebtedness among the poorest households, reinforcing dependency on merchants and restricting livelihood diversification. These findings highlight the need for safeguards such as transparent and itemized deduction systems, clearer contractual terms, risk sharing mechanisms including crop insurance, and stronger regulatory oversight by institutions such as the Tobacco Industry and Marketing Board, in line with recommendations by FAO (2025) and World Bank (2026), to prevent chronic indebtedness and promote equitable contract farming outcomes.

CONCLUSION

Overall, the findings suggest that contract farming benefits resource rich households but risks excluding poorer farmers. Supportive arguments from extension officers emphasized the role of contracts in providing inputs and technical support,

while farmer leaders stressed the need for fairness and transparency. Policy interventions should therefore focus on collateral support, irrigation development, farmer training, and transparent contract enforcement to ensure equitable participation and sustainable livelihoods.

While this research has provided valuable insights into the determinants of smallholder participation in tobacco contract farming in Svosve Communal Area, several areas warrant further investigation. Future studies could:

• Expand geographic scope to include other districts and provinces, allowing for comparative analysis across different agro ecological regions.

• Examine long term welfare impacts of contract farming, including household income stability, debt accumulation, and food security.

• Assess gender dynamics, focusing on how men and women experience contract farming differently in terms of access to resources, decision making, and benefits.

• Investigate institutional transparency, particularly grading systems and deductions, to evaluate fairness and accountability in merchant practices.

• Explore alternative financing models, such as cooperative schemes or government backed credit, to compare their effectiveness with contract farming.

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