

Contribution of Smallholder Tobacco Contract Farming to Economic and Human Development of Rural Communities in Zimbabwe: A Case of Igava Community, Marondera District

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How to cite this paper: Shiringo, L., Chundu, M., & Sithole, P. M. (2022). Contribution of Smallholder Tobacco Contract Farming to Economic and Human Development of Rural Communities in Zimbabwe: A Case of Igava Community, Marondera District. *Open Journal of Social Sciences*, 10, 36-57. <https://doi.org/10.4236/jss.2022.109004>

Received: July 9, 2022

Accepted: August 6, 2022

Published: August 9, 2022

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Open Access

Abstract

The study focused on the contribution of tobacco contract farming on economic and human development in Zimbabwean communities with a focus on smallholder farmers in Igava community in Marondera District. A mixed research methods approach was adopted where both quantitative and qualitative data were collected through a questionnaire and a detailed interview guide respectively. A sample of 40 participants who comprised 22 questionnaire respondents and 18 interview participants participated in the study. The study results revealed that tobacco contract farming contributes to both economic and human development of the Igava community. Proportionally, it emerged that the economic contribution dimension of tobacco contract farming is relatively higher than the human development because of its direct and tangible benefits in the community. Based on the findings, it was concluded that smallholder tobacco contract farming is quite beneficial in the promotion of economic and human development towards quality of life in the Igava community. It is therefore recommendation that the government of Zimbabwe seeks to strengthen the tobacco contract farming model for sustainable development.

Keywords

Government Subsidy, Contractor Farming, Community Development

1. Introduction and Background

1.1. Introduction

Contract farming is generally understood as an arrangement between farmers and marketing firms for the production and supply of agricultural products. The arrangement is normally under forward agreements which are often based on a predetermined price (Eaton & Shepherd, 2001). Increasingly, it has been noted that contract farming plays an important role in various developing nations towards community socio-economic and human development. It has been noted that contract farming is not a new phenomenon but a farming practice which has been around for centuries as pointed out by Phong Tuan (2012), Kassim (2015) and Kaur et al. (2015). The practice developed into a widespread development practice in ancient Greece where a proportion of crops were used in the settlement of debts and rents whereas in China, various forms of sharecropping were used during the first century (Jacobson, 2010). Early in the 19th century, European principalities established formal arrangements between two parties namely farmers and contracting firms. In Africa, one of the successful projects in the early 19th century was implemented in Sudan, where cotton farmers were contracted. The Sudan model has been widely used because of its applicability to smallholder contract arrangements even in the modern times (Eaton & Shepherd, 2001). Contract farming schemes played a vital role in the agricultural sector of the United States of America and Western Europe since the 1930s (Jacobson, 2010).

The practice of contract farming then spread out to the developing countries around the early 1970s (Little, 1999; Maiwa et al., 2016). In Africa, contract farming was used as an instrument for the transformation of rural socio-economic sectors under the era of Structural Adjustment Programs (SAPs). In Zimbabwe, it was one of the key components of the International Monetary Fund and World Bank driven Structural Adjustment Program in the early 1990s implemented to support export diversification. During this period, the demand for contract agriculture increased because it was discovered that it had capacity to complement market-led growth in the country (Little, 1999). However, there is no consensus regarding the effect of contract farming on rural development in Africa. While some point out that contract farming increases poor small-scale farmers' incomes to escape poverty, others emphasize on the dependency syndrome as farmers rely on contracting firms for survival. This can be exemplified by the study conducted by Chingosho et al. (2020) whose results depicted that contract farming is largely to make farmers more indebted by 15% - 20% points compared to independent farmers. They further argued that an increase of one-acre in the size of the farm will likely heighten the likelihood of the farmer going into debt by 1.6% to 1.8% points.

In the Zimbabwean context, tobacco contract farming is an agreement where tobacco buyers avail the inputs required for the production of the crop and then assure to buy all the tobacco under contract at the same prices or higher than the

ones prevalent on the auction floors (Dube & Mugwagwa, 2017). It should be noted that in Zimbabwe, the state has been promoting contract farming and this has led to a highly successful growth of smallholder farming since the 1980s (Scoones et al., 2018). The contract farming development and its economic contribution is in itself a manifestation of development at macro and micro levels in a country. This study focuses on the micro level contract farming, specifically within the context of rural community development. Just like urban development, rural development encompasses economic, human and social efforts that ensure sustainable and transformative quality of people's lives and environment (Kassim, 2015). Johnston (2016) asserts that a vigorous, vibrant and sustainable agricultural sector is a crucial base for rural development, bringing about strong linkages to various economic sectors.

1.2. Background to the Study

According to Chingosho et al. (2020) Zimbabwe is the largest tobacco producer in Africa and number six in the world which has resulted in tobacco accounting for approximately 10% of the country's GDP in 2018 (p. 1). Scoones et al. (2018) observe that because of the Fast Track Land Reform Program (FTLRP) implemented from the year 2000 in Zimbabwe, over 10 million hectares of land was transferred to more than 146,000 smallholder-farm families (p. 24). Beneficiaries of the FTLRP were then separated according to the land size into what came to be popularly known as the A1, and A2 farming models (Chigunhah et al., 2018). The A1 farmers who comprised mainly of resettled former communal farmers and former commercial farm workers were given about 4.1 million hectares of land, whereas the A2 model consisted of large commercial farming schemes, individual sizes of which averaged about 318 hectares from the 2.7 million hectares of land (Chigunhah et al., 2018). This is supported by TIMB (2019) which states that an approximate of 29% of these farmers grow tobacco (p. 22). At the same time, TIMB (2018) add that in 2018, approximately 80% of smallholder tobacco farmers in Zimbabwe had contracts with private companies, (p. 8). That is, there has been a 42% increase in the number of smallholder farmers in the period between 2016 and 2018, resulting in a 29% increase in tobacco leaf production over the same period (Chingosho et al., 2020: p. 6).

The deterioration in agricultural production is not surprising, given the fact that most productive farms were given out to recipients who lacked a combination of production resources, interest, experience and knowhow in farming, not forgetting inadequate credit facilities as noted by Scoones et al. (2018). As a result, the emergent disparities in land ownership made it difficult for the farmers to secure credit from financiers as they lacked proper collateral security to secure their borrowing. This brought about a huge financing gap that is currently being covered by the private sector through what is now known as contract farming (FAO, 2017; Atkinson, 2020).

Prior to the introduction of contract farming in the Zimbabwean tobacco sec-

tor in 2004, selling was done through auction floors (Khumalo, 2013). Under this arrangement, tobacco farmers would take their produce to an auction floor of their choice for marketing. The way the auction system works is that the tobacco growers are solely responsible for securing all the inputs and delivery of the tobacco to an auction floor where the highest bidders secure the produce (Khumalo, 2013). Consequently, the production and marketing risk would lie entirely with the producer (Khumalo, 2013). Now, with contract farming, smallholder farmers can enjoy several benefits that come with contract-based farming. The benefits include access to more dependable markets, access to new promising markets, access to affordable credit facilities and inputs on more favourable terms, access to new and efficient technologies in farming and the reduction of production and marketing risks (Dube & Mugwagwa, 2017). Edleman (2017) asserts that contract farming, is seen as one potential tool in the rural development efforts. This resonates with the study carried out by Jacobson (2010) where contract farming was found to have a positive effect to rural livelihoods and development.

In fact, tobacco contract farming has been argued to have contributed to the economy of Zimbabwe owing to the notions by the tobacco industry and the government that the growing of the crop is lucrative and has the potential to greatly improve the welfare of the farmers (Hu & Lee, 2015). In as much as tobacco is marketed as a lucrative crop that can enhance the economic welfare of farmers, there is significant data on the losses that have been made by most smallholder farmers over the years. Other effects of tobacco contract farming that have been noted encompass environmental and the health of farm workers (WHO, 2015: p. 45). The harm to the environment encompasses soil nutrient depletion and deforestation when the farmers cut down trees for wood fuel to cure tobacco. In addition, there the health dangers that include occupational health risks, including green tobacco sickness and exposure to pesticides (Chingosho et al., 2020). Another criticism that has been levelled against tobacco contract farming is that it promotes use of child labour as the enterprise is associated with intensive family involvement (Chingosho et al., 2020). Against this background, the study sought to assess how the contract farming has contributed to development in the Igava community of Marondera District with a special focus on the economic and human development dimensions. More specifically it sought to:

- 1) Examine contribution of smallholder tobacco contract farming to economic development in Igava community.
- 2) Determine contribution of smallholder tobacco contract farming to human development in Igava community

2. Literature Review

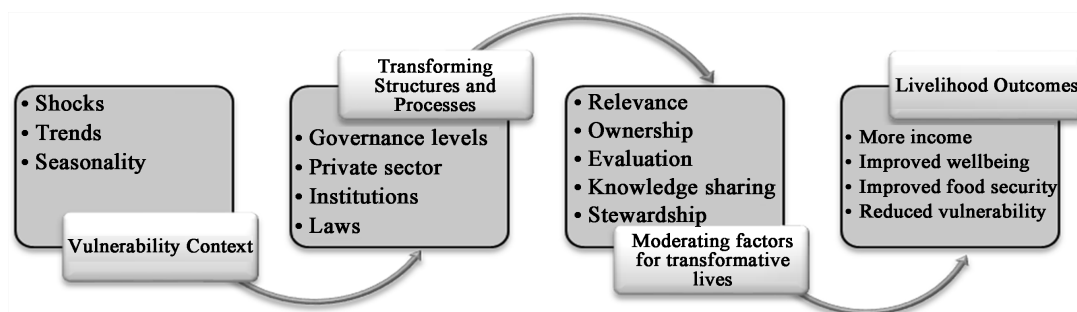
2.1. Theoretical Underpinning: Transaction Cost Economics

Contract farming is anchored on the theoretical foundation of the Transaction Cost Economics, a branch of New Institutional Economics. The theory asserts

that every time economic agents transact, transactions costs are inevitable. These costs relate to finding a market or customer, negotiating, and signing a contract, controlling contract compliance, switching costs in case of premature termination of the contract, and all other cost opportunities (Bijman, 2008). In this theory, the main neoclassical economics assumptions, like perfect information, a complete set of markets (credit, labour, input, and output markets), zero transaction costs, full rationality, and homogeneous products and size are relaxed. However, the assumption of self-seeking behaviour attempting to maximize an objective function subject to constraints still holds (Kherallah & Kirsten, 2002). The underlying argument is that the problems that economic actors face because of imperfect information in market transactions and institutions play a significant role in the organisation and operation of those transactions and institutions (Kirsten, Karaan, & Dorward, 2009). Human behaviour, which is characterized by bounded rationality and opportunism, determine transactions costs (Bijman, 2008). Contract farming is a way of seeking to minimize these transactions costs. Conceptual and measurement challenges related to transaction costs are the main obstacle to generating empirical evidence on the strengths and weaknesses of contract farming (Kirsten, Karaan, & Dorward, 2009).

2.2. Conceptual Framework; Sustainable Rural Livelihoods Framework

The study was guided by the DFID's Sustainable Livelihoods Framework (SLF) which is amongst the most extensively used livelihood frameworks in development practice (Scoones, 2018). The framework is anchored on the notion that livelihoods sustainability is measured by ability to overcome present and future shocks. At the same time, the SLF propounds that communities should maintain or improve their capabilities without affecting their resource base (DFID, 2000). However, the framework ideally attempts to simplify reality to give a clear analytical model that assists in a systematic way to limit risk and enhance livelihood opportunities (Zimmerer et al., 2015). Phong Tuan (2012) is of the view that the SLF is an all-encompassing approach that attempts to provide a way of appreciating the fundamental causes and magnitude of deprivation without reducing the attention onto just a few factors, for instance economic concerns and food security. Phong Tuan (2012) further states that the concept of 'sustainable livelihoods' is an appeal to monitor and evaluate the complex environment to achieve transformative and sustainable livelihoods in the communities. It should be noted that the authors of this paper have added the term 'transformative' to the original SLF. This is to denote that the livelihoods that are expected to be sustainable should be life-improving in character. Thus, sustainable livelihood development can be considered as a way of cognitive and evaluative reasoning of how rural development can be achieved. Figure 1 below gives the schematic framework of the now Transformative Sustainable Livelihoods Framework (TSLF) adapted from the DFID (2000: p. 256).



Adapted from: DFID (2000: p. 256).

Figure 1. Transformative sustainable livelihoods approach.

As can be seen in the **Figure 1** above, sustainable livelihoods approach is essentially a framework that compares the shocks that the rural populace faces in their efforts to attain transformative and sustainable development. The first box on the left side of the SLF shows the shocks that include seasonal fluctuations and trends showing how vulnerable rural people are. The middle box shows various stakeholder policies and structures that can be transformed to make contract farming more effective. The last box shows the results expected after all the policies have been successfully combined. In the vulnerability context, the smallholder farmer is assumed to have several livelihood options of which farming is one (Scoones et al., 2018). The farmer is vulnerable to internal and external shocks threatening productivity hence the need to consider other livelihood options. The SLF examines the synergies and associations of assets in a policy environment, allowing the researcher to assess livelihood changes in any geospatial context (Scoones et al., 2018).

The moderating factors for transformative livelihoods are an addition to the original DFID Livelihoods Approach. The moderating factors we have considered are “relevance”, “ownership”, “evaluation”, “knowledge sharing” and “stewardship”. Our argument is that if livelihoods lack relevance to and ownership by the people on the livelihood initiative, it becomes highly unlikely to achieve the intended transformative lives in the community (Balkyte & Peleckis, 2010). Furthermore, if livelihoods are not properly evaluated and the knowledge is not shared and not managed well, attainment of transformative lives is greatly compromised. This is because life which is not embedded in grounded knowledge is temporary and not sustainable (Clark et al., 2016; Cummings et al., 2017). Also, livelihoods discourse without the people possessing a stewardship mindset is surely void of multiplier effect and sustainability beyond the current generation. Scholarship on stewardship has demonstrated that it (stewardship) is lifeblood of intergenerational responsibility with its ethic value of planning and management of resources (Madison et al., 2016; Mills & Keast, 2009). Essentially, the additive effect of these factors helps to promote community members’ commitment to their own development while informing planning for community development to pay particular attention to these factors. Put together, the moderating factors for transformative livelihoods complement the original compo-

nents of vulnerability context, transforming structures and process and livelihood outcomes to bring a new concept, Transformative Sustainable Livelihoods Approach.

The mediating processes involve transforming the structures such as rules, regulations, and institutions to achieve livelihood outcomes and enhance livelihood assets. For instance, the Zimbabwean Environmental Management Agency (EMA) imposes a constraint on the farmer by monitoring those who illegally cut down trees for curing tobacco. The illegal cutting down of trees for any use is a criminal offence which warrants a penalty of up to US\$ 300 per tree (EMA, 2012). The emergence and growth of contract farming for small-scale farmers is a response to market failures to allocate productive resources to all sectors of the economy (Scoones et al., 2018). Most smallholder farmers cannot afford the collateral security that is required to obtain working capital from financial markets given the absence of title deeds in the newly resettled areas. Contract farming thus becomes a critical intervention in addressing this inherent market failure. According to the DFID (2005), several indicators can be used to assess rural livelihoods, and these are shown in **Table 1** below.

The indicators depicted in **Table 1** below are deemed relevant to this study based on their ability to reflect the economic and human development of the smallholder farmers within the Igava community.

2.3. Empirical Literature Review

Baumann (2000) postulates that three types of contract farming exist, namely market specification, resource-provision, and production management contracts.

Table 1. Indicators of rural livelihoods.

Indicator	Explanation
Income generation and infrastructural development	Rural livelihoods are said to be better if the residents have stable means of getting income and if infrastructure allows them to do so without facing challenges
Sending children to expensive and prestigious schools and ultimately to universities	In a human perspective, the rural population must be able to send their children to schools of their choice and even to universities without facing challenges in paying the fees
Improved housing structures	The housing patterns and structures must also be advanced, though they may not equal those in urban areas. This also indicates better rural livelihoods.
Ownership of farm assets	In addition to social and human indicators, there are also economic indicators of rural livelihoods such as asset ownership. Ownership of perfectly functioning farm assets indicates better livelihoods.
Increase in asset ownership	Assets must not be always deteriorating but increasing.
Creation of employment	In addition, employment must also be created even in the rural areas to indicate livelihoods. Employment on farms and related sectors.
Improved household assets	Household assets must also be properly functional and increasing.
Household food security	Moreover, food security also indicates better livelihoods. Families must have enough food to sustain them throughout the season.

Market specifying contracts guarantee a marketing plan for farmers provided the farmer meets required standards. Intervention from the contractor's side is usually limited to grading of the produce at the marketing stage (Baumann, 2000). On the other hand, resource-based contracts provide the necessary credit facilities in form of inputs working capital (Scoones et al., 2018). Advanced credit is recouped when the farmers finally sell their produce. Under this type of contract, contracting firms offer extension services to farmers which facilitate transfer of technology. Lastly, production and management contracts do combine the former and the latter. In Zimbabwe, the Tobacco Industry and Marketing Board (TIMB) controls tobacco marketing, which provides an already equipped market through the auction floor system. Therefore, Zimbabwe is adopting a mixture of market specification and resource-based contracts since at the same time, contracting firms also provide inputs to the farmers.

In the context of Southern Africa, contract farming has been existent for several years and is now receiving increasing attention as governments strive to commercialize smallholder agriculture, improve the incomes and livelihoods of smallholder farmers, diversify the agricultural production base, increase export earnings and create local employment (Woodend, 2003: p. 11). The phenomenon of contract farming in Africa goes back to the years of the Structural Adjustment Programmes (SAPs) in the 1980's when its implementation was part of the global strategy aimed at supporting small-scale farmers and generating foreign exchange among the new independent nations in Africa. In the framework of the SAPs, multilateral agencies such as the World Bank (WB) and the International Monetary fund (IMF), offered measures to privatize farming which consequentially led to a decrease in government support to smallholder farmers and the advancement of private ventures in the agricultural sector. The private ventures in agriculture were seen as a conduit for the development of agriculture and the suppression of poverty. With government support, the growth of private capital in many other crops produced in the 1980s and 1990s impacted greatly on export-oriented production, at the same time having differential effects on cereal crop farming (Moyo, 2014).

A recent study by Mazwi, Chambati and Mudimu (2020) which evaluated tobacco contract farming contribution with regards income returns, food consumption patterns, farmer indebtedness and the acquisition of asset, found that contract farmers will likely benefit economically given average net incomes of US\$7065 per hectare compared to US\$3202 for non-contract farmers (p. 6). However, the contract farmers have a higher average input costs amounting to US\$1317 compared to non-contract farmers' input costs of US\$1021. Despite this scenario, the tobacco contract smallholder farmers will still be better off as they retain superior incomes from tobacco farming given the high gross margins they enjoy (Mazwi et al., 2020: p. 6). Thus, even though there are some challenges brought about by tobacco contract farming, contract farmers have a significant degree of economic benefit given higher average net incomes as depicted

in the study by Mazwi and others. Their study was conducted in two districts (Zvimba and Goromonzi). The current study focuses on the contribution of tobacco contract farming among smallholder farmers to the economic and human development of farmers in Igava community.

Rural development encompasses efforts that are economic and social in nature aimed at encouraging growth in communities outside urban areas. The efforts are aimed at improving the quality of life for rural residents (Kassim, 2015). Johnston (2016) asserts that a vigorous and vibrant agricultural sector is a very crucial base of rural development, bringing about strong linkages to various economic sectors. Kuhumab (2018) pointed out the three dimensions of rural development that can be used as indicators in any economy. These dimensions are economic, social and human capabilities, following Sen (2004)'s capabilities approach. Sen (2004) points out that development is attained when people possess larger freedoms or capabilities. These functional freedoms are seen in forms of individual capabilities to do things that people have reasons to value. Kuhumab (2018) argues that an improvement or increase in any of those capabilities entails a movement towards rural development. Thus, this research will focus on the three mentioned dimensions to assess the contribution of tobacco contract farming to rural development.

Kuhumab (2018) points out the two dimensions of rural development that can be used as indicators in any economy. These dimensions are economic and human capabilities. These two indicators were developed as a built up from Sen (2004)'s capabilities approach. Sen (2004) points out that development can only be attained when people have freedom to engage in activities that they desire to improve and sustain their lives. The author goes on to say that freedom is seen through individuals' capabilities to do things that they have reasons to value. Kuhumab (2018) asserts that an improvement or increase in any of those capabilities entails a movement towards rural development. In the context of this study, the capabilities are viewed as outcomes of tobacco contract farming in the sense that tobacco contract farming provides people with incomes that contribute to freedom to buy what they want for their livelihoods at household and community levels. Thus, this research focuses on the socio-economic and human development dimensions to assess the contribution of tobacco contract farming to rural development.

2.4. Summary of Review

The theoretical review situates the study in the context of the transactions costs theory. Conceptually, the DFID's Sustainable Livelihoods Framework (SLF) anchors the analytical framework for this study. The review of empirical literature revealed that contract farming concept is a very old concept which has evolved over time. Its impact, though varied across regions, has been observed in all the dimensions of development mainly economic development and social development and the resultant positive effects on people's livelihoods.

3. Methodology

3.1. Research Philosophy and Design

The study followed a pragmatic research philosophy, which is a pluralistic approach that strives to reconcile objectivism and subjectivism paradigms (Creswell, 2015). This study adopted a mixed research design methodology to allow for analysis of convergence of views from the different study participants in the Igava community from whom data were obtained through the questionnaire and interview guide.

3.2. Study Population and Sample

The study population consisted of all smallholder tobacco contract farmers in the Igava community in the Marondera District. The area was preferred in the district because of its dominance in tobacco production in the country and in the province. Furthermore, it was easy to access as compared with the other communities in the district after having considered the Covid-19 induced movement constraints.

According to the TIMB (2020) as of July 17th of 2020, the total number of active smallholder tobacco growers was 543 for the Igava community of Mashonaland East province. A sample of 53 participants was drawn using the criteria of farmers who had been in the contract farming enterprise for at least 15 years. To select respondents from each sub population group, the research applied stratified sampling method because the population was heterogeneous in nature, thus giving equal chances for every unit to be selected. The different strata were based on the villages in the Igava community which were simply named Village 1, 2, 3, 4, 5 and 6, and then sample units were drawn from each sub-population. From each stratum, simple random sampling was applied in the selection of respondents giving the final sample of 40 participants of which 22 questionnaires were completed and 18 interview conducted. Purposive sampling was used for the selection of interview participants who were chosen based on their leadership positions, expert knowledge on the aspects studied. Specifically, six Agricultural Technical and Extensions Services (AGRITEX) officers, four officers from TIMB, three officer from EMA, three officers from FAO, two officers from Zimbabwe Statistics Agency and three traditional leaders were involved in the study as key informants. From the 53 sampled, the actual respondents for the study become 40, giving a response rate of 75.5% which is sufficiently high to provide validity of the study findings.

3.3. Data Collection and Analysis Methods

A pilot study was also carried out to test both data collection instruments. The study used a combination of both primary and secondary data to allow for a balanced assessment of the economic and human development contribution of contract farming in the Igava community. A structured questionnaire with a five-point Likert scale (5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree and 1 for strongly disagree) was used to collect quantitative data from the

selected smallholder farmers in the community. The data collection process complied with the key tenets of research ethics that included informed consent, anonymity, confidentiality and the right to withdraw from the survey at any point during the data collection process.

Descriptive statistics using the Statistical Package for Social Sciences (SPSS) were used to transform raw data into useful and conclusive information to enable interpretation and explanations of a variety of dimensions in the data set. For qualitative data gathered through face-to-face in-depth interviews the analysis was done using NVIVO data analysis tool and thematic analysis.

3.4. Validity and Reliability Test

The Cronbach alpha coefficient test for reliability of the results was used. This reliability test is the most common indicator used for evaluating the internal consistency of the data, reflecting the homogeneity of the scale (Taherdoost & Group, 2017). As a rule of thumb, if the value of Cronbach's alpha is closer and gets to 1.0, it is better and the scale is considered reliable and acceptable. In accordance with this recommendation, Cronbach's coefficient alpha is acceptable when its value equals or goes beyond 0.7. If it is below 0.5, there will be low reliability. Therefore, scores that range from 0.50 to 0.70 are considered moderate reliability while 0.70 to 0.90 is classified as high reliability. The scores from 0.90 - 1 will be interpreted as excellent reliability.

For validity test, construct validity in the form of correlation analysis was used. This was done by calculating the value of Spearman's rho coefficient measure (Lewis & Thornhill, 2019). This method tested the relationships between each item and the overall scale of the dimension where it belonged. In general, if the value of the correlation coefficient is closer or gets to 1.0, the better and it is indicated that the scale is valid, and it is measuring its intended concept (Ghadi, 2012). If the Spearman's rank-order coefficient is below 0.5, it will be deemed low validity and 0.50 - 0.70, moderate validity whichever is unacceptable. 0.70 - 0.90 is classified as high validity and from 0.90 - 1; it will be interpreted as very high validity. These two upper categories spell acceptable validity of the survey instrument, which in this study is the questionnaire.

4. Results Presentation Interpretation and Analysis

Demographic statistics are presented first then followed by the presentation and analysis of survey results.

4.1. Demographic Profiles of Participants

The study participants' demographic information which includes age, gender, education, household size and farming experience is summarised in **Table 2** below.

This low participation of female population (23.5%) in contract farming and in agriculture in general can be linked to the patriarchal culture in most Zimbabwean communities which places women to suppliers of labour in the agriculture industry

Table 2. Study participants' information.

Age Range	Male		Female		Household size		Farming experience (yrs)		Level of education	
	No	%	No.	%	Range	%	Range	%	Level	%
31 - 40	4	18.2	1	4.7	1 - 3	49.6	0 - 5	35.3	Informal Education	15.3
41 - 50	8	36.3	3	14.1	4 - 6	36.3	6 - 10	31.8	Primary Education	4.7
51+	5	22.7	1	4.7	7 - 10	9.4	11 - 15	18.8	Secondary Education	36.5
-	-	-	-	-	10+	4.7	16 - 20	9.4	Higher National Diploma	32.9
-	-	-	-	-	-	-	20+	4.7	Degree and above	10.6
Total	17	76.5	5	23.5		100		100		100

(Chambati, 2017: p. 15). In addition, land ownership patterns in the country show that a small proportion of women own land. The gender disparity noted here have also been observed elsewhere in Africa in countries like Tanzania, Ghana and Mozambique (Yaro et al., 2017; Chemura et al., 2017). On age, 50% of participants were in the age range 41 - 50 consistent with national reports by the Food and Agricultural Organisation (FAO) (2017) that most smallholder farmers in Zimbabwe have an average age of 38 years. Education-wise, a greater proportion (36.5%) of the farmers had secondary education followed by the 32.9% who had higher national diplomas.

4.2. Reliability and Validity Testing

The mean response rate for both the questionnaires distributed and the interviews conducted combined is quite high at 90.85% (40) within the 90% to 100% range considered acceptable or satisfactory in a research by Lewis and Thornhill (2019). Reliability was assessed through use of Cronbach's coefficient alpha. This is the most common indicator that is used to assess internal consistency of the data gathered as well as analysis of the homogeneity of the scale used in the questionnaire. Cronbach's alpha was 0.76 which is higher than the minimum standard of 0.7 as noted by Taherdoost and Group (2017). This means the data was highly reliable and the same results would be obtained if the study is repeated at a later period and even with different samples. Study validity was measured using the Spearman's *rho* coefficient which is used to measure the strength of association between two variables. The stated method tested the relationships between each variable and the overall scale of its dimension. The Spearman's rho correlation coefficients for the study were all above 0.70, implying that all the items referring to the independent variable (Contract Farming) were highly valid. Taherdoost and Group (2017) point out that validity scores above 0.7 denote high validity.

4.3. Presentation and Discussion of Findings

This section is a presentation and discussion of the study findings in considera-

tion of the main research question and objectives that guided the study. The quantitative data were analysed using descriptive and inferential statistics using Statistical Package for Social Scientists (SPSS) version 26 while qualitative data were analysed thematically with the aid of NVivo application version 12.

4.3.1. Economic Contribution of Tobacco Contract Farming to Igava Community Development

Table 3 below shows the summary statistics of means and standard deviations of responses on each statement in the questionnaire.

From **Table 3** below, the highest mean is 3.96 whilst the lowest is 3.48 with an average of 3.76. This overall mean score on the six statements reveals that the respondents generally agreed that smallholder tobacco contract farming is contributing to Igava community economic development as echoed by one of the farmers below:

We did not have jobs in our rural areas. However, since the coming in of contract farming there is high demand of manpower which even benefit those who are not into farming as they get income from being hired by those into tobacco farming (KI19).

The overall standard deviation of 0.616 indicates that, on average, there is a miniscule difference of respondents' views that they agreed smallholder tobacco contract farming has an economic contribution to Igava community development. The finding is corroborated by the interviews conducted where it emerged that the farmers interviewed believed that the smallholder tobacco contract farming is contributing to the economic development of their community. This notion is emphasized in the quotation below from one of the contract farmers.

We use the incomes that we acquire from the sale of our produce to promote the development of community infrastructure through making contributions to the schools and clinic. Some of these incomes we save, and we use them to pay for the labour that we employ for the coming season (KI2).

From the above quotation, the income from tobacco contract farming is used

Table 3. Summary statistics on participants' views on economic contribution of contract farming on Igava community development.

Economic statements structured in the Likert scale format questionnaire	Mean	Std. Deviation
In the past 10 years, more children in this community are now able to complete high school education because of the improved financial ability of some parents emanating from tobacco contract farming	3.96	0.658
In the past 10 years, the community has experienced more children, especially those of parents in tobacco contract farming completing higher education	3.59	0.642
In the past 10 years, the community has experienced more community members especially those in tobacco contract farming pursuing higher education mainly due to improved financial ability	3.49	0.675
More jobs have been created in the community through business and social enterprises by the graduates from the community.	3.48	0.638
Overall mean score	3.76	0.616

to address multiple community development needs in the Igava community. A word frequency analysis of the interview data in shows that increase of household income was quite a widespread theme that emerged from the interviews. In other words, most of the tobacco smallholder farmers interviewed indicated that their economic situation had increased over the years owing to consistent upward trend of tobacco sale prices per kg. **Table 4** below is a thematic frequency table that outlines the tobacco sale price themes which arose from the interviews.

Table 4 below indicates that almost everyone interviewed mentioned that they have experienced an upward trend in the increase of tobacco sale prices over the past 10 years. This can suggest that smallholder farmers have improved their financial ability to meet their household's needs and to meet their community development obligations as emphasised by one of the contract farmers interviewed below.

We used to get low prices on our crops, and this may have been due to inadequate resources, however since the introduction of contract farming, we started getting most of the required inputs and this has improved the quality of our crop. Hence the income increased, and we end up having enough funds to even pay for the required contributions towards development like money to extend the clinic, building of classroom blocks in our community, just to mention a few (KI4).

The quotation above, further illustrates concurrence of the finding that smallholder tobacco contract farming is generally regarded as one of the economic activities which is contributing to the economic community development in Igava. The farmers interviewed also highlighted that quality of life at household level has been enhanced; an aspect they attributed to improved revenues from tobacco contract farming. Some of the highlighted aspects on the dimension of improved quality of life included better housing, roads, health facilities and education infrastructure in the community. It was also mentioned that the improved quality of houses being built in the Igava community indicates improvement of their incomes from the tobacco contract farming enterprises. This was also supported by one of the participants who illuminated this perspective in the statement below.

“Our lives have drastically changed since we started receiving inputs and training from the tobacco contracting firms and we are now managing to

Table 4. Tobacco sale price per kilogram.

Tobacco sale price patterns per kg	Key informants who mentioned the same.	Out of the 18 interviewees	%
There has been an increase in tobacco sale prices over the years	KI1, KI10, KI11, KI12, KI13, KI14, KI15, KI16, KI17, KI18, KI2, KI3, KI5, KI6, KI7, KI8, KI9,	17	94.4
Slightly improved	KI4,	1	5.6

build bigger and modern houses for ourselves. In addition, we have also managed to build proper tobacco curing barns, purchased proper farming equipment and are managing to plant on time,” (KI6)

Thus, the findings appear to reveal that tobacco contract farming is a likely explanation for the economic development in the Igava community. The result presented in **Table 4** in which the respondents generally expressed that tobacco contract farming contributes positively to Igava community development confirms the earlier findings by **Mazwi, Chambai and Mutodi (2020)** who concluded that tobacco contract farming in Zimbabwe significantly contribute to household income, food consumption patterns and acquisition of assets. In addition, the authors further pointed out that contract farming led to economic transformation among the Mvurwi households, this being another community in Mashonaland Central Province of Zimbabwe. The improvements in Mvurwi which the authors cited include transport, roads, farming equipment, housing and household assets.

4.3.2. Contribution of Smallholder Tobacco Contract Farming to Human Development in Igava Community

Table 5 is a summary of the responses in the form of means and standard deviations on whether smallholder tobacco contract farming had an impact on human development in Igava community.

Table 5 below shows that, generally, the respondents agreed that smallholder tobacco contract farming contributed to human development in Igava community as revealed through the overall mean score of 3.76. The highest mean score (4.80) indicates that the respondents strongly agreed that social services are now readily available and accessible in Igava due to improved set of knowledge and

Table 5. Contribution of smallholder tobacco contract farming to human development in Igava community.

Human development statements structured in the Likert scale format questionnaire	Mean	Std. Deviation
Social services are now readily due to improved set of knowledge and skills of community members who are graduating from colleges and universities whose education is partly financed through tobacco contract farming	4.80	0.658
Tobacco contract farming has improved access to better healthcare facilities partly because some of the community members are graduate nurses and doctors who managed to pay for their education out of their parents' income from tobacco contract farming	4.59	0.642
Tobacco contract farming has improved access to better education facilities for children in the area	4.49	0.675
Tobacco contract farming has resulted in improved quality of houses in the community some of which are being built by community members who gained advanced competences in construction from various colleges and the tobacco income largely contributed to their learning	4.48	0.638
Tobacco contract farming has generally improved knowledge in health lifestyle of most people in Igava community	3.47	0.575
Overall mean score	3.76	0.611

Source; Survey results, 2021.

skills of community members who are graduating from colleges and universities; whose education is partly financed from tobacco contract farming income. The lowest mean score (3.47) indicates that there are some who do not agree that improvement on social services which are now readily available is a result of the improved set of knowledge skills of community members. The overall standard deviation of 0.611 indicates that, on average, there is a miniscule difference of respondents' views that they agreed smallholder tobacco contract farming has a positive impact on human development to Igava community development.

The above findings from the questionnaire respondents are further supported by the key informant interview responses. From the interviews, it was raised that the incomes generated from the sales of tobacco contribute to the human development of the farmers as they acquire more farming knowledge and are now able to send their children to school. By implication, when households can financially support their children to go to school, the education the children attain at any level of schooling, contributes to human development. One of the key informants (K02) emphasized this point in the following quotation:

As we sale our tobacco, we can afford to pay school fees and other education expenses for our children (K02).

Thus, some households who are in the tobacco contract farming have improved their financial ability to provide education support for their children. An observation of the community during this study revealed that new schools are being built in the Igava community to decongest the existing secondary schools as more students are now completing their primary education and proceeding to get secondary school education. It is highly likely that due to improved income on the part of farmers more children are now being sent to school which points out to human development. It was also supported by one of the participants in an interview who said;

From the sale of tobacco almost every farmer is now able to eat health, send all his/her children to school and we can see the number of children increasing per school hence the need to increase the classroom blocks in some schools (KI10).

The word tree analysis shows that key words and phrases emerged prominently in the interviews conducted are increased support and subsistence of human development. The results reveal that farmers are increasing the hectareage under tobacco farming because they are realising the benefits of contract farming towards their human and economic development beyond just for subsistence. **Table 6** below is another set of descriptive statistics on the contribution of contract tobacco farming on the general Igava socio-economic community development.

Table 6 shows that the majority of respondents were in agreement that smallholder tobacco contract farming contributed to human development in Igava community as revealed through the overall mean score of 3.46. With an overall

Table 6. Descriptive statistics for Human Development (HD).

Statement	Mean	Std. Deviation
Tobacco contract farming improves health and healthcare facilities	3.61	0.658
Contract farming supports and improves the education of kids in the areas	3.44	0.642
Contractors offer extension services that improve the knowledge of farmers in agricultural production	3.41	0.675
More jobs have been created in the community through business and social enterprises by the graduates from the community.	3.38	0.638
Overall mean score	3.46	0.653

Source; Survey results, 2021.

standard deviation of 0.653, it also indicates that on average, there is a miniscule difference of respondents' views that they agreed smallholder tobacco contract farming has a positive impact on human development to Igava community development. Most of the respondents strongly agreed to the claim that contract farming contributes to the human development for smallholder farmers. The responses are founded on the contribution of contract farming to the farmers' access to human development aspects such as quality healthcare and education services. The results, thus, are indicative of the fact that the financial proceeds that the farmers gain from the sale of their tobacco go a long way in offering them leverage when it comes to decision of health, education as well as extension services. There has also been the construction of a school and clinic contributed to by the community which reflects the human development in the community. The construction of new classroom blocks has been necessitated by an increase in the number of school pupils. This clearly shows that parents are now able to send their kids to school and they also understand the importance of education, and this clearly points out to human development.

The clinic currently serving the Igava community was upgraded from a small consulting and emergency delivery two roomed building in 2014 to the current five roomed one which now can accommodate up to five patients awaiting transfer to Marondera referral Hospital. The expansion of the clinic indicates positive human development and the community's ability to afford the little maternity fee and consultation fee required. Before then, many people in the community would rely on the village mid-wives for giving birth and this resulted in many casualties in deaths at child births and deaths due to lack of medical care. It is most likely that the income from the farming activities has also contributed to this human development in the Igava community.

In view of the findings above, [Key and Runsten \(2009\)](#) suggested earlier that governments should reinforce the labour cost advantages of small family farms by enforcing health standards on farms. Concerning education, which is the second item, the results supported the findings of [Graham \(2008\)](#) where the re-

searchers found a positive contribution of contract farming to education of the local farmers especially their children. The overall results on human development can bring the conclusion that contract farming widens human development for smallholder farmers. This also confirms the sustainable rural livelihoods approach which asserts that human capital incorporates the education level, knowledge and farming skills attained from different institutions. In the case of smallholder tobacco producers, the SLF was helpful in examining the role of tobacco as a cash crop in improving the livelihoods of these communities. The theory was confirmed by a positive response on the contribution of contract farming to education. This argument brings clear the assertion that there exists a positive relationship between tobacco contract farming and human development as the dimension of rural development. More income from tobacco production means they can afford what they cannot afford without contract tobacco farming. Since the contractors give them inputs, they can channel the income they get to building and other development infrastructure.

5. Conclusion and Policy Recommendations

5.1. Summary of Findings

The study findings showed that tobacco contract farming has a positive contribution to economic and human development in the Igava community of Marondera District. In examining the contribution of smallholder tobacco contract farming on economic development of Igava community, the study findings revealed that smallholder tobacco contract farming plays a vital role in the promotion of economic development in the community. This was evidenced through the farmers' household asset acquisitions, upgrading of their homesteads, and contribution to the development of community common infrastructures like schools and health facilities as well as financial ability to send their children to school.

On determining the contribution of smallholder tobacco contract farming on human development of Igava community's development, the study revealed that smallholder tobacco contract farming plays a crucial role in the contribution to the human development of farmers in the community. In other words, it emerged that the tobacco contract farming has led to knowledge acquisition on the farmers and their families as they get opportunities for training on good farming methods, financial ability to send their children to schools. In addition, the findings revealed that tobacco contract farmers also financially contribute towards schools' infrastructures development from the tobacco contract farming proceeds.

5.2. Policy Implications and Recommendations

From the conclusions made, the following recommendations are derived from the study:

- The government should review the Tobacco Contract Farming Policy (TCFP)

and regulations. The government may also consider enforcing laws against the parties that breach contract terms so that whoever fails to adhere to the policies will be brought to book.

- The Government should also provide subsidised farming inputs to small scale tobacco farmers through its programmes like in the maize farming where there is Maize Command Farming Programme in which farmers are provided with subsidised inputs for repayment after harvest.
- To protect farmers from such vulnerabilities as incompetence financially, intense training and engrossment at district and community levels is essential. Presently, there is a substantial shortfall to support the marketing of yields for farmers. Mostly, the support is currently in production and crop techniques and not in the marketing.
- Contracting firms should also ensure timely distribution of the fertilizers, pesticides and other inputs so as to increase the farm yields and income of the farmers including farmers' payment to be done on time.
- Extension service should also be adhered from the seedbeds to the time of harvest and grading of the crops by the responsible personnel appointed by both firms and the Government. Extension practices should also be broadened to include diverse phases of production for example coordination between farmers to boost productivity.

5.3. Suggestions for Future Research

The conditions in the district might be different from other districts producing tobacco in Zimbabwe. Hence, the findings of this study may not be generalized to the rest of the district or nation where tobacco contract farming takes place. Politically, the Marondera district is volatile hence a similar study with a bigger sample and across major tobacco growing districts could help validate the findings of this study. Future research could focus on the gender dynamics in tobacco contract farming and assessment of tobacco farmers' competence to explore further on what gender is contributing to tobacco farming and to what extent. In addition, future researchers could also consider a longitudinal study on the impact of tobacco contract farming on economic development in Zimbabwe to find out to what extent has contract farming contributed to economic development in Zimbabwe.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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