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Ethical Considerations in Contract Farming
The Case of Small-Holder Avocado Farmers in Nkubu, Meru County, Kenya

Patrick Ndungu Mathenge

46910

A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Master in Applied Philosophy and Ethics at Strathmore University

School of Humanities and Social Sciences

Strathmore University

Nairobi, Kenya

August, 2026

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10th June 2026

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Abstract

This dissertation investigated the ethical considerations that influence smallholder avocado farmers in Nkubu, Meru County when deciding whether to honour or dishonour farming contracts. The study was conducted in Nkubu, Imenti South Constituency, Meru County, Kenya, and drew on a sample of 243 smallholder avocado farmers alongside 10 agribusiness aggregators operating in the area. Existing research largely explains this behaviour in economic related terms overlooking/ disregarding the farmer's moral reasoning. This study reframed contract dishonouring as an ethical issue. Anchored in Aristotle's Nicomachean Ethics, the study employed the virtues of justice and prudence as its primary theoretical framework. Using a convergent mixed methods design, the study collected both quantitative and qualitative data. The analysis of quantitative data was carried out for both descriptive and inferential statistics using the IBM SPSS Statistics software (Version 26). On the other hand, qualitative data was subjected to thematic analysis. The results revealed that Contract compliance among smallholder avocado farmers in Nkubu was generally high but conditional. While 65.8% of farmers reported full compliance, 29.6% engaged in partial compliance through side selling and 4.5% defaulted entirely, indicating that dishonouring is largely selective. Ethical analysis showed that perceived injustice increased the likelihood of breach, while prudential reasoning supported compliance. These findings show that contract behaviour is shaped more by perceived fairness and reliability than by economic incentives alone.

Key words: contract farming, virtue ethics, distributive justice, prudence, smallholder farmers, avocado, Kenya.

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Definition of Terms

Agribusiness	Commercial entities involved in the production, processing, and marketing of agricultural products, including firms that engage farmers through contract farming arrangements (Eaton & Shepherd, 2001; Ton, 2018).
Avocado Farming	The cultivation and commercial production of avocados by smallholder or large-scale farmers for local, export, or oil processing markets (USDA, 2025; Amare, 2023).
Contract Dishonouring	The failure by either party, particularly farmers, to fully comply with agreed contractual obligations, including side selling, partial delivery, or complete default (Shepherd, 2001; Ton, 2018; Kagwiria, 2017).
Contract Farming	A system of agricultural production where farmers enter into agreements with buyers to produce and supply specified quantities and quality of produce under predetermined conditions (Eaton & Shepherd, 2001; Minot, 2011).
Ethical Considerations	Moral principles, particularly justice and prudence, that influence decision making and behaviour within contractual relationships. In this study, the terms ethical considerations refer to moral reasoning concerning justice, prudence, fairness, and obligation within contractual relationships, rather than procedural research ethics requirements (Aristotle, trans. 2009).
Prudence	A form of practical reasoning that guides individuals to make decisions based on immediate needs, risks, and consequences, especially under conditions of uncertainty or constraint. (Aristotle, trans. 2009).
Side Selling	The practice where farmers sell part or all their produce to buyers outside the contractual agreement, often in response to better prices or unmet obligations. (Shepherd, 2001; Simmons, 2002; Ton, 2018).
Smallholder Farmer	A farmer operating on a relatively small scale, typically characterised by limited land, capital, and resources, and often reliant on agriculture for livelihood. For this study, a smallholder farmer refers to a farmer operating on fewer than 20 acres of land and relying substantially on agriculture for household livelihood and income generation. (Amare, 2023; USDA, 2025).

Operational definitions of variables employed in this study are provided in Section 1.7. Definitions presented here describe the general meaning of terms as used in scholarly literature.

Chapter 1: Introduction to the Study

1.1 Introduction

In this chapter, the researcher focused on the background of the study by highlighting the peculiarities of contract farming, situating it within a historical context and the ethical concerns that are considered by small holder farmers when they deliberate entering contract farming agreements. This chapter includes the problem statement, the objectives of the study, the scope, limitations, and the significance of the study.

1.2 Background

The researcher was a farmer for five years. In that time, he interacted with many other farmers and agribusiness companies. As regards agribusiness companies, those he came across that were involved in export of fresh fruits and vegetables, seed multiplication, dairy processing and chicken meat processing companies have an implicit bearing on this study. Many of these companies would and still contract farmers to produce exclusively for them. These companies would provide the inputs that the farmers needed, at great expense, and provide a guaranteed market for the resulting produce.

The researcher consistently noted that there were complaints from the representatives of the agribusiness companies concerning the willingness of some smallholder farmers to honour the contracts. The researcher could not help but wonder why this was happening, yet it was well reported that many of these farmers lacked consistent markets for their produce. Why would they then dishonour contracts and risk the loss of safe business? Were decisions to dishonour contracts informed by a desire for more money for their produce? Was it unjust payment terms? Was there an inherent disproportion in benefits and burdens? Was it a real disproportion or a perceived disproportion? The researcher suspected that there could have been a mix of underlying ethical and economic issues. This study will set out to explore the ethical considerations that the cohort of farmers who dishonour contracts make.

Importantly, also, the researcher's experience also suggested that breach of farming contract agreements was not entirely limited to the farmers. The researcher did, after conversations with some farmers, learn that some agribusiness companies were deviating from contractual commitments in ways that the farmers perceived as a material breach or unfair dealing. Three recurring allegations of breach were observed. The first was delayed collection of farm produce beyond the timelines implied or stated in the agreements. The second was delayed payments

extending beyond the timelines implied or stated in the agreements. The third, and most prevalent, was the perceived arbitrary change of terms, especially the tightening or alteration of quality control and grading practices at delivery. These, the researcher observed, were often applied after farmers had already incurred production costs under earlier expectations.

The researcher's early interaction with existing literature and news reports pointed him to explanations that mostly revolved around economic variables such as price volatility, income maximization, transaction costs and price volatilities and market asymmetries. The researcher, however, found these explanations insufficient to fully account for the persistence and moral texture of observed behaviours. Economic models typically assume rational actors responding predictably to incentives, yet the researcher did on occasion observe farmers breeching contracts when the immediate economic gain was marginal, uncertain and outweighed by long term risk. Equally, he did observe, the converse phenomenon: some farmers persisting in contractual relationships that appeared, on purely economic grounds, unfavourable to them, yet they continued to see the contracts through to the end.

Importantly, also, although contract breeches and compliance are analysed as economic decisions, they are experienced, interpreted and judged by both farmers and agribusiness companies in explicitly ethical and moral terms: through the language of fairness, obligation, loyalty, betrayal, honesty, trust and justice. This disjunction between moral evaluation and economic explanation creates an analytical gap.

Guided by Aristotle's virtue ethics, this study will treat compliance and breach as moral actions shaped by character, moral judgement and practical wisdom rather than purely calculative economic responses. An ethical lens will therefore allow for deeper examination of how farmers interpret contractual obligations considering lived experiences of perceived injustice, shifting terms unmet commitments or any other pertinent factor, offering a more comprehensive understanding of contract behaviour than economic analysis alone can provide.

1.2.1 Contract farming and its Peculiarities

Contract farming refers to an arrangement and commitment between producers and processors to provide inputs and outputs with pre-agreed price, time, quality and quantity (Kagwiria, 2017). In Eaton and Shepherd (2011), it was defined as an arrangement between farmers and processing and/or marketing firms to produce. Minot (2011) describes it as agricultural production carried out according to a prior agreement in which the farmer commits to

producing a given product in a given manner and the buyer commits to purchasing it. Often, the buyer provides the farmer with technical assistance, seeds, fertiliser, and/or other inputs on credit and offers a guaranteed price for the output.

Drawing from the Law of Contract Act, Cap 23 Laws of Kenya, and case law, A contract is a legally binding agreement between two or more parties that creates enforceable rights and obligations. A valid contract must, however, bear certain key essentials to be legally binding. It is when pitted against these essentials that peculiarities arise in the case of farming contracts as enumerated below.

1. Offer and Acceptance. For a contract to be legally valid, one party must make a clear offer, and the other must accept it without ambiguity. In a typical sale, the subject matter already exists and is ready to be transferred or collected by the buyer. In contract farming, the subject matter (produce) is contingent. It must be cultivated or grown, and this may fail or may not meet the buyer's specifications. This increases the ambiguity as neither party knows with certainty what will happen in the future.

2. Possibility of Performance. Farming is physically and legally possible to perform from the start. It therefore cannot be likened to the commonly used example of void ab initio contracts of selling land under the sea or on the moon. A farming contract cannot, therefore, be held to be *void ab initio*. However, farming bears significant uncertainty of outcome. Even with great expense and the best effort, pests, drought, floods, or disease can wipe out the expected produce. Performance is not guaranteed. Also, a policy shift such as an export restriction due to pesticide residue can suddenly make performance practically or legally impossible, even if produce exists.

In practice, this may mean that smallholder farmers may be reluctant to sign contracts that bind them across multiple or even a single season, or that they may default when immediate opportunities for cash present themselves as the present is a more certain concept than future considerations. In L. Casaburi (2018), the same pattern emerges with insurance schemes, where paying premiums for a potential payout in the future that may or may not materialise often feels less urgent than meeting present real needs such as school fees, food, or medical costs. L. Casaburi (2018) concludes that programs designed from a Western, future-oriented perspective, assuming that people are comfortable deferring present utility for long-term possibilities, will often encounter resistance or very low uptake in rural Sub-Saharan Africa.

These peculiarities matter because they generate recurring moral and practical tensions. When outcomes are uncertain and information relatively unequal, disagreements are likely to arise about what each party "owes" the other, what counts as fair adjustment and when a deviation becomes a breach rather than a legitimate response to changing conditions.

These peculiarities, however, are not unique to our contemporary business environment. Society has long struggled with reconciling future-oriented obligations with uncertainty of performance in an environment of asymmetrical risk. To appreciate the continuity within the agribusiness space, it is necessary to situate modern contract farming within its historical evolution.

1.2.2 Historical evolution of Contract farming

The practice of contract farming, though often associated with contemporary agribusiness models, has a longer and more complex history. Contract farming reflects broad shifts in economic organisation, land tenure systems, and market interactions. Its evolution can be traced from ancient arrangements of land use and tenancy, feudal and colonial structures, to modern globalised food systems. Across these periods, societies have repeatedly sought to stabilise access to agricultural produce, manage risk, and secure labour or produce under defined terms. Reviewing this historical evolution reveals how contract farming has maintained its central logic: binding agricultural producers and buyers in agreements that allocate rights, responsibilities, and benefits.

1.2.2.1 The Thetes System

In classical Greece (broadly, the 5th–4th centuries BC), land was central to citizenship and political power. Aristotle, in "*Politics*", linked land ownership to self-sufficiency and participation in the *polis* (Aristotle, Politics 1256b). However, many Greek peasants (the *thetes*) cultivated marginal plots and were often indebted to wealthy landowners. As Finley (1973) explains, these relationships could resemble patron–client bonds where peasants cultivated land under obligations to aristocrats. While not identical to modern contract farming, the dependency of smallholders on elite landholders illustrates an early form of structured obligation tied to agricultural production.

1.2.2.2 The Latifundia System

In ancient Rome, especially from the late Republic into the early Empire (roughly from the 2nd century BC onward), the latifundia system emerged as large estates worked by slaves, tenant farmers (*coloni*), or sharecroppers. Saller (1987) describes how the *coloni* cultivated landlords' land in return for rent or a share of produce, resembling later forms of serfdom. Banaji (2001) further argues that Roman agrarian structures developed "proto-feudal" relations as tenants became increasingly bound to land and hereditary obligations began to crystallise.

1.2.2.3 Feudal and Manorial Systems

Contract farming finds clearer roots in the feudal and manorial systems of medieval Europe, but with an important difference of voluntariness. Lords provided access to land (and often seed, draft animals, and protection), while peasants or serfs provided labour and a share of the harvest. As Bloch (1961) explains, these arrangements created binding obligations tying producers to deliver a portion of output under agreed or imposed terms. While not "formal contracts" in the modern legal sense, they involved reciprocal expectations of input provision and output delivery, hallmarks that echo contemporary contract farming.

Van Bavel (2002) notes that by the late medieval period, tenancy agreements became more formal and market-facing. Landlords and monasteries could lease land and sometimes advance grain or productive resources, and in return tenants delivered fixed rents or produce shares. This reduced uncertainty for landowners by securing predictable inflows (food or cash rents) while transferring much of the production risk to cultivators, similar in structure to modern contracts where agribusiness seeks supply security and quality compliance while farmers absorb production risks.

1.2.2.4 Slavery and the Sharecropping System

In the United States, plantation slavery from the 17th to 19th centuries resembled Roman latifundia in its reliance on coerced labour sustaining large-scale monocrop estates. Enslaved Africans and their descendants were legally bound to provide labour in exchange for food, clothing, and housing as their only compensation (Genovese, 1974).

After abolition in 1865, many freedmen entered sharecropping arrangements where they farmed landlords' land in exchange for a portion of the harvest. Foner (1988) notes that this system tied black farmers to landowners through debt, crop liens, and limited access to

alternative markets. Sharecroppers were technically free but practically constrained by obligations limiting mobility and autonomy. In structure and function, sharecropping prefigured colonial land tenure systems later imposed on Africa, where access to land and markets was conditional upon supplying labour or produce to more powerful actors.

1.2.2.5 The Colonial System

The colonial Kenya land tenure system was established through ordinances such as the 1915 Crown Lands Ordinance. As Berman (1990) explains, Africans were permitted to remain on settler estates only if they provided labour, hut taxes, rent, or a portion of the harvest. This was essentially a structured exchange of land access for output. Ogendo (1991) argues that the colonial state institutionalised a "tenancy-at-will" system under which African farmers lacked secure land rights but bore obligations to settlers. This mirrors asymmetries observed in modern controlled contract farming systems, particularly those of coffee and tea. In these, smallholders often have limited bargaining power and companies can strongly shape production, delivery, and payment terms. Tea and coffee agreements have also been described as difficult to exit for farmers (Watts, 1994).

1.2.2.6 Critical Differences

There are significant differences between modern contract farming and the colonial, sharecropping, *manorial*, feudal, *latifundia* and *thetes* systems. First, earlier systems were embedded in rigid social hierarchies and obligations and enforced through coercion, racialised law and limited mobility. Sharecroppers, slaves, serfs, *coloni* and *thetes* were not free to exit contracts easily, unlike modern avocado smallholders who have autonomy. The autonomy, as earlier noted, is much limited in the case of contemporary tea and coffee farming which is intertwined with social political and legal factors beyond the scope of this study. Secondly, the focus of the earlier systems, with the colonial and latifundia systems as the notable exceptions, was subsistence farming plus feudal rent, rather than export market integration.

Still, scholars note that in practice, modern contracts can reproduce the same dependency. This is particularly the case when smallholders face high switching costs (as is the case with any long-term perennial crop like avocado) or lack alternative markets (Oya, 2012). Today, contract farming is recognised as a central institution in global agri-food systems. Sartorius (2002) argues that it represents a form of vertical coordination mechanism that balances risks and rewards between smallholders and agribusiness companies, though often asymmetrical.

Contemporary debate emphasises both its potential for smallholder inclusion in high-value chains and its risks of deepening dependency and exploitation whether real or perceived (Ton, 2018). Across Kenya, the debate on contract farming has been positively affirmed and touted not only as an economic tool but also a policy prescription for rural development.

This historical overview illuminates a recurring logic (risk transfer and supply security) and some inherent asymmetries but with farmers as structural subjects. The gap, however, which still stands out is in the micro level moral reasoning of present-day small-holder farmers in justifying honouring or breaching contracts in terms of Justice and prudence considerations. This study seeks to fill that gap by foregrounding farmer level ethical deliberations as they relate to justice and practical wisdom.

1.2.3 The Ethical Lens

As earlier suggested in the background to this study, a major body of literature does explain contract breach using economic or social political lenses. It often assumes that farmers act through economic self-interests: they side sell, for example, when spot prices exceed contract prices, when enforcement is weak or when liquidity needs are urgent. These explanations are important, may be complete in and of themselves and will not be ignored. However, they do not fully account for all patterns that the researcher has observed:

1) why some farmers honour contracts even when side selling is profitable,

2) why some farmers refuse to contract even when contracts appear beneficial and

3) why farmers often interpret disputes through language of fairness, betrayal, respect, patience, honesty and justice; categories that transcend economic calculus.

This study also sought to confirm if agribusiness companies breach contracts, the question was not only, "why do farmers side sell?" but also "do farmers interpret what has been done to them as morally repugnant and what do they believe they are entitled to do in response?" This is precisely where an ethical lens added explanatory power. It helped examine; obligations, the source of these obligations, proportionality of burdens and benefits, the legitimacy of retaliation, the importance and place of trust in these contractual arrangements and how trust is built or destroyed in contractual relationships.

Additionally, this study treated the time orientation as a possible empirical and contextual

factor that may vary across education levels and prior contracting experience. Where relevant, it was explored cautiously through farmer's own narratives rather than asserted as a cultural constant. In this respect, the study was attentive to the possibility that what appears as "present orientation" may also be a rational response to liquidity constraints and uncertainty; an insight consistent with the evidence from insurance uptake and intertemporal choice under risk as outlined by Casaburi (2018).

1.2.4 Contextual Background: Avocado Farming in Meru County

Avocado production in Kenya has increased rapidly. Growing international demand for fresh avocado fruits and avocado oil has provided the impetus for this growth. Recent international official estimates indicate that production reached 633,000 metric tons in 2023 before easing to 562,000 metric tons in 2024 due to reduced rainfall. Output is projected to rebound to 585,000 metric tons in 2025 as more recently planted trees come into commercial productivity (U.S. Department of Agriculture [USDA], 2025). The same report also states that small-holder farmers dominate the industry. Roughly 70% of Kenya's 966,000 avocado farmers manage small orchards.

Within this national picture, Meru County (including Nkubu in Imenti South; Figure 1.1) has emerged as a key production zone in the Mount Kenya region. Evidence from a Consultative Group on International Agricultural Research (CGIAR) case study shows that farmers in Meru are diversifying away from traditional cash crops (coffee and tea) into avocado. This has been supported by contracting arrangements and farmer groups to meet quality and logistics requirements (Amare, 2023). The same analysis indicates that Kenya relies on a variety of contract models, with a notable prevalence of intermediary arrangements that link agri-processing companies to farmers through producer groups, brokers or aggregators. While these structures facilitate low-cost aggregation for the companies, they often diminish farmers' direct access to contract terms, pricing mechanisms and decision-making processes, thereby creating trust loopholes in which misunderstandings, perceived unfairness and opportunistic behaviour can emerge (Amare, 2023).

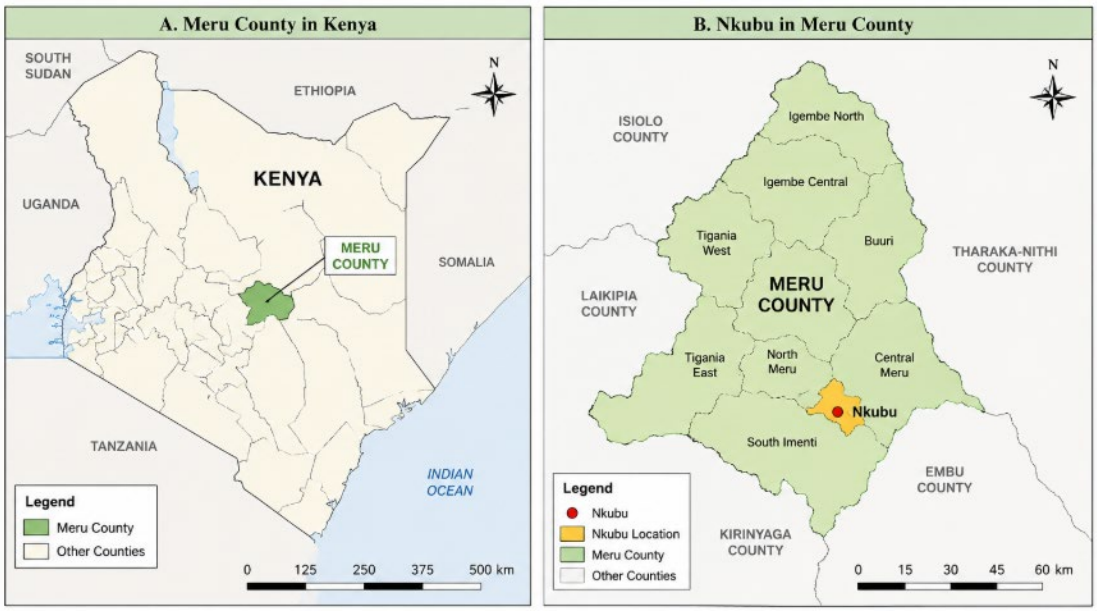

Figure 1.1: Map of Kenya Showing Meru County and Position of Nkubu

1.3 Problem Statement

Contract farming has been widely promoted as a mechanism for integrating small holder farmers into formal markets, stabilising incomes and reducing production and marketing risks. Existing studies on contract farming in Kenya and similar contexts, largely explain contract compliance or its lack thereof, in economic terms. These studies have predominantly focussed on price incentives, income maximization, transaction costs and market volatility. While these factors are significant, they do not adequately explain observable behaviours such as persistent contract breeches despite long term economic disadvantage and continued honouring of contracts despite short term economic unfavourableness to some farmers.

Moreover, decisions to honour or dishonour farming contracts are frequently framed in moral terms which invoke notions of fairness, obligation, trust, honesty and good faith. However, these ethical considerations remain under examined in empirical studies which tend to treat contract breach primarily as an economic or enforcement problem. This creates a gap between how contractual behaviour is experienced and justified by actors on the ground and how it is analysed in existing scholarship.

In Nkubu, Meru County, small holder avocado farmers operate within contractual arrangements characterized by information asymmetry, intermediary linkages and evolving production and quality requirements. While such contextual factors influence decision making, they do not negate the role of moral reasoning in farmers' responses to perceived unfair

dealings such as delayed collections, delayed payments or altered terms and conditions. There is limited empirical evidence on whether, and how, farmers deliberately assess considerations of justice and prudence when deciding to honour or dishonour their contract arrangements. This study therefore sought to address this gap by examining the ethical considerations influencing Nkubu avocado farmers' decisions to honour or dishonour contract farming agreements, with particular attention to the virtues of justice and prudence.

1.4 Research Aim, Objectives, and Research Questions

The aim of this study was to examine the ethical considerations, particularly those related to the virtues of justice and prudence, that influence smallholder avocado farmers' decisions to honour or dishonour contract farming agreements in Nkubu Constituency. Further, the study assessed how these considerations are perceived by both farmers and agribusiness companies with a view to inform ethically grounded interventions in contract design and implementation.

1.4.1 Specific Objectives

1. To establish the prevalence of avocado farmers who dishonour farming contracts in Nkubu Constituency, compared to those who keep them.
2. To establish farmers' perspectives on the dishonouring of farming contracts.
3. To establish agribusinesses' perspectives on the dishonouring of farming contracts.
4. To propose interventions that can enhance ethical conduct and fairness in the design and implementation of agricultural contracts.

1.4.2 Research Questions

1. What is the prevalence of avocado farmers who dishonour farming contracts in Nkubu Constituency?
2. What reasons do farmers give for dishonouring farming contracts?
3. What reasons do agribusinesses give for the dishonouring of farming contracts?
4. What interventions would enhance ethical conduct and fairness in the design and implementation of agricultural contracts?

1.5 Scope and Limitations of the Study

1.5.1 Scope of the Study

This study is geographically confined to Nkubu, Imenti South Constituency, Meru County of Kenya. It focused on smallholder avocado farmers who had sold avocados within the preceding 12 months, and agribusiness actors operating at the local level within this region. Data collection was conducted between January and March 2026. Nkubu was selected because it has previously been the subject of empirical research documenting farmer diversification away from tea and coffee. These crops have historically characterized tightly controlled contract farming arrangements with fixed market off takers. As such, the region offers a well-documented transition context against which emerging avocado contracting practices can be examined.

Smallholder avocado farmers have been chosen because they bear great exposure to the risks and ethical dilemmas of contract farming. The researcher also postulates that they have very limited bargaining power and that any changes in terms of contract, payment arrangements and grading practices may have a direct and disproportionate impact on their welfare. This makes smallholder avocado farmers well suited for a virtue ethics analysis that highlights justice and practical wisdom considerations. By studying smallholder avocado farmers in Nkubu, this research aims to contribute not only to the philosophical debates on applied ethics but also to practical insights for agribusiness design and policy making in this sector.

The timing of this study is also opportune as many Hass and Fuerte avocado orchards planted between 2018 and 2020 are only now entering full productivity. The researcher estimates that this transition into full productivity has thoroughly tested farmers' patience and trust in contractual promises. This is therefore a critical moment to analyse moral reasoning. Due to policy suggestions that the author has been privy to, this may also be an important historical juncture in which the Kenyan avocado industry may shift from fragmented spot market transactions towards more structured contracting, certification and integration into global supply chains. This, though, is speculative. The study's timing therefore ensures its findings will be both immediately relevant for practitioners and enduringly significant for understanding the ethical dimensions of agricultural commercialization.

1.5.2 Limitations of the Study

This study encountered several limitations. First, time constraints presented a challenge as contract farming decisions and disputes often coincided with harvest and payment cycles.

Given the seasonality of avocado production, overlaps with peak harvest periods affected the availability and willingness of farmers and agribusiness representatives to participate in surveys and interviews. To mitigate this limitation, data collection was planned to avoid peak farm activity periods where possible and flexible scheduling was employed to accommodate respondents' availability.

Second, financial constraints served to limit the breadth of fieldwork. This included travel, enumerator training and repeated site visits. This restricted sample size or opportunities for follow up engagement. To address this, the study prioritised efficient sampling strategies, utilized trained local data enumerators and combined quantitative surveys with targeted qualitative interviews to maximise data depth within available resources.

Third, the researcher's positionality as an industry participant influenced respondents' perceptions. While this involvement provided valuable contextual understanding and access, it also created perceptions of partiality where respondents believed the researcher to be closely associated with one side of the contractual relationship. The limitation was addressed by use of independent enumerators who did not disclose to respondents the identity of the researcher.

Fourth, variations in agribusiness companies' presence and organisational strength across the area limited the generalisability of the findings beyond Nkubu and similar avocado growing areas. The study did not claim national or cross-country representativeness; rather, it offered analytically grounded insights that may be transferable to comparable contexts.

Finally, some empirical issues such as delays in payment simultaneously presented as economic harm and perceived injustice and causes for prudent action. This led to overlap between analytical categories. To address this, the study employed factorial vignettes and mixed method triangulation which allowed respondents' moral reasoning to be examined across multiple dimensions and reduced ambiguity in classification

1.6 Significance of the study

This study reframed a persistent operational problem in the agricultural sector: the dishonouring of farming contracts, as an ethical question rather than merely an economic or enforcement issue. By classifying and weighting the reasons given for defaulting, the study generated a taxonomy of the moral considerations that shape the behaviour of small holder avocado farmers. In doing so, the study advanced applied ethics by grounding abstract ethical concepts in lived decision making and provide evidence linking Aristotelean virtue ethics to

concrete choices made at the farm gate.

The practical significance of the study lies in its relevance to agribusiness firms currently facing challenges not only of contract compliance but also of contract design particularly with respect to clarity, fairness and adaptability of terms. By illuminating how farmers interpret and respond to contractual obligations in moral ethical terms, the study offers insights that can support the design of contracts that encourage substantive compliance rather than mere formal adherence. The findings also provide policymakers and agribusiness leaders with farmer-based evidence foundation for interventions aimed at strengthening ethical conduct, fairness and trust in agricultural contracting thereby supporting sustained market participation and the continued growth and competitiveness of the avocado subsector.

1.7 Definitions of Key Terms and Operationalisation of Variables

Smallholder Farmer: In this study, a smallholder farmer refers to a farmer operating on fewer than 20 acres of land and cultivating at least five avocado trees within that space. This operational definition is adopted in line with classifications commonly used within Kenyan agricultural policy frameworks, including those associated with the Agriculture and Food Authority (AFA).

Contract Honouring: In this study, contract honouring refers to a farmer's adherence to agreed contractual obligations, including exclusive delivery of produce, compliance with quality specifications, and observance of agreed delivery schedules.

Contract Dishonouring: In this study, contract dishonouring refers to actions by farmers that deviate from contractual obligations, including side selling, partial delivery, delayed delivery, or withdrawal from contractual arrangements prior to fulfilment.

Justice (Ethical Variable): In this study, justice refers to farmers' perceptions of fairness in contractual terms and implementation. This includes perceptions regarding pricing, grading practices, payment timelines, distribution of benefits and burdens, and the consistency of contractual enforcement.

Prudence (Ethical Variable): In this study, prudence refers to the practical reasoning farmers employ when deciding how to act under contractual conditions, particularly in contexts of uncertainty, perceived unfairness, financial pressure, or risk of loss.

Ethical Considerations: In this study, ethical considerations refer to moral reasoning concerning justice, prudence, fairness, obligation, trust, and good faith within contractual relationships, rather than institutional or procedural research ethics requirements.

1.7.1. Operationalisation of Variables

Prevalence of contract dishonouring was measured through self-reported contract compliance behaviour. Perceptions of justice were measured using Likert scale items. Prudence was examined through factorial vignette responses which captured farmer's reasoning in ethically ambiguous scenarios. This operationalisation allowed ethical constructs to be analysed quantitatively and qualitatively while remaining grounded in farmers lived experiences.

1.8 Assumptions and Hypotheses of the Study

This study was guided by the following key assumptions

1. Smallholder farmers are capable of deliberate moral reasoning and do not act solely as economically rational agents.
2. Decisions to honour or dishonour contracts are shaped by ethical judgements alongside economic considerations
3. Farmers' perceptions of fairness and prudence influence their contractual behaviour in meaningful ways

Given the inclusion of the quantitative component, this study tested the following hypotheses:

1. H_1: Smallholder avocado farmers who perceive contractual arrangements as unjust are more likely to dishonour contract farming agreements
2. H_2: Farmers' prudential assessments significantly influence decisions to side sell, discontinue or honour contracts.
3. H_3: There is a statistically significant difference in ethical reasoning patters between farmers who honour contracts and those who dishonour them

These hypotheses align with the study's mixed method design and allow ethical reasoning to be examined empirically.

Chapter 2: Literature Review

2.1 Introduction

This chapter provides a selective survey of the most significant literature on the practice of contract farming in developing countries, with a specific focus on sub-Saharan Africa. This chapter is thus structured into a contextual review, empirical review and the theoretical framework. The chapter also presents the knowledge gap the study seeks to fill.

2.2 Contextual Framework Literature Review

This section briefly reviews the contextual literature that surrounds avocado farming in Kenya with a particular emphasis on Meru County. It examines the growth and structure of the avocado industry, the role of the smallholder farmer and the regulatory and certification requirements that shape the sector. Key production trends and challenges that influence the performance of the avocado sector are also highlighted.

2.2.1 Overview of avocado farming in Kenya and Meru County

Globally, Kenya is rapidly becoming a leading avocado producer and exporter. Its production spans over thirty counties across the central highlands, Rift Valley, western Kenya and parts of the eastern region. The sector is dominated by smallholder farmers who account for approximately 70% of Kenya's production (USDA 2025). Exports of fresh fruit have diversified beyond the traditional European Union, United Kingdom, and Middle East markets to include China, following the 2022 signing of new phytosanitary protocols and the commencement of shipments (SEI, 2024). To safeguard export market access, regulatory agencies, including the Horticultural Directorate and the Kenya Plant Health Inspectorate Service (KePHIS), enforce maturity windows and conduct phytosanitary inspections. These directorates can and do enforce temporary suspension of sea shipments to curb the export of immature avocados. (Nation Newspaper, 2024).

Despite dynamic growth, structural challenges persist. Industry studies have highlighted the burdens of certification, including Global Good Agricultural Practices (GlobalG.A.P.), Food Safety System Certification (FSSC), and Fairtrade certification, alongside high compliance costs and inadequate cold chain infrastructure, as key barriers to smallholder participation (SEI, 2024; Ton, 2018). County-level data show that Murang'a, Kiambu, Nakuru, and Meru are among the largest producers, with economic value driven by the dominance of the Hass Avocado variety in this region and the expanding packhouse capacity in these regions, as well

as in the capital, Nairobi (Amare, 2023).

Within this national picture, Meru County, and particularly Nkubu region, has emerged as a key production zone in the Mount Kenya region. Farmers in Meru have been diversifying away from tea and coffee, encouraged by the strong demand, rising prices and support from intermediary models (Amare, 2023). Another recent case study by the Consultative Group on International Agricultural Research (CGIAR) shows that while contracting agreements and aggregation centres have facilitated access to export markets, they have also limited farmers' visibility into pricing structures. The study, however, did not provide any evidence as to whether the farmers have a real interest in being able to directly access export markets. The report emphasizes that smallholders in Meru often rely on brokers for harvesting and grading, which directly influences the possibility of rejection at the exporters' packhouses, and the prices received. Another cohort of farmers does not rely on brokers and has entered farming contracts directly with the exporters. These dynamics make Meru, and Nkubu specifically, an analytically rich setting for exploring how smallholder farmers perceive fairness and exercise prudential reasoning in contract farming.

In summary, prior work establishes Kenya's rapid avocado sector growth and Meru County's strategic role. The gap is in how smallholder farmers in Nkubu or even the larger Meru area morally evaluate contracts and the respective transactional activities. This study will seek to address this gap.

2.2.2 Contract Farming in African Scholarship: Economic, Political Economy, and Ethical Perspectives

Contract farming has often been examined from the standpoint of economics, efficiency and rural development outcomes. Scholars are, however, increasingly highlighting the ethical dimensions. Watts (1994) argues that beyond the technicalities of input provision and produce delivery, contract farming structures everyday relationships of power, dependency and fairness in rural communities. Watts' framework is rooted in political economy and agrarian studies. He analyses contract farming through the lens of agrarian political economy, dependency theory, and world systems analysis, focusing on how contracts reshape power relations, rural livelihoods, and the integration of smallholders into global commodity chains. He argues that contract farming must be understood as part of the "moral economy" of peasants where cultural expectations of fairness, reciprocity and survival intersect with capitalistic imperatives. Watts draws this from James Scott's book on the peasant resistance titled, The Moral Economy of the

Peasant published in 1976, thus allowing him to frame contract farming as a site of negotiation, resistance and adaptation rather than simply a market transaction.

Oya (2012), on the other hand, notes that much of the African Debate on Contract farming has overlooked ethical considerations, focusing instead on policy prescriptions and institutional performance. His approach draws heavily on Marxist and neo-Marxist traditions and uses the dependency theory and development studies to argue that contract farming often reproduces inequality and labour exploitation despite donor claims of inclusion and modernisation. This article primarily critiques the "win-win" narratives surrounding contract farming, instead advocating for empirical scrutiny of power asymmetries and structural dynamics. Like Watts (1994), Oya's work is part of the literature that treats contract farming as a political–economic relationship shaped by capital, labour, and state rather than as an ethical problem of virtue.

Kagwiria's 2017 article on the "Factors Influencing Contractual Farming in Kenya: A case of Buuri Constituency, Meru County, Kenya", is applied research in agribusiness and rural development. The framework is institutional, primarily focusing on economics and development studies, with an emphasis on factors such as access to inputs, extension services, credit, market access, and pricing. The study draws on transaction cost economics and agricultural commercialisation models, where farmer participation in contracts is influenced by institutional support, risk management, and incentives. The study is positivist, examining the determinants of contract participation and outcomes, rather than virtue or ethical reasoning.

Tschirley (2009), in his work on lessons from contractual cotton farming in Africa, also draws from agricultural economics and institutional economics, focusing on coordination failures in input delivery and side-selling dynamics. Most scholarly studies on contract farming in Africa are dominated by economic and political economic perspectives with little attention to the moral reasoning of farmers.

By contrast, studies that explicitly apply virtue ethics in agriculture are rare; however, some important contributions exist. Kampmann (2015) applied a virtue ethics framework to examine the role of contemporary farmers. She identified role models such as the sustainable or steward farmer, and she analysed how these embody character and virtue. Although this work was not within the context of contract farming, it illustrates that Aristotelian categories can be used to assess agricultural practices by focusing on the moral character of farming practices and activities. Similarly, research on corporate social responsibility in African agriculture has

invoked the language of virtue and stewardship (e.g., Dolan, 2010), although the emphasis is on corporate actors, rather than smallholder farmers. In another approach, Valentinov (2024) proposes a stakeholder theory perspective on contract farming in transitional economies, thus emphasising trust, reciprocity and relational ethics. While not explicitly Aristotelian, this approach resonates with virtue ethics in highlighting virtues such as trustworthiness as being central to agricultural contracts.

Existing work prioritizes political economy and institutional efficiency. Analysis of virtue ethics is largely unavailable. This study seeks to provide this application.

2.2.3 The Prevalence of Avocado Farmers Who Dishonour Farming Contracts.

As earlier highlighted, contract farming has been widely promoted as a mechanism for linking smallholder farmers to markets, stabilising incomes and ensuring reliable agricultural production. Contract dishonouring has been a persistent challenge. Studies in Asia, Latin America, and Africa have shown that it mostly takes the form of side selling or breach of agreement. Side selling is mainly done to competing buyers who offer better spot prices or by failing to deliver the agreed quantities or quality of produce (Shepherd 2001; Lim, 2018).

Globally, the prevalence of contract dishonouring has been linked to fluctuating market prices, inadequate enforcement mechanisms, and asymmetrical bargaining power between farmers and agricultural companies. For example, research into India's poultry and horticultural sectors reveals that farmers often engage in side-selling when open market prices rise significantly above contracted prices (Singh, 2002). Simmons (2002) points out, on the other hand, that side selling is reported more often when institutional enforcement is weak and monitoring costs are high. The researcher can attest to this phenomenon with personal experiences drawn from the Kenyan coffee sector. Due to the limitations of coffee market access in Kenya, compliance to coffee farming contracts is ruthlessly enforced; farmers face ejection from their coffee society even when they complain about injustices perpetrated by the coffee society. The researcher's father was a victim of this after protesting bad governance at his local coffee society. For an extended period, he had to sell his coffee to the local coffee society through his mother's registration number. Conversely, Simmons (2002) argues that contract dishonouring is not just a matter of individual ethics but also a structural issue embedded in market volatility and institutional control.

Tschirley (2009) notes that in Sub-Saharan Africa, contract dishonouring is particularly acute

in sectors such as cotton, tobacco, and sugarcane. She notes that African cotton farmers frequently default when competing ginners offer better terms, a phenomenon which has destabilised entire national industries. Oya (2012) further highlights how limited state oversight and high transaction costs constrain companies' ability to enforce contracts. His recommendations, however, reflect a communistic approach that leaves farmers strictly restricted from dishonouring agreements even when it is economically beneficial to them. In Kenya, similar patterns have been documented in the horticultural sector. This is particularly the case in relation to French beans, where farmers sell to brokers despite prior contracts with exporters (Ngigi, 2010).

Kagwiria (2017) links the prevalence of contract dishonouring to structural and relational factors. She notes that farmers often complain of unfair grading, delayed payments or unilateral changes in terms, which motivate them to sell to alternative buyers who offer immediate cash and less stringent requirements. Therefore, for smallholders in regions where multiple buyers compete for the same produce, side selling becomes a rational strategy to maximise returns and manage risks.

Focusing more narrowly on avocado farmers in Kenya, recent studies and industry reports indicate that contract dishonouring is widespread and poses a significant threat to the continued growth of the avocado export industry (ASK, 2022; Gathungu, 2021). Kenya is one of the leading exporters of Hass avocados in Africa. Demand from Europe and the Middle East has intensified competition among exporters. This competition has encouraged smallholders to renege on agreements with contracted exporters and instead sell to middlemen offering higher farmgate prices during peak export seasons (Gathungu, 2021). The Avocado Society of Kenya has repeatedly raised concerns over farmers breaching contracts, resulting in inconsistent quality and quantity control, as well as reduced international buyer confidence (ASK, 2022).

Thus, while contract farming has the potential to secure markets for smallholder avocado farmers, the prevalence of dishonouring of agreements underscores the structural challenges faced by the farmers and the relational challenges faced by the agricultural companies. In the Kenyan avocado value chain, addressing these challenges will be vital to ensuring sustainable, farmer–buyer relationships and long-term industry credibility.

In summary, the prevalence of dishonouring contracts is well documented and structurally explained by price and enforcement parameters. The gap is the ethical dimension; whether

farmers see dishonour as unjust or as a prudential action, and how and if companies morally construe breach. This study seeks to measure and explain these ethical framings.

2.2.4 Farmers' perspectives on why they dishonour farming contracts.

Shepherd (2001) and Simmons (2002) note that farmers do not view contract dishonouring as a matter of deliberate irresponsibility. It is often a rational response to unfavourable contract terms, breaches by buyers or pressing livelihood needs. Shepherd and Simmons go further to indicate that, globally, the most cited reason for contract dishonouring is dissatisfaction with pricing. Similar findings have been reported in studies from India; Singh (2002) and Vietnam: Key (2002), where smallholders view side selling as an economically rational choice rather than a breach of trust.

Beyond price considerations, farmers may perceive contracts as exploitative and unfair when they impose undue burdens on farmers (Bellemare, 2012). Bellemare reports on grading standards and quality requirements which are manipulated in favour of buyers. Kusterer (1990) had earlier documented how farmers in developing countries perceived the rejection of their produce as arbitrary and unfounded, leading to high levels of dissatisfaction and discontent. Watts (1994) also noted that farmers in Africa often interpret contract terms as coercive, as they have limited room for negotiation, and this undermines trust and increases the likelihood of contract breach.

Another key reason for contract dishonouring is poor service delivery and failure of firms to meet their own obligations. Other studies conducted in Africa and Asia have shown that when buyers delay in collecting produce, fail to provide promised inputs, or withhold timely payment, farmers will interpret this as a breach on the buyer's part, which can be legitimately reciprocated with default (Baumann, 2000; Prowse, 2012). Ton (2018), in a meta-review of contract farming studies, emphasises that a farmer's willingness to comply depends heavily on whether firms honour their obligations consistently.

Kydd (2010) adopts a similar stance, arguing that side selling is a rational livelihood strategy in contexts of weak contract enforcement and high price volatility. Tshirley (2009) documents widespread default among cotton farmers in Mozambique and Zambia, attributing it to distrust of ginning companies and the lure of higher spot prices. Oya (2012) also finds that farmers view contracts with suspicion due to power imbalances, unpredictable input supply and payment delays.

In Kenya, farmers articulate very similar perspectives. Ngigi (2010) notes that horticultural farmers often complain about delayed payments, with some exporters taking weeks or months to remit dues. As a result, farmers prefer to sell to middlemen who pay immediately, even at lower rates. Swinton (2007) finds that Kenyan French bean farmers perceive grading criteria as excessively and unnecessarily strict, leading to frequent produce rejection and prompting them to side sell to informal traders. The researcher can attest to this, as he has witnessed many pickup loads of rejected French beans on their way to disposal from a relatively small packhouse in the export processing zone of Athi River. To this point, Kagwiria (2017) insists that this is the reason why contract farming is perceived as lacking transparency and arrangements within which terms are often altered unilaterally.

Avocado farmers in Kenya provide even more specific reasons for dishonouring contracts. According to Gathungu (2021), smallholders view brokers as more reliable partners than exporter agribusiness companies. This is because brokers offer cash at the farm gate and are less stringent in their quality standards. ASK (2022) reports that mistrust of exporters, coupled with complaints about arbitrary deductions and slow payment schedules, has fuelled widespread side selling in Muranga, Kiambu and Meru counties. Kiambi (2020) notes that avocado farmers often perceive contracts as failing to adequately reflect their production risks, as price fluctuations and poor harvests are borne entirely by them. Consequently, many default when given the chance to secure better terms in the informal market.

Overall, the farmers' perspectives reveal that, according to them, contract dishonouring is never simply an act of opportunism. To them, it is a strategy to cope with market volatility, weak enforcement and unmet household needs. Available literature, therefore, captures reasons but not the moral categories farmers use, for example proportional fairness vs. prudential necessity vs duty. The gap is to classify stated reasons into virtue – ethical constructs and contrast deontological/ utilitarian frames and assess their association.

2.2.5 The perspectives of agribusiness companies on why farmers breach agricultural contracts.

From the perspective of agribusiness companies, dishonouring contracts manifests as side selling, delivery shortfalls, and quality noncompliance. Companies consistently report that farmers divert output to rival buyers when spot prices at harvest time exceed the contract price (Shepherd, 2001; Bellemare, 2012; Ton, 2018). This, they report, undermines supply security and investment recovery. Companies view this as a classic moral hazard in incomplete

contracts intensified by weak legal enforcement and reputational sanctions (Vandeplas, 2010; Sexton, 2013).

It becomes even more morally convoluted when companies pre-finance seeds, fertiliser, pesticides or offer technical assistance. They often report "leakage" as farmers take inputs but sell harvests off contract, thus defeating cost recovery efforts (Kusterer, 1990; Watts, 1994; Hu, 2009; Kydd, 2010). This is a central reason why firms demand exclusivity clauses and prefer larger, more monitorable suppliers, as rival buyers can easily free ride on another company's investment in the liberal markets (Barett, 2012; Ton, 2018).

Companies cite frequent noncompliance with grades, pesticide MRL's (minimum residual levels) and traceability protocols for rejecting produce. Companies, however, will admit that when they reject produce, farmers exit or side sell, and this feeds a cycle of mutual distrust (Swinton,2007; Humphrey, 200; Jaffe, 2003; Ton, 2018).

Companies do acknowledge that urgent cash needs (school fees, health expenses) increase default risk at harvest and that cash at the farm gate offers from brokers outcompete contracts with delayed settlement (Bellemare, 2012; Markelova, 2009). Companies, therefore, acknowledge that this necessitates prompt payment systems and real-time mobile money transfers; however, these are costly to implement and scale (Ton, 2018). Companies have also pointed to political interference by way of ad hoc price announcements or distortions and movement restrictions that distort incentives and in effect, nullify contracts (Kydd, 2004; Oya,2012). In 2018, for example, the Government of Tanzania directed that the entire national cashew nut harvest be purchased by the Tanzanian Army and the Board of Mixed Crops, thus rendering all existing contracts null and void (Reuters, 2018).

Companies have also reported that even when they invest in legal remedy costs, courts and local arbitration rarely provide timely remedies, and reputational sanctions on farmers are diluted when many buyers operate in the same zone (Fafchamps, 2004; Oya, 2012; Macchiavello, 2015). Some companies attempt to mitigate this by advocating for shorter contracts and stricter screening of farmers (Poulton, 2010; Barrett, 2012).

In Kenya's highly competitive horticultural sector, companies cite cash at farm gate broker competition, minimum residue limit compliance risks and slow downstream settlements as the core pressures that result in side selling. The literature suggests that most company-side mitigations combine price risk-sharing attempts, faster payments, and targeted upgrading to

suppliers able to meet standards (Ngigi, 2010; Ota, 2002; Macchiavello, 2015).

In summary, company narratives prioritize duty compliance and efficiency and seem to under emphasize relational fairness. The gap is to investigate the moral reasoning of companies' vis a vis that of farmers and test where misalignments can predict breach.

2.2.6 Interventions that can build farmers' ethical conduct in agricultural contracting.

A growing body of scholarship is consistently recommending that farmers face guides that unpack rights, duties, risk-sharing parameters and redress mechanisms before signing contracts. These have also insisted on framing contracts around informed consent, proportionality and timely payments (FAO & IFAD, 2015; FAO,2013; FAO, 2016). The Food and Agriculture Organization (FAO) Legal Guide on Contract Farming and the FAO Model Agreement provide checklists, model clauses, transparent grading, grievance handling, and negotiation frameworks that aim to address power asymmetries. The FAO's Farm Business School also includes modules in checking contracts and negotiation to build deliberation and principled bargaining. An earlier intervention by the FAO, dubbed Farmer Field Schools (FFSs), facilitated joint problem-solving methods that aimed to strengthen ethical reasoning through mock grading and mock dispute resolution sessions. The FFS's also sought to reduce hazardous pesticide use and, in some settings, they sought to raise alternative incomes to make socially responsible choices more feasible (Davis, 2012; Waddington, 2014). GIZ contract manuals have also sought to incorporate structured negotiation exercises and role-plays to help farmers identify their interests, evaluate fairness, and negotiate balanced terms.

Collective action via cooperatives and producer organisations has also been proposed to temper power imbalances during contracting (Njenga, 2023). Evidence shows that well-governed groups improve members' access to information, as well as quality control and certification systems. They also provide forums for debating contracting models, thereby making commitments more credible (Markelova, 2009; Barrett, 2012; Njenga, 2023). Studies also indicate that cooperative membership can raise incomes and participation while enabling group-level internal controls that align behaviour with agreed codes (Qaim, 2012).

When farmers can see and verify delivery, grades, and payments, ethical behavior becomes easier and more credible, according to studies. Two Kenyan deployments demonstrate this. Farmforce, a digital farm management platform used across Kenyan smallholder supply chains, links field agents, aggregators, and exporters through a shared transaction record for plot data,

input use, harvest volumes, and delivery receipts, reducing the chance of unilateral grade or quantity manipulation and boosting farmer confidence in delivery accuracy (Njenga, 2023 Twiga Foods, a Nairobi-based agri-tech company, connects smallholder farmers to urban retailers via a mobile-based ordering and payment system that settles farmers within 24 hours of collection via mobile money, eliminating delayed payment cycles, a primary cause of contract dishonouring (Amare, 2023). Both situations show that digital tools' ethical benefits are concrete: they close trust-eroding informational and relational gaps. The FAO Legal Guide on Contract Farming (FAO & IFAD, 2015) explicitly recommends writing clear escalation pathways - from bilateral negotiation to third-party mediation to formal arbitration - into contract terms rather than leaving them to informal goodwill.

The scholarly literature suggests that; for farmers to conduct themselves ethically, they must be supported by a combination of legal interventions, literacy training, collective action, and digital tools that promote transparency. Can farmers conduct themselves ethically without these? This is the question.

2.3 Theoretical Framework

This study will be anchored in Aristotle's Nicomachean Ethics with particular emphasis on the virtues of justice and prudence. This is the most appropriate framework for analysing ethical decision making in contract farming. The choice of virtue ethics offers a framework capable of explaining how moral judgements are formed and acted upon in lived, relational and uncertain context.

Deontological ethics, most prominently associated with Immanuel Kant, emphasises adherence to duties and rules irrespective of contexts or consequences. While such an approach can provide clarity and predictability, it is limited in its ability to examine moral reasoning in situations where legitimately competing obligations exist. In contexts of, for example, medical emergencies and school fee obligations, moral reasoning cannot be reduced to unconditional rule following. While some farmers might apply a deontological outlook in their contractual dealings, its rigidity limits its explanatory power as a primary framework for this study.

Utilitarian ethics, associated with John Stuart Mill, evaluates actions according to their consequences, especially their contribution to aggregate welfare. Although outcome-oriented reasoning may feature in contract decisions, utilitarianism struggles to account for whose welfare should be prioritised and at what moral cost. As such, utilitarianism risks obscuring

questions of fairness, proportionality and moral responsibility that are central to farmers lived experiences of contracting.

By contrast, virtue ethics focuses not on rules or outcomes alone but on moral character, practical reasoning and pursuit of a good life within concrete social relationships. This emphasizes relationality, situational judgement, communal obligation and moral responsibility embedded in a social life rather than abstract universalism. This emphasis on reciprocity and communal obligation creates a congruence between African moral traditions as illustrated by scholars such as Kwame Gyekye and Henry Odera Oruka with Aristotelean ethics.

Central to Aristotle's framework, is the virtue of justice. Justice is understood as giving each their due in proportionate measure. Aristotle describes justice as "complete virtue in relation to another" because it governs interpersonal dealings and regulates fair distribution of benefits and burdens (Nicomachean Ethics, V1). Applied to contract farming, justice illuminates how farmers assess the fairness of pricing, grading practices, payment timelines and changes in contractual terms. Decisions to honour or dishonour contracts can therefore be understood not merely as economic responses but as moral judgements about whether contractual relationships remain just.

Equally important is the virtue of prudence (*phronesis*) which Aristotle defines as the practical wisdom required to deliberate well about what is good and appropriate in particular circumstances (Nicomachean Ethics, VI.5). Prudence enables agents to navigate uncertainty, risk and competing obligations. For small holder farmers faced with delayed payments, volatile markets or urgent household needs, prudential reasoning may require communicating this to the agribusiness company possibly followed by partial side selling or renegotiation. Virtue ethics allows such actions to be examined as morally reasoned responses rather than dismissed as opportunistic or irrational behaviour.

This framework also enables the examination of ethical misalignments between farmers and agribusiness companies, for example, situations where farmers reason prudentially while companies emphasize a strict rule compliance and how such misalignments can act as predictors of contract compliance or breach.

By adopting Aristotle's *Nicomachean* Ethics as the primary theoretical lens, this study foregrounds moral reasoning as it is practised by actors in contract farming. It therefore provides a coherent and context sensitive framework for understanding how farmers approach

contracts moving beyond reductive economic explanations towards a richer ethical analysis grounded in lived experience.

2.4 Research gap

What is notably absent is the purposeful and sustained application of Aristotle's virtue ethics, particularly the cardinal virtues of Justice and prudence, to contract farming decisions in Africa and Kenya. Also, a simple systematic classification of moral considerations into virtue ethic, deontological and utilitarian categories is also lacking. The political economic tradition has examined power and dependency, modelling incentives and risks. The researcher could not find any scholarly work which has investigated how farmers themselves weigh contracts in terms of distributive justice, practical wisdom (prudence), duty based or outcome-based reasoning parameters on both sides of the exchange. This presents a clear gap. By situating smallholder choices within an ethical framework this study contributes a novel perspective that complements and extends dominant political economy and institutional approaches.

VT OMNES VNVM SINT

Chapter 3: Research Design and Methodology

3.1 Introduction

This chapter describes the overall research design and methodology which was applied to this study. It explains the research approach, study area, sampling design, data collection approach, analytical techniques and the immanent limitations. The purpose of this chapter is to provide a clear outline of collection of relevant data and its analysis to answer the research objectives.

3.2 Research Design Overall Approach

This study adopted a convergent mixed methods design constructed to distinguish between observed behaviour (the "is") and normative reasoning (the "ought"). The design allowed for interaction to be empirically examined. Qualitative and quantitative components were collected, analysed separately and integrated at interpretation using joint displays. Quantitative instruments were used to measure patterns of contract compliance and ethical perceptions while qualitative instruments were used to elicit moral justifications and interpretive reasoning. Together, these instruments enabled the study to analyse how ethical judgements informed contractual behaviour without collapsing normative claims into empirical facts. This design also suited the dual aim of estimating prevalence of contract dishonouring and weighing the ethical parameters prioritized by farmers and agribusiness companies.

Furthermore, to collect the quantitative component, a structured survey (embedded with vignettes) of smallholder avocado farmers in Nkubu and avocado agribusiness companies operating in Nkubu assessed contract status in terms of perceptions of fairness and choices in factorial vignettes that manipulated realistic contract scenarios (Aguinis, 2014; Atzmuller, 2010; Jasso, 2006). It was for purposes of deepening the analysis of ethical reasoning that this study employed factorial vignettes. Each vignette presented a hypothetical but realistic contract farming scenario where conditions of e.g. price fairness, buyer reliability and market fluctuations were systematically varied and contrasted. Respondents rated the likelihood of honouring the contract and were asked to explain their reasoning.

Quantitative responses were analysed using descriptive statistics, cross tabulations and binary logistic regression models in Stata to determine which contextual factors most influenced decisions while qualitative explanations were thematically coded under virtue ethics, deontology or utilitarian categories. Qualitative explanations therefore were collected with semi structured interview questions. These elicited the moral justification and were grouped

into these reflexive thematic categories. Finally, the evidence from surveys, vignette choices and narratives was triangulated to locate farmer–company misalignments in moral frames as predictors of breach or compliance.

3.3 Study Area

Fieldwork was conducted in Nkubu, the main town and administrative headquarters of Imenti South Constituency, Meru County, Kenya. Situated approximately 15 kilometres south of Meru town on the southern slopes of Mount Kenya, Nkubu is an established avocado production hub featuring both direct contracting arrangements between farmers and exporters, and active brokered trade through independent aggregators operating at the farm gate.

3.4 Target Population and Sampling frame

This section describes the target population of the study and the sampling frame from which respondents were selected. It outlines the characteristics of the study population and explains the basis for identifying and accessing the units included in the sample.

3.4.1 Population

The first target population is smallholder avocado farmers in Nkubu who have sold avocados within the last 12 months. According to publicly available records of the Meru County Department of Agriculture (2024), there are approximately 1200 active smallholder avocado farmers in Nkubu involved in commercial sale of avocado fruit.

The second target population is the companies/ aggregators purchasing at farm gate in Nkubu. According to records of the Meru County Department of Agriculture (2024) and the Agriculture and Food Authority (AFA, 2025), approximately 30 agribusiness companies were operational in Nkubu as of 2024, comprising fresh avocado exporters, packhouses, and avocado oil processing companies actively engaged with farmers through formal and informal contracting arrangements.

3.4.2 Sampling frames and procedures

For farmers, a stratified, multistage random sample was drawn from lists compiled by the Meru County Department of agriculture and supplemented by village level listings done by the researcher's company during previous interactions. The applicable strata included contract history, and the primary selling channel of the last season, whether through direct sales to an agribusiness company, a broker or a mix of the two.

For companies and intermediaries purposive sampling was done to target exporters/ packhouses active in Nkubu. Brokers and intermediaries were sampled through nonprobability referrals (snowball technique) with an aim for thematic saturation as opposed to statistical representativeness. Evidence suggests that saturation in relatively homogeneous groups commonly occurs within a few dozen or so interviews: about 15-24 farmer interviews and 12-15 aggregator interviews with adjustment based on ongoing assessment of saturation (Guest, 2006).

3.4.3 Sample size (quantitative survey)

Sample size for estimating a proportion will use Cochran's (1977) formula (95% confidence, 5% margin, $p = .50$ for maximum variance): Applying finite-population correction and +15% for non-response yields targets of ~392–426 for typical farmer-population sizes may be done once N is established.

Cochran's Formula

– This is the initial or unadjusted sample size, it is the sample size needed to estimate a population proportion with a specified confidence level and precision assuming an infinitely large population

Z – The Z value is the number of standard deviations corresponding to the desired confidence level. For example, at a 95% confidence level, z = 1.96

P – is the estimated proportion of the attribute being measured. This represents the expected proportion of the population that has the characteristic of interest (e.g. proportion of farmers who honour contracts). Since this is unknown, p=0.5 will be used as this gives the maximum possible variance and thus the largest most conservative sample size.

1-p – is the complement of p. This represents the proportion of the population that does not have the characteristic (e.g. farmers who dishonour contracts)

e – is the desired level of precision/ margin of error. This is the maximum acceptable difference between the sample estimate and the true population value. Often e=0.05 (5%)

Therefore, If:

i. Confidence level = 95% → Z = 1.96

ii. Margin of error = 5% → e = 0.05

iii. Expected proportion = 50% → p = 0.5

Then:

If total farmer population :

Then, adding 15% to cover non-response or non-willingness to be interviewed:

Then the study targeted about 335 respondents since the total farmer population was confirmed to be 1,200.

3.5 Measurement and Research Instruments

The household survey instrument captures three categories of data

1. Observable contractual behaviour
2. Ethically relevant perceptions
3. Stated moral orientations

Observable behaviour includes contract participation, instances of full delivery, partial delivery, side selling and contractual discontinuation in the last 12 months. These variables establish the descriptive baseline of what farmers would do.

Ethical perceptions were measured separately from behaviour. Perceptions of justice were operationalised through a composite index derived from Likert scale items assessing proportionality between prices, costs and risks; transparency of grading and deductions; and timeliness of payments. Prudence was operationalised through items measuring farmers' assessments of appropriate action under conditions of uncertainty such as payment delays, liquidity shocks and price volatilities. These measures captured evaluative judgements rather than compliance outcomes.

To further probe ethical reasoning under controlled conditions, the survey embedded factorial vignette experiments. Respondents evaluated short scenarios in which contractual attributes such as price changes, payment delays, grading disputes and emergency needs were systematically varied. Respondents indicated the likelihood of honouring the contract versus side selling and provided brief justifications. This design enabled causal identification of how contextual factors interacted with ethical reasoning while maintaining a clear separation

between behavioural intention and moral justification (Jasso, 2006).

Qualitative data were collected through semi-structured interviews with farmers, agribusiness firms and aggregators. These interviews focused on how actors explained and justified contractual behaviour. This included interpretations of fairness, obligation, efficiency and trust. Unlike the quantitative instruments, the interviews were not used to measure prevalence but to explicate moral reasoning processes.

Interview data were analysed deductively using predefined ethical categories of justice and prudence while remaining open to inductive refinement. This approach allowed the study to examine how normative judgements were articulated without assuming their moral validity. Where feasible, interviews were supplemented with anonymised contract document review and limited observation of grading and collection practices to contextualise ethical claims.

This study, therefore, resolved the is–ought problem by analytically separating descriptive behaviour, normative evaluation and ethical justification. It then examined their relationship rather than conflating them. The instruments did not infer moral conclusions from behaviour, nor did they treat ethical claims as empirical facts. Instead, they examined how farmers and companies moved from descriptions of circumstances ("what is") to judgements about appropriate action ("what ought to be done") and how these judgements influenced observed contractual behaviour.

3.6 Reliability and Validity Testing

Instrument development included cognitive interviews with a small number of respondents to assess comprehension, relevance and appropriateness of survey items and vignettes. A field pilot involving 30–40 farmers was then conducted to test survey flow, timing and item performance. Internal consistency of multi-item scales was assessed using Cronbach's alpha while item total correlations and exploratory factor analysis were used to evaluate item coherence and dimensionality prior to full deployment. Respondent friendly formatting and contact protocols followed the tailored design method adapted for in person administration to support response rates and data quality (Dilman, 2014).

3.7 Fieldwork Procedures

Data collection was conducted by data enumerators fluent in Kimeru, Kiswahili and English using hardcopy questionnaires and voice recorders. Sensitive topics such as breach were approached after rapport had been established. The use of vignettes helped mitigate social

desirability pressures that commonly affect reporting on sensitive behaviours (Tourangeau, 2007). The anticipated fieldwork calendar closely followed the 2025 second season harvest and payment windows. This served this study well in reducing recall error and in observing practices that were temporally proximate to decision points.

3.8 Data management

Data were synchronised daily into digitized records. Deidentification was performed at source, and physical files were stored under access control. All procedures complied with the Kenya Data Protection Act of 2019 and relevant guidance from the Institutional Ethics Board and National Commission for Science, Technology and Innovation (NACOSTI).

3.9 Ethical Considerations and Approvals

Ethical approval was sought from the Strathmore University Institutional Scientific and Ethics Review Committee (SU-ISERC) and the National Commission for Science, Technology and Innovation (NACOSTI) prior to fieldwork. Informed consent procedures reflected the Belmont Report's principles of respect for persons, beneficence and justice (National Commission for the Protection of Human Rights Subjects of Biomedical and Behavioural Research, 1979).

Participation in the study was strictly voluntary, and respondents were informed of their right to decline participation or withdraw at any stage without repercussion. Anonymity was ensured by removing personal identifiers from datasets and reporting findings in aggregated form. Privacy and data protection were upheld in accordance with the Data Protection Act of 2019 and particular care was taken to minimise potential risks associated with discussing sensitive contractual experiences.

3.10 Limitations and Mitigation

As a cross-sectional study, causal inference is inherently limited. However, the embedded factorial vignette experiments provided internally valid assessments of how specific contractual attributes and household contingencies can shape moral choices. Self-report and social desirability biases are possible given the sensitivity of admitting breach. These concerns were mitigated through privacy assurances and the mediating roles of the vignettes. Vignettes allowed respondents to reason about hypothetical cases hypothetically. Sampling frame challenges were addressed by supplementing official lists with farm level listings.

3.11 Team and Tools

The research team consisted of a principal investigator and several data collectors. Statistical analysis were conducted in the IBM SPSS Statistics software, and all data was stored in secure repositories consistent with the data protection plan.

3.12 Summary

In summary, this chapter outlines the research design, target populations, sampling procedures, data collection instruments, analysis method and the ethical considerations guiding this study. It has also specified that the qualitative data will be subjected to thematic analysis within ethical theory frameworks. The next chapter presents and discuss the results of the data analysis focussing on patterns of contract honouring and moral reasoning dimensions influencing farmer and agribusiness decisions.

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Chapter 4: Presentation of the Research Findings

4.1 Introduction

This chapter presents the results and findings of the study. It covers the response rate and respondents' background information. Further, it presents the results and offers their explanation as per the research objectives and the study hypothesis. The first objective was to establish the prevalence of avocado farmers who dishonour farming contracts in Nkubu constituency, compared to those who keep them. Second, to establish farmers' perspectives on the dishonouring of farming contracts. Third, to establish agribusinesses' perspectives on the dishonouring of farming contracts. Fourth, propose interventions that can enhance ethical conduct and fairness in the design and implementation of agricultural contracts. For hypotheses, the first hypothesis was Smallholder avocado farmers who perceive contractual arrangements as unjust are more likely to dishonour contract farming agreements. The second hypothesis was farmers' prudential assessments significantly influence decisions to side sell, discontinue or honour contracts and the third one was there a statistically significant difference in ethical reasoning patterns between farmers who honour contracts and those who dishonour them

4.2 Response Rate

Table 4.1 shows the response rate of questionnaire sent to farmers. Results indicate that out of the targeted 335 respondent farmers, only 243 questionnaires were fully answered and collected representing 72.54%. This rate was deemed sufficient for further data analysis and inference making as Sataloff and Vontela (2021) note that a response rate of 40% to 75% is acceptable for surveys.

	Frequency	Percent
Fully filled up	243	72.54
Incomplete/uncollected	92	27.46
Total	335	100.0

Table 4.1. Response Rate

4.3 Background Information of Farmers

This section presents the background characteristics of the farmers who participated in the study. It provides an overview of the key demographic and social economic markers that helped in contextualizing the findings and facilitate a better understanding of the respondents.

4.3.1 Gender of Respondents

The study sought to establish the gender distribution of avocado contract farmers. Table 4.2 indicates that a majority of these farmers were male at 160 (66%) and female were 83 (34%). This indicate that both genders are appreciating the importance of contract farming, though men are double the females, which explains the rural set-up where man is the lead in a family.

		Frequency	Percent
Valid	Male	160	66.0
	Female	83	34.0
	Total	243	100.0

Table 4.2. Gender of Respondents

4.3.2 Membership in Farmer Group/Cooperative

Given the importance of cooperatives in farming in promoting social and economic needs of members, the belonging of contract farmers in a group or cooperative was assessed. Results in Table 4.3 and figure 4.1 show that only 51 (21%) farmers belong to a farmers group or cooperative while 192 (79%) did not. These findings agree with Miroro et al. (2021) who found that membership of smallholder farmers in cooperatives in Kenya was low despite their potential to improve their livelihoods.

		Frequency	Percent
Valid	Yes	51	21
	No	192	79
	Total	243	100.0

Table 4.3. Membership of Farmers

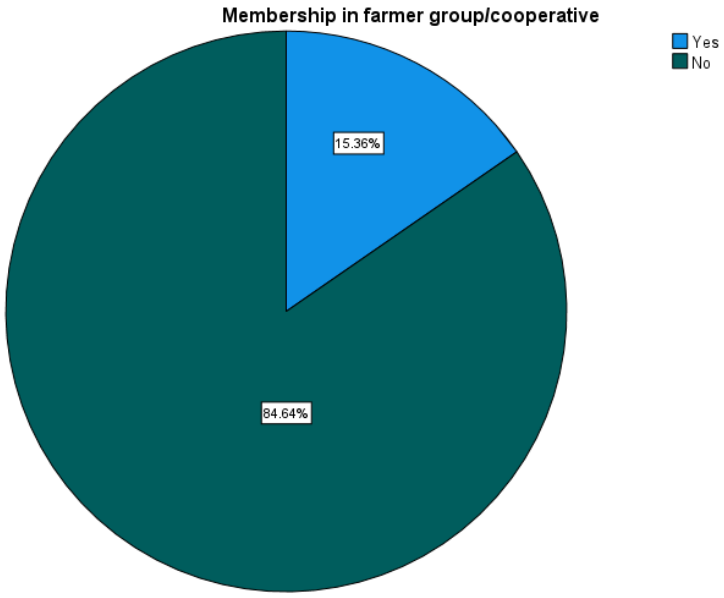

Figure 4.1. Farmers' Membership to Coooperatives/Groups

4.3.3 Age of Farmers

The study sought to establish the age distribution of avocado farmers and results are presented in Table 4.4. It shows that a majority of farmers, 84 (34.6%) were aged between 30 and 41 years followed by those aged 42-53 years, 78 (32.1%). Those aged 54-65 years were 47 (19.3%) with 18-29 years and over 66 years forming 4.1% and 9.9% respectively. These findings support existing studies (Ibitola et al., 2019; Jamilu et al., 2015; Oluwatayo, 2018) from other developing economies which showed that a majority of small-scale farmers were middle-aged with relatively low youth participation.

	Frequency	Percent
18-29 years	10	4.1
30-41 years	84	34.6
42-53 years	78	32.1
54-65 years	47	19.3
Over 66 years	24	9.9
Total	243	100.0

Table 4.4. Age of Farmers

4.3.4. Education Status of Avocado Farmers

The researcher also established the education status of avocado farmers and from Table 4.5, results showed that a majority of them, 100 (41.2%) of them had secondary education followed by 83 (34.2%) with primary education. Further, 49 farmers (20.2%) had college education while 7 (2.9%) and 4 (1.6%) university and no education respectively. The results agree with findings of Kutwa et al. (2016), which found that 53% of smallholder farmers in Kiambu County, Kenya, had completed secondary education; an indication of government's efforts to have all citizens have basic formal education.

	Frequency	Percent
None	4	1.6
Primary	83	34.2
Secondary	100	41.2
College	49	20.2
University	7	2.9
Total	243	100.0

Table 4.5. Education Status of Avocado Farmers

4.3.5. Length of Time in Avocado Farming

The study sought to find out the length of time the avocado farmers have been cultivating these fruits and results are as presented in Table 4.6. Results show that most of the farmers, 162 (66.6%) had been in this business for 9 years and below. Additional results indicated that 64 (26.3%) of farmers had cultivated avocados for 10-14 years while 17 (7%) had 15 and above years.

	Frequency	Percent
2-5 years	80	32.9
6-9 years	82	33.7
10-14 years	64	26.3
15+ years	17	7.0
Total	243	100.0

Table 4.6. Length of Time in Avocado Farming

4.3.6. Avocado Farming Acreage

The study established the land size being cultivated by avocado farmers. Results in Table 4.7 indicate that these farmers are smallholders as a majority, 82 (33.7%) had 1-1.99 acres under

avocado followed by 72 (29.6%) with lower than 1 acre. Further results showed that 24 (9.9%) had 4-5.99 acres and 4 (1.6%) had over 6 acres. The results align with past studies (Gurmis & Melese, 2022; Muita et al., 2025) that smallholder avocado farmers in developing countries including Kenya, have small landholding below 2 hectares.

	Frequency	Percent
Below 1 acres	72	29.6
1-1.99 acres	82	33.7
2-3.99 acres	61	25.1
4-5.99 acres	24	9.9
6 + acres	4	1.6
Total	243	100.0

Table 4.7. Land Size Under Avocado Cultivation

4.3.7 Number of Avocados Grown

From the land size results, Table 4.8 further confirm the small-scale nature of the avocado farming by Farmers in Nkubu. A majority of farmers, 197 (81.1%) had below 50 avocado trees followed by 32 (13.2%) who had 50-99 trees. Those with 100-199 trees were 10 (2.4%) with 4 (1.6%) having over 199 trees.

	Frequency	Percent
Below 50	197	81.1
50-99	32	13.2
100-149	8	3.3
150-199	2	.8
Above 199	4	1.6
Total	243	100.0

Table 4.8. Number of Avocados Grown

4.3.8 Varieties of Avocados Grown

The researcher also sought to establish the varieties of avocados being grown and results are presented in Table 4.9. Overall, the farmers grow three major types of avocados: Hass, Fuerte and the traditional varieties. Results indicated that was singularly planted by the most farmers, 116 (47.7%). It is also observed that Hass with another variety (fuerte or local) were higher as cultivated by 101 (41.6%). Additional results indicate that farmers who cultivated all the three varieties were 16 (6.6%) with 1 (0.4%) having the traditional variety alone. The higher number

of farmers cultivating Hass confirms the study by Munhuweyi et al. (2020) that found that this variety was the most predominant across the world.

	Frequency	Percent
Hass	116	47.7
Fuerte	8	3.3
Local	1	.4
Hass + fuerte	86	35.4
Hass + Local	15	6.2
Fuerte + Local	1	.4
Hass + fuerte + local	16	6.6
Total	243	100.0

Table 4.9. Varieties of Avocados Grown

4.3.9 Main Source of Income

The source of income for the respondents was also sought and the results are in Table 4.10. Results show that 99.6% of these respondents depend on other sources of income other than avocado farming with only 0.4% relying solely on avocados. The highest number, 93 (38.3%) relied on avocado, other crops and livestock for their livelihood. The second highest number of farmers had avocado and other crops, 67 (27.6%). Other economic activities relied upon by these farmers were businesses and employment. With the results predominantly showing that almost all the targeted farmers relied on a number of sources for income supports the notion by smallholder farmers in many African countries where they consider avocado as an alternative crop (Bhore et al., 2021). In addition, these results show diversification through other activities such as other crops, livestock, employment, and businesses in addition to avocados to spread risk and improve incomes.

	Frequency	Percent
Avocado	1	.4
Avocado + Other crops	67	27.6
Avocado + Other crops + Livestock	93	38.3
Avocado + Other crops + Livestock + Business	19	7.8
Avocado + Other crops + Livestock + Business + Salary	1	.4
Avocado + Other crops + Business	14	5.8

	Avocado + Other crops + Salary	1	.4
	Avocado + Livestock	15	6.2
	Avocado + Livestock + Business	7	2.9
	Avocado + Business	18	7.4
	Avocado + Salary	1	.4
	Avocado + Others	1	.4
	Livestock + salary	5	2.1
	Total	243	100.0

Table 4.10. Main Source of Income

4.4. Background of Aggregators

4.4.1 Type of Aggregators

This information was sought to understand the parties engaged as buyers of avocado from farmers in Nkubu. It was established that all buyers are currently aggregators/brokers (10 (100%) and respondents' gender being 80% male and 20% female as indicated in Table 4.11.

	Frequency	Percent
Male	8	80
Female	2	20
Total	10	100.0

Table 4.11. Gender of Aggregator

4.4.2 Use of Contract with Farmers

Results in figure 4.2 shows the use of contract farming by the avocado buyers. It is seen that a majority of respondents, 6 (60%), noted that they always engage farmers on contractual terms. Further results show that 3 (30%) engaged them sometimes, and 1 (10%) said they never engage in contracts.

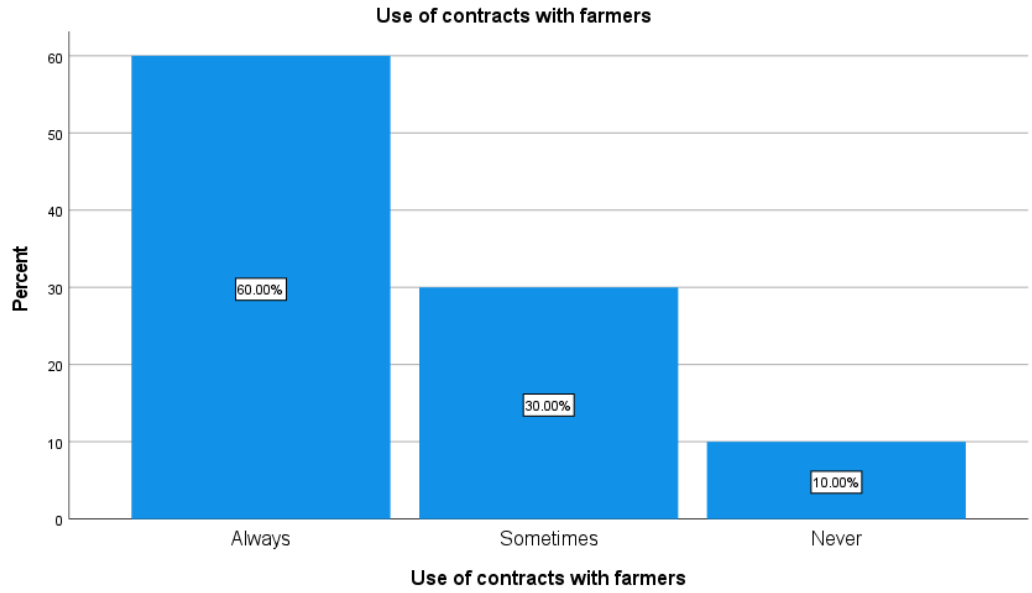

Figure 4.2. Contract Use

4.4.3 Type of Contract

Table 4.12 presents results on the type of contracts that the buyers enter with avocado farmers. It is shown that a majority have verbal agreements, 7 (70%), 3 (30%) have the contracts written down, and 1 (10%) use group contracts, and no contracts in place.

	Frequency	Percentage (%)*
Verbal agreements	7	70.00%
Written individual contracts	3	30.00%
Group contracts	1	10.00%
No contracts	0	0.00%

Note. Response number varying from 10 due to multiple response selection

Table 4.12. Contract Type

4.4.4 Organization Obligation

Table 4.13 presents results on the obligation that avocado buyers under the contract farming have. It is seen that a majority of the buyers commit to timely payment at 80% with only 20% guaranteeing price.

	Frequency	Percentage (%)*
Guaranteed price	2	20.00%
Timely payment	8	80.00%

Table 4.13. Organisation Obligation

4.4.5 Farmers Obligations Under Contract Farming

The research also sought to establish the obligation of farmers under the contract farming arrangements. Results in Table 4.14 show that observing the quality and grade of produce, and delivery schedule were given the first priority at 70% each while exclusive delivery was 20% and the use of specified inputs was 10%.

	Frequency	Percentage (%)
Quality/grade compliance	7	70.00%
Delivery schedule	7	70.00%
Exclusive delivery	2	20.00%
Use of specified inputs	1	10.00%

Note: Response number varying from 10 due to multiple response selection

Table 4.14. Obligations of Farmers

4.5 Prevalence of Avocado Farmers Who Dishonour Farming Contracts in Nkubu Constituency, Compared to Those Who Keep Them

The first objective was to establish the prevalence of avocado farmers who dishonour farming contracts in Nkubu constituency, compared to those who keep them. Overall, results in Table 4.15 show that 160 (65.8%) of farmers honoured farming contracts and delivered as agreed. The rest dishonoured the contract with 72 (29.6%) delivering some and selling some elsewhere and 11 (4.5%) failed to deliver at all.

	Frequency	Percent
Delivered all as agreed	160	65.8
Delivered some, and sold some elsewhere	72	29.6
Did not deliver at all	11	4.5
Total	243	100.0

Table 4.15. Contract compliance

Table 4.16 further shows farmers' experience with the buyers with results showing that there is substantial contract compliance on the part of the buyers as a majority never rejected the produce (80.10%), never delayed collection (80.60%) and never delayed payment (81.70%).

Response	Frequency	Percentage
Rejected Fruit		
Yes	38	19.90%
No	153	80.10%
	Frequency	Percentage
Delay Collection		
Yes	37	19.40%
No	154	80.60%
Delay Payment		
Yes	35	18.30%
No	156	81.70%

Note. Response number varying from 243 due to non- response by 52 farmers

Table 4.16. Farmers' Experience in Contract Farming

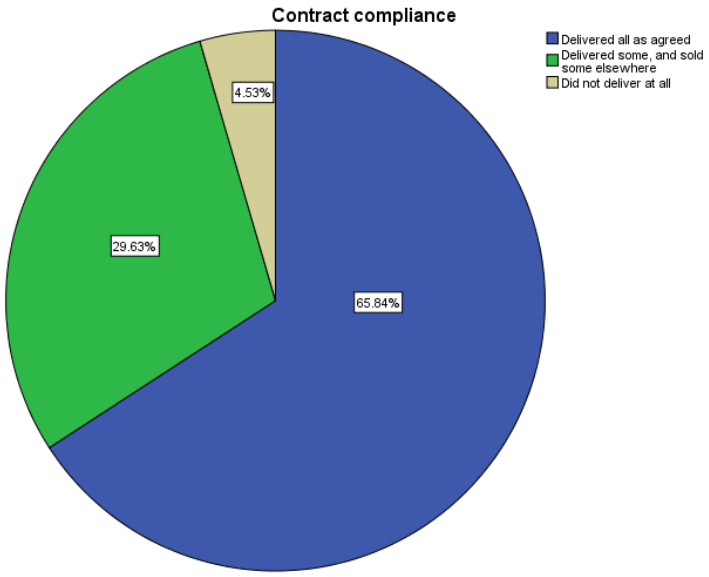

Figure 4.3. Compliance with Contract

4.6 Dishonouring Farming Contracts

The second objective was to establish farmers' perspectives on the dishonouring of farming contracts and results are as shown in Table 4.17. It is observed that many avocado farmers, 48 (20.3%) dishonoured the contract when the buyer delayed collection. Additional results showed that 41 (17.4%) considered better prices elsewhere, 34 (14.4%) felt grading and rejections were unfair and 32 (13.6%) cited delayed payments. Additionally, the failure of the buyer, 24 (10.2%), emergency need for cash, 23 (9.7%), change of terms by the buyer, 19 (8.1%), and unexplained deductions, 8 (3.4%) as grounds for dishonouring contracts.

Reason	Frequency	Percent (%)
Buyer delayed collection	48	20.3
Better price elsewhere	41	17.4
Grading/rejections felt unfair	34	14.4
Buyer delayed payment	32	13.6
Buyer did not keep promises	24	10.2
Emergency need for cash	23	9.7
Buyer changed terms	19	8.1
Deductions not explained	8	3.4
Broker paid cash at farm gate	7	3
Total	**236**	**100**

Note: Response number varying from 236 due to non- response by some farmers

Table 4.17. Reasons for Dishonouring Farming Contracts

4.7. Agribusinesses' Perspectives on Dishonouring of Farming Contracts

The third objective sought to establish agribusinesses' perspectives on the dishonouring of farming contracts. The most common forms of non-compliance are as presented in Table 4.18. The withdrawal from the contract mid-season was leading at 6 (33.3%), sideling and partial delivery followed at 5 (27.8%) each and quality non-compliance at 2 (11.1%).

Form of non-compliance	Frequency	Percent (%)
Withdrawal mid-season	6	33.3
Side selling	5	27.8
Partial delivery	5	27.8
Quality non-compliance	2	11.1
Total	18	100

Note: Response number varying from 10 due to multiple response

Table 4.18. Forms of non-compliance most often observed

As shown in Table 4.19, the study sought to established the frequency of side-selling of avocados. It is seen that the buyers considered side-selling a common phenomenon at 40% while those who considered it a very common, rare and very rare practice tied at 20%. Table 4.20 results indicate the cases when side-selling is most likely to arise. Rise in the prices and payments delay were the cited reasons at 60% and 40% respectively. In event of con-compliance by farmers, the main actions taken by buyers were reduction in future engagement (60%) and failing to take any action (40%). Table 4.21 shows the volume of avocado side-sold as a percentage of the contracted amount. The farmers who said they side-sell, a majority, 28 (40.60%) could sell 76% to 100% of all their produce. Overall, 65.20% of farmers could side-sell over 50% of their contracted produce.

Response	Frequency	Percent (%)	
Common		4	40
Very common		2	20
Rare		2	20
Very rare		2	20
Total		**10**	**100**

Table 4.19. Prevalence of Side-selling in Nkubu

Timing	Frequency	Percent (%)	
When prices rise		9	60
When payments delay		6	40
After grading disputes		0	0
At harvest peak		0	0
Total responses		15	100

Note: Response number varying from 10 due to multiple response

Table 4.20. When Side Selling is Most Likely to Occur

Volume	Frequency	Percentage
1-25%	8	11.60%
26-50%	16	23.20%
51-75%	17	24.60%
76-100%	28	40.60%
Total	69	100%

Table 4.21. Percentage Volume Side-sold

Response	Frequency	Percent (%)
Reduced future engagement	6	60
No action	4	40
Warning	0	0
Termination of relationship	0	0
Legal action	0	0
Total	10	100

Table 4.22. Usual Response to Farmer Non-Compliance

4.8 Farmers' Socioeconomic Background and Contract Compliance

Therefore, although not forming part of the main research objective, this study sought to assess the effect of farmers' socioeconomic background that include age, education level, household size, main source of income, land size, number of avocado trees, avocado varieties, years in farming on the contract compliance decisions. The study adopted the ordinal logistic regression model and results are as presented in Table 4.23.

The model fitness test is presented in Table 4.23. Both the Cox and Snell R Square and the Nagelkerke R Square values of 0.57 and 0.627 indicate that the combined socioeconomic variables substantially explained contract compliance. The test was done under 5% significance level and it is observed that education, land size number of trees and land size had, in overall, significant effect on contract compliance, sig. < 0.05. However, gender, farming experience, age and the avocado varieties were not significant predictors of contract compliance by smallholder avocado farmers in Nkubu.

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	95.883[a]	.570	.627

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Table 4.23. Model Summary

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		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Threshold	[Compliance = 1.00]	15.646	2.155	52.727	1	.000	11.423	19.870
Location	[Gender=1.00]	.564	.341	2.731	1	.098	-.105	1.233
	[Gender=2.00]	0[a]	.	.	0	.	.	.
	[Age=1.00]	-.461	.914	.254	1	.614	-2.252	1.330
	[Age=2.00]	.140	.615	.052	1	.820	-1.065	1.345
	[Age=3.00]	.419	.617	.462	1	.497	-.790	1.629
	[Age=4.00]	-.054	.659	.007	1	.935	-1.346	1.239
	[Age=5.00]	0[a]	.	.	0	.	.	.
	[Education=1.00]	-2.109	1.756	1.442	1	.030	-5.550	1.333
	[Education=2.00]	-1.985	1.125	3.115	1	.008	-4.190	.219
	[Education=3.00]	-1.741	1.108	2.472	1	.016	-3.912	.429
	[Education=4.00]	-2.164	1.132	3.653	1	.006	-4.383	.055
	[Education=5.00]	0[a]	.	.	0	.	.	.
	[Income=1.00]	-18.283	9673.264	.000	1	.008	-18977.532	18940.966
	[Income=2.00]	-.818	1.056	.600	1	.038	-2.888	1.252
	[Income=3.00]	-.744	1.038	.513	1	.024	-2.779	1.291
	[Income=4.00]	-.267	1.169	.052	1	.020	-2.558	2.025
	[Income=5.00]	-18.246	9673.264	.000	1	.008	-18977.496	18941.003
	[Income=7.00]	-.421	1.160	.132	1	.017	-2.695	1.853
	[Income=8.00]	-19.615	9673.264	.000	1	.008	-18978.864	18939.635
	[Income=9.00]	.420	1.171	.128	1	.020	-1.875	2.714
	[Income=10.00]	.715	1.398	.261	1	.009	-2.025	3.454
	[Income=11.00]	-.928	1.173	.625	1	.029	-3.227	1.371
	[Income=12.00]	-18.101	9673.264	.000	1	.009	-18977.350	18941.148
	[Income=13.00]	1.946	13680.061	.000	1	0.000	-26810.481	26814.374
	[Income=14.00]	0[a]	.	.	0	.	.	.
	[Trees=1.00]	-1.312	1.428	.845	1	.058	-4.110	1.486
	[Trees=2.00]	-1.908	1.498	1.622	1	.003	-4.844	1.029
	[Trees=3.00]	-1.663	1.604	1.075	1	.000	-4.807	1.481
	[Trees=4.00]	-20.835	9673.264	.000	1	.008	-18980.084	18938.415
	[Trees=5.00]	0[a]	.	.	0	.	.	.
	[Varieties=1.00]	.059	.623	.009	1	.925	-1.163	1.280
	[Varieties=2.00]	-.279	1.100	.065	1	.799	-2.435	1.876
	[Varieties=3.00]	-16.721	9673.264	.000	1	.999	-18975.970	18942.528
	[Varieties=4.00]	.156	.632	.061	1	.805	-1.083	1.395
	[Varieties=5.00]	-.557	.857	.423	1	.515	-2.236	1.122
	[Varieties=6.00]	-17.231	9673.264	.000	1	.999	-18976.481	18942.018
	[Varieties=7.00]	0[a]	.	.	0	.	.	.
	[Length=1.00]	.506	.817	.383	1	.536	-1.095	2.107
	[Length=2.00]	.848	.812	1.090	1	.297	-.744	2.441
	[Length=3.00]	.509	.795	.410	1	.522	-1.050	2.068
	[Length=4.00]	0[a]	.	.	0	.	.	.
	[Land=1.00]	17.546	.639	754.382	1	.000	16.294	18.799
	[Land=2.00]	17.885	.643	774.564	1	.000	16.626	19.145
	[Land=3.00]	17.659	.636	770.149	1	.000	16.412	18.906
	[Land=4.00]	17.544	.000	.	1	.	17.544	17.544
	[Land=5.00]	0[a]	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Table 4.24. Parameter Estimates

Table 4.25 indicates that a higher number of farmers across all education levels except the university complied with the farming contract. Farmers who had no education had the highest compliance rate at 75%, followed by college level at 69.4%, then primary at 68.7% while university had 42.9%. Results on the main source of income indicate that where farmers relied solely on avocado, then they complied with the farming contract and also in some instances where they had diversified the sources, indicating that they depended on other streams enabling them to comply. Where farmers did not consider avocado as the main source of income such as the case of livestock and salary, then compliance was low, 40%. On the number of avocado trees, the 2 farmers with 150-199 trees complied fully followed by those with 50-99 trees, 75%. Of the four farmers with over 199 trees, only one (25%) complied. Across all land size categories, a majority of farmers complied with the contract, posting over 62% with those having six and above acres being fully compliant.

Level of Education			
None	4	3 (75.0%)	1 (25.0%)
Primary	83	57 (68.7%)	26 (31.3%)
Secondary	100	64 (64.0%)	36 (36.0%)
College	49	34 (69.4%)	15 (30.6%)
University	7	3 (42.9%)	4 (57.1%)
Main Income Source			
Avocado only	1	1 (100.0%)	0 (0.0%)
Avocado + other crops	67	47 (70.1%)	20 (29.9%)
Avocado + crops + livestock	93	65 (69.9%)	28 (30.1%)
Avocado + crops + livestock + business	19	11 (57.9%)	8 (42.1%)
Avocado + crops + livestock + business + salary	1	1 (100.0%)	0 (0.0%)
Avocado + crops + salary	1	1 (100.0%)	0 (0.0%)
Avocado + crops + business	14	8 (57.1%)	6 (42.9%)
Avocado + livestock	15	7 (46.7%)	8 (53.3%)
Avocado + livestock + business	7	4 (57.1%)	3 (42.9%)
Avocado + business	18	12 (66.7%)	6 (33.3%)
Avocado + salary	1	1 (100.0%)	0 (0.0%)
Avocado + others	1	1 (100.0%)	0 (0.0%)

Livestock + salary	5	2 (40.0%)	3 (60.0%)
Avocado Trees			
Below 50 trees	197	129 (65.5%)	68 (34.5%)
50–99 trees	32	24 (75.0%)	8 (25.0%)
100–149 trees	8	5 (62.5%)	3 (37.5%)
150–199 trees	2	2 (100.0%)	0 (0.0%)
Above 199 trees	4	1 (25.0%)	3 (75.0%)
Land Size			
Below 1 acre	72	49 (68.1%)	23 (31.9%)
1–1.99 acres	82	53 (64.6%)	29 (35.4%)
2–3.99 acres	61	38 (62.3%)	23 (37.7%)
4–5.99 acres	24	17 (70.8%)	7 (29.2%)
6+ acres	4	4 (100.0%)	0 (0.0%)

Table 4.25. Distribution of the Significant Farmers' Characteristics

4.9 Farmers' Prudence

Factorial vignettes responses were used to assess respondents' prudence and capture farmers' reasoning in ethically ambiguous scenarios. The assessment was done in a scale of 0-10. The view that the buyer was fair scored the highest mean score of 5.85 followed by a payment delay when there was no emergency at 5.71. when payment is deployed in the presence of emergency had a score of 4.2, change of terms had 3.16 and unfair grading had 2.2 points.

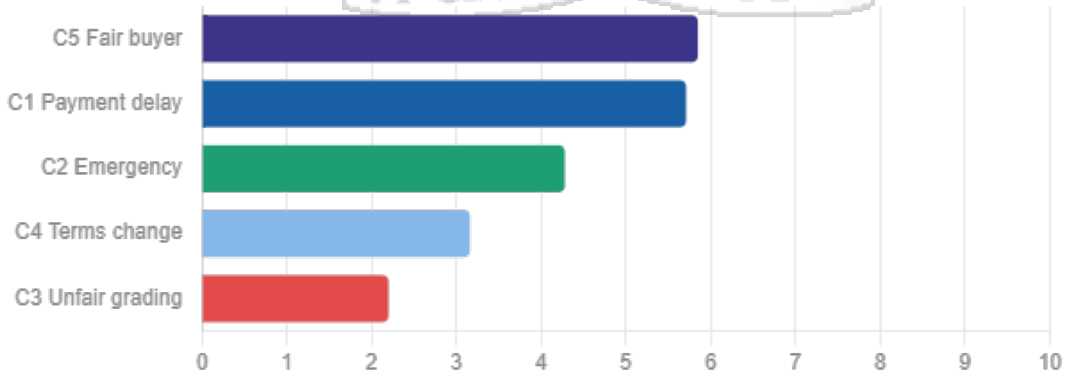

Figure 4.4. Factorial vignette

4.10. Perceived Justice in Contractual Arrangements Likelihood to Dishonour Contract Farming Agreements

Additionally, the study was guided by a number of hypotheses. First, *H1: Smallholder avocado farmers who perceive contractual arrangements as unjust are more likely to dishonour contract farming agreements*. To conduct this hypothesis, the ordinal logistic regression was used. The model diagnostic was conducted and outputs are as represented in the model fitting information, goodness – of- fit, and Pseudo R-Square as shown in Table 4.26.

The intercept only results indicate the effect of the model without predictors and the value is 187.141, which changes to 157.489 when justice is included in the model. Therefore, with X^2, = 29.652, df = 1 and sig = 0.000, it follows that the perceived justice had a significant effect on the contract compliance. Further, the goodness-of-fit was used to assess whether the model fitted data well. While the Pearson test indicated a small misfit (X^2 = 96.115, df = 73 and sig = 0.036 < 0.05), the deviance measure showed an acceptable fit (X^2 = 92.452, df = 73 and sig = 0.062 > 0.05). Further, using Pseudo R-square, results show Cox & Snell is 0.115 and Nagelkerke 0.146, meaning that the present of justice explained 11.5% - 14.6% of variance in the farmers' honouring or breaking of contracts.

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	187.141			
Final	157.489	29.652	1	.000

Goodness-of-Fit			
	Chi-Square	df	Sig.
Pearson	96.115	73	.036
Deviance	92.452	73	.062

Pseudo R-Square	
Cox and Snell	.115
Nagelkerke	.146
McFadden	.079

Link function: Logit.

Table 4.26. Model diagnostics

Results in Table 4.27 indicate that β = -1.205 and p < 0.001, implying that the perceived justice in contract farming significantly lowers the likelihood of dishonour. In other words, for every one unit rise in the justice index, the likelihood of falling into dishonouring contract reduced

by 1.205 units and from entering the worse category of dishonouring contract decreased by around 75%. Further, the confidence interval values [LCI = -1.663 and UCI = -0.748] are non-zeros, showing strong effect.

						95% Confidence Interval	
		Estimate	Std. Error	Wald	df	Sig.	Lower Bound	Upper Bound
Threshold	[CB1 = 1.00]	-3.948	.886	19.864	1	.000	-5.684	-2.212
	[CB1 = 2.00]	-1.381	.876	2.484	1	.115	-3.099	.337
Location	Justice	-1.205	.233	26.672	1	.000	-1.663	-.748

Link function: Logit.

Table 4.27. Parameter Estimates

4.11 Farmers' Prudential Assessments and Decisions to Side Sell, Discontinue or Honour Contracts

The second hypothesis was; *H2: Farmers' prudential assessments significantly influence decisions to side sell, discontinue or honour contracts.* Results in Table 4.28 show the fitness of the model used to predict the effect of farmer's prudential assessments on their decisions to honour, side sell or dishonour contracts. Overall, the inclusion of the prudential assessment as a predictor in the model significantly improves the model (X^2 = 30.771, df = 1, and sig. = 0.000). Further results show that the model explained 12% - 15% of the outcome.

Model Fitting Information				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	119.660			
Final	88.889	30.771	1	.000

Goodness-of-Fit			
	Chi-Square	df	Sig.
Pearson	42.319	25	.017

Deviance	43.907	25	.011

Pseudo R-Square	
Cox and Snell	.119
Nagelkerke	.151
McFadden	.082

Link function: Logit.

Table 4.28. Model Diagnostics

Results in Table 4.29 show β = -1.595 and p = 0.000, implying that the more a prudent farmer becomes, the more likelihood of honouring the contracts. When prudence increases by one unit, the likelihood of dishonouring the farming contract decreases by 1.595 units.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[CB1 = 1.00]	-5.918	1.235	22.948	1	.000	-8.340	-3.497
	[CB1 = 2.00]	-3.361	1.216	7.640	1	.006	-5.745	-.978
Location	Prudence	-1.595	.303	27.749	1	.000	-2.188	-1.001

Link function: Logit.

Table 4.29. Farmers' prudential assessments and decisions to side sell, discontinue or honour contracts

4.12 Difference in Ethical Reasoning Patterns Between Farmers Who Honour Contracts and Those Who Dishonour Them

The third hypothesis was: *H3: There is a statistically significant difference in ethical reasoning patters between farmers who honour contracts and those who dishonour them.* In testing this hypothesis, the data type was considered. For the independent variable, it was categorical as two groups of farmers were considered as far as contract compliance is considered: honouring versus dishonouring. Second, the dependent variable was continuous as a composite of ethical reasoning was computed from the Likert responses. Therefore, as Gerald (2028) notes, independent t-test was adopted as it is applicable in compare means of two unrelated groups

(farmers honouring and farmers dishonouring contract) on the same outcome variable (ethical reasoning).

The descriptive statistics show that the mean of contract compliance of farmers who honour and those who dishonour was 3.786 and 3.544 with their standard deviations 0.602 and 0.480 respectively, as shown in Table 4.30.

	Contract honouring	N	Mean	Std. Deviation	Std. Error Mean
Moral	Honour	148	3.7860	.60207	.04949
	Dishonour	76	3.5439	.47991	.05505

Table 4.30. Group Statistics Results

Looking at the Levene's test for equal variances in Table 31, F –statistics results is 10.29 and p = 0. 002 < 0.05. Therefore, the null of Levene's test is rejected and a conclusion is made that the variance in contract compliance of farmers who honour the farming contracts is significantly different from that of those dishonour the contracts. Therefore, there is a significant difference between the two groups of farmers (t = 3.27, p = 0.001 < 0.05), which those honouring the contract having higher moral reasoning than those who dishonour contracts.

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		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Moral	Equal variances assumed	10.290	.002	3.044	222	.003	.2422	.0796	.0854	.399
	Equal variances not assumed			3.272	183.926	.001	.2422	.0740	.0961	.388

Table 4.31. Independent Samples Test

4.13 Qualitative Analysis

This qualitative analysis presents and represents the views, experiences and opinions of respondents regarding the study topic. Data obtained from open ended questions were analysed to identify key patterns and insights that complement the quantitative findings. The results are presented according to the objectives of the study.

4.13.1 Prevalence of Avocado Farmers Dishonouring the Contract

The first objective aimed at establishing the prevalence of avocado farmers dishonouring the contract. A majority of farmers reported they honoured the contract by fully delivering as per the contract. However, there were others who dishonoured by partly delivering and partly side-selling or not delivering at all and selling to other buyers. These results are supported by aggregators' responses that contract dishonouring was a common phenomenon they faced. These findings support the results by Hambloch (2021) and Tuyen et al. (2022) that side-selling and other violations in contract farming were common and threatens its success.

4.13.2 Farmers' Reasons for Dishonouring Farming Contracts

The second objective sought to find out the reasons farmers had for dishonouring contracts. They issued a number of grounds for not delivering fully to buyers/ aggregators. A majority of farmers noted price issue followed by buyer delay in collection then grading problems. Other reasons included delayed payments, emergency at home, and brokers offered cash. Indeed, the results align with studies by Ruml and Qaim (2020), Tuyen et al. (2022), and Umar et al. (2025) who noted that poor pricing and presence of other traders who pay more than the contract price, and late payments were major drivers of farmers' dissatisfaction with contract farming, thereby increasing breach and dropout. On price decisions, farmers reported that the common approaches were brokers deciding the prices, engaging in negotiation, buyers coming with prices or adopting the prevailing market rates. Further reporting was that farmers and cooperatives rarely influenced the prices. These results agree with studies (Minot, 2011; Bijman, 2008) that in contract farming, prices are usually set by the buying firm or specified in advance with farmers choosing to contract or not, though sometimes premiums are offered for quality and sustainability.

4.13.3 Aggregators' Perspectives on Dishonouring Farming Contracts

The third objective sought to establish the reasons given by the buyers/aggregators for dishonouring the farming contracts. They reported side-selling and partial delivery as the main forms of non-compliance by farmers followed by quality compliance issues and withdrawal mid-season.

Failing to observe the needed quality specifications such as grading and dry matter content make buyers to dishonour the contract leading to rejection of the produce or underpayment, thus, effectively evading price commitments. However, there are cases where the aggregators manipulate quality measurements to reduce the effective price (Nguyen et al., 2019).

The buying company also dishonour contracts due to logistical issues such as limited transport and storage capacity, making them breach delivery and scheduling terms and miss the agreed collection times, with losses shifted to farmers (Nguyen et al., 2029; Tuyen eta al., 2022).

4.13.4 Proposed Measures to Enhance Ethical Conduct and Fairness in the Design and Implementation of Agricultural Contracts

The fourth objective was to propose measures that would enhance ethical conduct and fairness in the design and implementation of agricultural contracts. Therefore, the farmers were asked to propose changes they thought would make the contracts fairer and easier to honour. A majority of them supported changes to the contract terms to have them written. There was also the need to have clear pricing model, faster payment, digital weighing and transparent grading. Others proposed having complaint hotline and mediation clause. The farmers were further asked to propose five items they would include in the design of a contract given powers to do so. A majority of them reported pricing, payment terms, grading, harvesting and collection, and written terms. For instance, Farmer 1 reported "fair price, written terms, advance, provision of farm inputs, transparent grading", Farmer 2, "*paying on time, paying well, proper grading, harvesting time, Procedure to follow if buyer fails*", and Farmer 3, "*written terms, fair price, faster payments, digital weighing, advances*". Price, payment and written terms were dominantly suggested and could be traced to the challenges with the export markets such as when the export prices fall, then the aggregators delay purchase or refuse delivery, forcing farmers to sell at lower prices or side-sell (Nguyen et al., 2019; Tuyen et al., 2022).

Similarly, aggregators were asked to propose interventions they thought would improve contract farming engagements. A majority of the buyers proposed changes to the payment system to a faster one as a measure to lower contract breach. Indeed, when asked one change

that they would personally prioritise, one aggregator reported "*payment on time by the company*". Other measures highly proposed included having clearer contracts, engaging in joint grading, having digital traceability and mediation mechanisms. Additionally, a high number of aggregators were of the view that a contract clause that allows limited flexibility during emergencies should be enacted.

Chapter 5: Discussion

5.1 Introduction

This dissertation examined how ethical considerations influence smallholder avocado farmers' decisions to honour or dishonour contract farming agreements. Contract farming is becoming more popular due to recent changes in agriculture and food systems that make it harder to satisfy customer needs using more conventional, open market-based procurement methods. The current study focused on smallholder avocado farmers and agribusiness actors operating within Nkubu, Imenti South Constituency. This discussion chapter presents an interpretation of the empirical findings for the study. It first presents a summary of the findings, followed by an in-depth analysis, aligned with the study objectives as revisited below:

i. To establish the prevalence of contract dishonouring among smallholder avocado farmers in Nkubu, Imenti South Constituency.
ii. To assess farmers' perspectives on the dishonouring of farming contracts.
iii. To examine agribusiness or aggregator perspectives on the dishonouring of farming contracts.
iv. To identify interventions for enhancing ethical conduct and fairness in contract farming.

5.2 Summary of the Findings

The results presented in the preceding chapter show that most farmers honor contracts (65.8%), but there are some who do not, while others engage in partial compliance. Full default was relatively low (at below 5%), which shows that it is not easy for the farmers to exit contracts fully. The findings also show that the most common triggers of contract dishonoring were buyer-related failures, such as delayed collection and delayed payments. Other reasons, as indicated in the qualitative data, include market incentives such as better prices by other buyers. Farmers reported that lack of transparency and unfair grading practices were other reasons for their dissatisfaction. When there is perceived justice in the contractual arrangements, it helps to reduce the likelihood of dishonoring. The study also found that farmers' prudential reasoning affects compliance. Thus, some avocado farmers dishonor contracts as a conditional response to structural constraints, not opportunism.

5.3 Discussions

5.3.1 Prevalence of Contract Dishonoring among Avocado Farmers

From the findings, contract compliance in Nkubu was the predominant pattern, with 65.8% of farmers reporting full adherence to agreed terms. Yet this majority figure conceals a more

textured reality. A substantial 29.6% engaged in partial compliance through side selling, and 4.5% defaulted entirely. These numbers show that Nkubu contract farmers participate selectively and conditionally rather than rejecting deals. Farmers adapt their compliance to the contractual relationship. Singh (2002) found similar trends elsewhere, where farmers keep key responsibilities while transferring produce to customers with better terms, reflecting market adaptability rather than contract failure.

The prevalence of verbal agreements sharpens the ethical significance of these findings. Seventy percent of farmers in this study operated on verbal contracts, with only 30% holding written agreements. A verbal contract relies on both parties' honesty and reputation; there is no document to enforce, clause to invoke, or written record of what was agreed. This makes farmers vulnerable, according to Kagwiria and Gichuki (2017), while FAO (2012) and Davis et al. (2012) propose written agreements as the baseline protection for both parties. That cooperation stays high under verbal arrangements is ethically relevant. It shows moral commitment, not legal enforceability, dominates these interactions. That bond holds because of character. Sometimes nothing structural holds it when it breaks.

The primary triggers of dishonouring were buyer related: delayed collection, delayed payment, opaque grading, and unilateral changes in terms ranked above better prices elsewhere as reasons farmers gave for non-compliance. Morally, this ordering is important. It suggests that the majority of farmers did not start out as opportunists. A perceived lack of reciprocity on the buyer's end usually preceded a breach. According to Davis et al. (2012), even in situations when contract farming yields quantifiable cash gains, farmers may nevertheless be extremely unhappy if they believe the arrangement is unjust or untrustworthy. This is further supported by FAO (2012), which points out that contractual relationships suffer when duties are not consistently carried out. Farmers in Nkubu seem to be making a moral decision rather than just an economic one: the farmer's sense of loyalty diminishes in proportion to the buyer's failure to give him his due. This is the Aristotelian logic of justice at work at the farm gate.

The durability of participation, even among those who partially dishonour, is equally revealing. Total default was rare because contract farming continues to offer tangible advantages: lower transaction costs, access to inputs, and more reliable market outlets (Barrette et al., 2012; Bellemare, 2012). Ton (2018) finds that contracted smallholder farmers have more income stability than spot market farmers. Farmers seem to evaluate structural benefits against grievances and withdraw partially. Kimbi et al. (2024) calls this informal renegotiation, a

pragmatic recalibration of engagement that sustains the connection while expressing discontent. From an ethical perspective, farmers' preference for the contractual relationship even when violated shows a residual commitment to contracting.

What emerges from these findings, taken as a whole, is that compliance in Nkubu is neither purely economic nor purely moral in its motivation. It is relational. Farmers honour contracts when they experience the relationship as fair, reliable, and reciprocal, and they modify their compliance when they do not. Oya (2012) and FAO (2012) remark that contracting relationship integrity is more important than formal terms in determining its longevity. This study supports and expands that conclusion: Since the relationship is moral, the interventions to strengthen it must be moral, addressing both contract structure and contracting parties' dispositions.

An ethical concern arises from the findings. Verbal contracts can show mutual faith that the relationship itself guarantees performance and that writing it down would imply mistrust rather than wisdom. Some farmers in this survey described their buyer relationships as long-term, intimate relationships. Verbal contracts can also preserve ambiguity that each side can exploit when breach is desirable. A farmer without a written agreement can renegotiate at harvest if a broker offers more. Buyers without grading criteria can arbitrarily apply standards without responsibility. Thus, verbal agreements are not proof of trust. It could indicate trust or an underlying preference for flexibility, with differing ethical implications.

The analysis of sociodemographic data show that Nkubu avocado growers' contract compliance was linked to socioeconomic factors. Lower and middle-educated farmers had higher compliance rates than university-educated farmers, suggesting that contract behavior may not improve with formal education. In contract farming research, better-educated farmers had greater market awareness and other marketing possibilities, increasing the possibility of side-selling when contract terms were unfavorable (Bellemare, 2012; Ton, 2018). Avocado farmers were more compliant, showing that dependency on the avocado value chain may enhance contractual connections. Farmers that relied on livestock or hired income were less compliant, probably because avocado contracts were less important. Mixed patterns were seen in tree numbers and land size. Moderate farmers, especially those with 50–99 trees, had strong compliance, whereas those with more than 199 trees had low compliance. Larger farmers may have more bargaining power, buyer networks, and ability to switch markets in response to price incentives, as described in African contract farming literature (Oya, 2012; Kagwiria, 2017). However, the high compliance rates across most land categories support the idea that

smallholders' contractual behavior is influenced by economic capability, relational trust, perceived justice, and long-term market expectations.

5.3.2 Farmers' Perspectives on Contract Dishonouring

Watts (1994) observed that contract farming's success depends as much on how agreements are lived out in practice as on what they formally stipulate. This study's findings bear that out directly. The most common triggers of contract dishonouring among farmers in Nkubu were buyer-related failures: delayed collection, delayed payment, unjust grading, produce rejection, and unilateral changes in contract terms. Better prices offered elsewhere ranked below these relational failures. Emergency cash needs ranked lower still. The ordering is morally significant. It indicates that most farmers did not approach their contracts with opportunistic intent. Breach followed perceived failure on the buyer's side, not a prior calculation to exploit a better offer. Contract dishonouring, on this reading, is less a market decision than a moral response to a relationship that has stopped being fair.

This interpretation is consistent with what Aristotle means by commutative justice: the expectation that exchanges between parties will be proportionate and reciprocal, that each will give what was agreed and receive what was promised. When buyers delayed collection, they did not merely inconvenience farmers; they damaged produce quality, reduced market value, and signalled unreliability. When payment was withheld, farmers experienced not only a cash flow problem but a breach of the basic compact that made the contract worth entering. Kagwiria (2020) finds that contract farming produces better outcomes when farmers have sufficient negotiating leverage and when contractual obligations are carried out equitably. Where these conditions are absent, compliance becomes contingent rather than assured. The farmers in this study appear to have been tracking the fairness of the relationship continuously, and adjusting their compliance accordingly.

Previous empirical work supports this reading. Shepherd (2001) and Simmons (2002) both found that farmers tended to regard dishonouring as a proportionate response to harsh or unfulfilled contractual terms rather than as recklessness. Oya (2012) documents that farmer default frequently follows buyer non-performance, with breach framed by farmers as a legitimate household stability measure rather than an ethical failing. What is notable about the Nkubu findings is that this pattern holds even where farmers are aware that side-selling carries reputational and relational costs. The willingness to absorb those costs rather than continue

absorbing buyer failures suggests that the threshold of injustice, once crossed, overrides the prudential calculation to stay compliant.

Price incentives from competing buyers were present but secondary. Singh (2002) identifies better spot prices as the primary driver of side-selling in many contract farming contexts, but this study's data do not support that primacy here. Bellemare (2012) offers the more nuanced account that contract parameters, particularly grading fairness and pricing transparency, shape behaviour more powerfully than price differentials alone. Procedural justice matters alongside distributive justice: it is not only whether the price is fair but whether the process of arriving at it, and enforcing it, is transparent and consistent. Unfair grading was among the most frequently cited grievances in Nkubu, which confirms that farmers were evaluating the integrity of the process, not only the outcome.

Ngigi (2010) documents the role of liquidity constraints in situations where immediate cash needs override contractual fidelity, and emergency financial pressures were present in this study's data. Their comparatively lower ranking, however, suggests that financial urgency operates alongside relational grievance rather than independently of it. Farmers do not appear to assess their contracts purely on anticipated returns. They assess them on whether the other party is behaving with honesty, consistency, and good faith. Where those qualities are present, farmers tolerate short-term economic disadvantage to maintain the relationship. Where they are absent, economic alternatives become more attractive not because the price gap widened but because the moral basis of the relationship has already eroded. This is the picture that virtue ethics, and specifically the virtue of justice, is equipped to explain, and that purely economic frameworks consistently miss.

5.3.3 Agribusiness Perspectives on Contract Dishonouring

In this study, agribusinesses presented contract dishonouring as an operational issue rather than an ethical one. Partial delivery and mid-season side selling were mostly discussed in terms of how they affected supply planning and volume predictability. Although quality noncompliance was acknowledged, it was listed as a secondary concern; enterprises were more negatively impacted by the uncertainty surrounding contracted volumes than by variations in product standards. It is telling how this is framed. Agribusinesses warned about supply chain risk and procurement leakage, while farmers spoke about fairness, reciprocity, and broken faith. From very opposite moral perspectives, both parties were dealing with the identical contractual failings.

This is not an accidental asymmetry. It illustrates how the two parties' approaches to the contract differ structurally. Because he has committed labour, inputs, and time to a single crop with few other options, the farmer views the contract as a personal commitment made under extremely vulnerable circumstances. Therefore, a buyer's violation is perceived as a personal injustice. The contract is just one tool in a procurement portfolio for the agribusiness. Instead than being viewed as a moral failing, side selling is viewed as a statistical leak. This is a moral hazard issue in incomplete contracts, according to Bellemare (2012), especially when monitoring is expensive and enforcement is lax. According to Sexton (2013), farmer disobedience leads to uncertainty in planning and coordination that spreads across the supply chain. The ethical aspect of the relationship between the parties is not fully captured by either narrative, despite the fact that both are truthful to some extent.

This operational perspective is confirmed by agribusiness response patterns. Forty percent of businesses did nothing at all, and sixty percent decreased future interactions with noncompliant farms. None sought a formal legal remedy. According to Ngigi (2010), Kenyan exporters followed a similar pattern, modifying their supplier relationships instead of pursuing contractual enforcement. This was due to the high processing costs associated with legal action as well as the necessity to maintain supply network access. According to Macchiavello (2015), businesses typically normalize some noncompliance as an inevitable aspect of competitive procurement rather than a problem that has to be fixed by discipline in marketplaces with numerous competing bidders. As a result, there is a flexible compliance environment where the formal terms of any agreement are less important than continuing business connections.

This study adds a normative observation to that picture. Agribusiness's propensity to view dishonouring as a market phenomenon rather than a moral failing has ethical ramifications of its own. Businesses give farmers the impression that contractual duties are negotiable and that there is no true reciprocal accountability when they tolerate side selling, cut back on engagement without justification, or do nothing at all. This perpetuates the precise circumstances that lead to dishonor in the first place. The point made by Prof. Beyaraza during the defence of thisdissertation is relevant in this situation: people who act immorally are typically aware of the formal channels that are available to deal with them and know how to circumvent them. An agribusiness culture that reacts to violations by remaining silent or quietly disengaged is not neutral; rather, it is one in which moral behavior is not rewarded and unethical

behavior has no obvious repercussions. Agribusinesses must address the ethical aspects of their contracting procedures as well as the practical ones in order to close that gap.

5.3.4 Interventions to Enhance Ethical Conduct and Fairness in Contracting

The findings of this study point to a consistent pattern: contract dishonouring in Nkubu is driven less by poorly worded agreements than by poorly honoured ones. Non-compliance was most often caused by delayed collection and payment, which were execution errors. No matter how well written, a contract that is never enforced or whose payment requirements are ignored loses its morality. FAO (2012) and Oya (2012) note that contractual validity erodes when duties are frequently unfulfilled and that procedural consistency, showing up and paying when promised, is more important than precise contractual text in maintaining compliance. The first and most important step is simple: buyers must fulfill their duties because farmers observe and respond.

Formalisation of agreements is a necessary but insufficient step in that direction. Seventy percent of farmers in this study operated on verbal contracts, which, as Kagwiria and Gichuki (2017) document, systematically disadvantage farmers by leaving pricing, grading standards, payment timelines, and delivery conditions open to reinterpretation. FAO (2012) recommends written agreements as the baseline protection for both parties, with contracts signed well before the agricultural season and with adequate time for farmers to seek advice before signing. Davis et al. (2012) reinforce that a well-constructed contract should shield both parties from foreseeable risks and create a clear basis for enforcing obligations. Formalisation alone, however, does not address the power asymmetry that makes verbal arrangements so common in the first place. Farmers operating individually have limited bargaining leverage and limited access to market information. Bellemare (2020) finds that collaborative arrangements, cooperatives and producer groups, materially improve negotiation outcomes and reduce opportunistic behaviour by buyers. Oya (2012) and Kagwiria (2017) similarly find that buyer-farmer communication, whether direct or through farmer representatives, stabilises contracting relationships and reduces the misunderstandings that escalate into breach. Strengthening farmer organisations is therefore not a peripheral recommendation; it is the structural condition that makes other interventions viable.

Transparency in grading and payment is the third area requiring attention. Farmers in this study reported that grading criteria were frequently unclear and that deductions were applied without explanation, leaving them unable to verify whether they had been fairly assessed. Price

guarantees were rarely offered, exposing farmers to market volatility without corresponding protection. FAO (2012) recommends explicit pricing, complaint procedures, and dispute resolution paths to protect contractual integrity. Where grading is unclear and payment timelines are unreliable, farmers lose trust and morality for compliance. In contractual contexts that are not trustworthy, Davis et al. (2012) warns that training and capacity-building programs, like Farmer Field Schools, do not improve farmers who understand their rights but cannot enforce them. Tanzanian researchers Kimbi et al. (2024) find that fair participation requires pricing and extension support improvements in addition to transparency measures. Transparency is not cosmetic. Ethical contracting requires farmers to make educated and autonomous decisions about whether and how to honor their promises.

5.3.5 The Ethics of Contract Behaviour: A Philosophical Analysis

Can Trust and Transparency Be Expected? Various interventions have been discussed above. These include the use of written contracts, faster payment, digital traceability, cooperative membership, and mediation clauses. They all have the same assumption that trust and transparency follows the intervention once they have been structurally supported. This is indicated through the finding which showed that when farmers consider the buyers to be reliable and transparent, they did not dishonor the contracts. Also, quick settlement of payments led to lower side-selling rates. Trust and transparency are therefore not peripheral virtues in contract farming; they are load-bearing conditions for the entire system.

However, there is a persistent question that remains: can trust and transparency realistically be expected as a matter of course within a contemporary contractual framework? The results of the study, therefore, give a reason to wonder. Despite being aware of their responsibilities, buyers continued to postpone payments. Even farmers who were aware of their contracts continued to side sell when the chance presented itself. Some agreements included external procedures, such as written terms, legal enforceability, and monitoring systems, but they were unable to stop violations. This implies that the issue is more than just institutional or informational. It is fundamentally a human character issue.

Augustine's distinction between the *City of God* and the *City of Man* is instructive here (Augustine, 413–426/1984). In the earthly city, men are not angels; self-interest and obligation compete even among those who know better. The familiar adage says it plainly: *in God we trust; in man, we audit.* This is not cynicism; it is a clear-eyed account of the human condition, and it has direct implications for contract design. Written agreements, monitoring systems, and

penalty clauses are necessary precisely because trust cannot be assumed. But they are not sufficient. A farmer who intends to side-sell and a buyer who intends to delay payment will work around formal structures because they understand them. External mechanisms raise the cost of breach; they cannot produce the interior commitment that makes breach genuinely unthinkable. The recommendations of this study must be read within that limit; necessary, but not enough on their own.

5.3.5.1 Internal Forces: Why Some Resist and Others Do Not

Farmers in Nkubu faced broadly similar structural conditions: volatile spot prices, payment delays, and weak enforcement. Yet their responses diverged sharply. Some delivered in full to their contracted buyer despite better offers at the farm gate. Some agribusinesses maintained transparent grading and prompt payment even where monitoring was absent and exploitation would have gone undetected. The difference cannot be located in external incentives, which were largely shared, nor in ignorance, since those who side-sold knew their obligations and buyers who manipulated grading understood they were departing from what had been agreed. The failure, where it occurred, was volitional rather than epistemic. Something interior distinguished those who held to their commitments from those who did not.

Aristotle's account of virtue names that interior force with precision. In the *Nicomachean Ethics*, virtuous action is not merely correct action but action flowing from a stable disposition of character, what Aristotle calls *hexis*, formed through repeated practice over time (Aristotle, 1999, II.1). The farmer who honoured his contract was not calculating that honesty was the optimal strategy in that moment; he was acting from a formed character that inclines toward keeping faith. The agribusiness that maintained fair grading under weak oversight was not doing so because it was being watched, but because its institutional culture had cultivated a disposition toward fair dealing that operated independently of enforcement. Aristotle observes that the virtuous person finds it easier, not harder, to act well, because virtue removes the friction that others must overcome every time (Nicomachean Ethics, II.3). Price premiums and penalty clauses change the calculus for someone weighing options. They cannot touch the character of someone for whom the question does not arise.

5.3.5.2 The Abuse of Freedom: Choosing Against the Good

One key observation made in this study is that the farmers who side-sold were not largely confused about their obligations. The buyers who manipulated grading terms were not ignorant

of what had been agreed. The failure in both cases was not a failure of knowledge. It was a failure of will. Aristotle named this phenomenon *akrasia*, weakness of will, or more literally, lack of self-command (Nicomachean Ethics, VII.1). The *akratic* person is distinguished from the simply vicious person precisely because he knows better. He sees the good, acknowledges it, and acts against it anyway. Aristotle's explanation is that in the moment of temptation, appetite overwhelms reason. The broker's cash at the farm gate, or the margin preserved by an opaque grading deduction, floods the field of deliberation, and the knowledge that a promise was made recedes into the background (Nicomachean Ethics, VII.3). The farmer knows the contract. He also knows the broker is standing there with money. In that moment, the second fact feels more urgent than the first.

This is what makes *akrasia* morally significant. The capacity for ethical failure is not confined to bad people; it is a structural feature of human freedom. To be free is to be capable of rejecting what is genuinely good, not out of ignorance but in full awareness. Augustine understood this: the will can turn away from the good it recognises, and that turning, not compulsion or lack of information, is the root of moral failure (Augustine, 413–426/1984, XIV.11–13). Frankfurt (1971) adds a complementary lens, distinguishing between first-order desires, the immediate want, and second-order desires, the reflective commitment to being a certain kind of person. The farmer who honours his contract despite a better offer is acting from a second-order commitment to keeping faith. The farmer who side-sells often wishes, on reflection, that he had not, which is precisely Aristotle's description of the *akratic* agent. No penalty clause closes that gap. Closing it requires the kind of interior formation that structural interventions cannot reach.

5.3.5.3 How Virtue Can Be Cultivated and Spread

If the problem is interior, the response must also be interior. This study's data suggests that virtue is not merely a theoretical possibility in Nkubu's contracting environment but an empirical reality already present within it. Some farmers consistently honoured their contracts under the same structural pressures that led others to side-sell, and they articulated their reasons in explicitly moral rather than economic terms: a promise is a promise; I gave my word. Prof. Beyaraza described such individuals as conscientious objectors, people who hold to an ethical position not because the system compels them but because they have made it genuinely their own. They are the proof that the interior disposition this study argues for is achievable in this

context, and the practical question the findings therefore pose is not whether virtue is possible here but how to cultivate and spread it more deliberately.

The African philosophical tradition offers resources that Western contractual ethics tends to overlook. Ubuntu, expressed in the Nguni phrase *umuntu ngumuntu ngabantu*, locates moral identity not in the isolated individual but in the web of relationships that constitute a community, so that acting rightly is inseparable from being recognised as a person of integrity within that community (Gyekye, 1997; Tutu, 1999). The farmer who honours his contract because that is who we are and want to be, is not following an abstract rule but acting from a communal identity in which honesty is constitutive rather than merely obligatory. Douglas (1966) points to a related mechanism in traditional societies: the taboo, a prohibition so deeply internalised that violation becomes psychologically unthinkable rather than merely legally impermissible. Where qualitative data from Nkubu suggest that such norms around promise-keeping persist, they constrain behaviour more reliably than any written contract clause, precisely because they do not depend on the presence of enforcement to remain operative.

The challenge is scale, since Ubuntu and taboo function within communities of mutual recognition where people know each other and can learn from each other's conduct, conditions that the anonymous and geographically dispersed avocado export chain tends to erode. Three directions are proposed in response. Farmer cooperatives should be cultivated as moral communities in which Ubuntu can operate relationally, not merely as economic bargaining units. Agricultural education programmes, including FAO Farm Business Schools, should be extended to address character formation alongside technical knowledge, treating the ethics of promise-keeping as a matter of identity rather than compliance. Also, farmers and agribusinesses that model integrity under pressure should be publicly recognised, since Aristotle's observation remains as practically relevant as it is philosophically precise: we become virtuous partly by imitating the virtuous (Nicomachean Ethics, II.1), and visible exemplars give communities something concrete to orient themselves toward.

Chapter 6: Conclusion and Recommendations

6.1 Summary of Findings

This study set out to examine the ethical considerations that shape contract compliance among smallholder avocado farmers in Nkubu, Meru County, Kenya, using a convergent mixed-methods design that combined quantitative survey data from 243 farmers and 10 agribusiness respondents with qualitative interviews subjected to thematic analysis.

On the first objective, the findings revealed that contract compliance was the dominant pattern, with 65.8% of farmers reporting full adherence to agreed terms. A substantial minority, however, engaged in partial compliance through side-selling, while a small proportion defaulted entirely. What the numbers alone do not capture is that compliance in Nkubu is conditional rather than absolute: farmers calibrate their participation in response to how the contractual relationship unfolds in practice, staying in the system while adjusting the degree to which they honour it.

On the second objective, farmers overwhelmingly framed contract dishonouring in relational rather than economic terms. Delayed collection, delayed payment, opaque grading, and unilateral changes in contract terms ranked above better prices elsewhere as reasons for non-compliance. This ordering indicates that most farmers did not begin from a position of opportunism. Breach followed perceived injustice on the buyer's side, and farmers spoke of their decisions in the language of fairness, obligation, and broken faith rather than profit maximisation.

On the third objective, agribusiness firms interpreted dishonouring primarily as an operational rather than an ethical problem, framing side-selling and partial delivery as supply chain risks rather than moral failures. Firms responded informally, reducing future engagement or taking no action at all, reflecting both the high cost of formal enforcement and a broader normalisation of noncompliance as a feature of competitive procurement.

On the fourth objective, the study found that perceived justice significantly reduced the likelihood of contract dishonouring, while prudential reasoning significantly increased compliance, with both relationships confirmed through ordinal logistic regression. The contracting environment, characterised by a prevalence of verbal agreements, low cooperative membership, limited price guarantees, and opaque grading practices, systematically erodes the

trust and transparency on which ethical conduct depends. Compliant farmers exhibited meaningfully stronger moral reasoning than non-compliant ones, reinforcing the study's central argument: that contract behaviour in Nkubu is shaped by the moral character of the parties and their experience of justice in the relationship, and cannot be adequately explained by economic incentives alone.

6.2 Conclusion

This study examined the ethical considerations that influence smallholder avocado farmers in Nkubu, Meru County when deciding whether to honour or dishonour farming contracts. The dominant tradition in contract farming scholarship, represented by Watts (1994), Oya (2012), Kagwiria (2017), and Tschirley (2009), explains breach through political economy, institutional incentives, and market structure. These explanations are not wrong so much as they are incomplete. They account for the conditions under which breach becomes likely but cannot explain why farmers so consistently reach for the language of fairness, betrayal, and obligation when they describe their decisions, rather than the language of price and profit. This study, anchored in Aristotle's Nicomachean Ethics, has sought to fill that gap by treating compliance and breach as moral actions shaped by character, practical wisdom, and the lived experience of justice rather than as purely calculative economic responses.

The findings affirm the explanatory power of that framework. The primary triggers of contract dishonouring were not better prices elsewhere but buyer-related failures: delayed collection, delayed payment, opaque grading, and unilateral changes in terms. Farmers who experienced these failures interpreted them as injustices, as violations of the proportionality and reciprocity that Aristotle identifies as the essence of distributive and commutative justice, and their sense of obligation weakened correspondingly. Farmers who honoured contracts despite short-term losses were exercising prudence, weighing the long-term value of a reliable relationship against the immediate gain available elsewhere and judging the relationship worth preserving. Valentinov (2024), who emphasises relational ethics and trustworthiness in contracts, and Kampmann (2015), who applies ethics directly to farming practice, come closest in the existing literature to what this study finds empirically; both are extended and grounded here in the specific moral reasoning of smallholder farmers in a Kenyan context, which neither addressed directly.

Agribusinesses, for their part, read dishonouring as an operational problem rather than an ethical one, responding through informal relationship adjustments rather than moral

engagement or formal enforcement. This reflects a deeper misalignment than a mere difference in perspective. Farmers were asking whether the arrangement was fair; buyers were asking how supply could be maintained. That mismatch is itself a source of the relational breakdown that produces dishonouring, and it points toward the central conclusion of this study: contract behaviour in Nkubu is shaped more by perceived fairness, reciprocity, and the character of the parties than by economic incentives alone. Addressing it therefore requires not only the reform of external structures but the cultivation of the interior dispositions, the virtues of justice and prudence, that make contractual relationships genuinely ethical rather than merely enforceable.

6.3 Recommendations

The following recommendations are derived from the study findings, and they offer practical measures that can be adopted by relevant stakeholders to improve outcomes. They can also support the sustainable achievement of the study objectives.

6.3.1 Policy Recommendations

The findings point toward regulatory frameworks that prioritise fairness and consistency in contract execution rather than merely contract formation. Payment delays, delayed collection, and opaque grading were the most persistent triggers of dishonouring in this study, which means that policy attention must move beyond encouraging farmers to sign contracts and toward holding buyers accountable for honouring them. Pricing, grading criteria, and payment timelines should be clearly defined, with all deductions and conditions affecting farmer returns made explicit before the season begins. FAO (2012) is clear that contract effectiveness depends not on the sophistication of the document but on whether its terms are transparent, fair, and consistently applied by both parties.

Contract formalisation is a necessary step in that direction. The prevalence of verbal agreements in Nkubu creates a contracting environment in which accountability is entirely relational and farmers have no written basis on which to contest unfair treatment. Bellemare (2020) finds that written contracts with explicit obligations, defined pricing systems, clear dispute resolution pathways, and agreed timetables reduce opportunistic behaviour and build the confidence that sustains long-term participation. Such contracts should also include provisions for flexible renegotiation and risk sharing, acknowledging that agricultural production operates under conditions of genuine uncertainty that neither party can fully control.

Establishing trustworthy payment methods and bolstering farmer cooperatives are equally crucial. Due to the study's low cooperative membership, the majority of farmers engaged in

individual negotiations without access to market data or collective bargaining power. This is directly addressed by supporting producer organizations, which enhances coordination, lessens information asymmetry, and gives farmers a significant say in the terms of contracts and their monitoring (Bellemare, 2020). Policy should give priority to quick and transparent payment methods, such as mobile money platforms and legally binding payment deadlines. Delayed payment was among the most corrosive factors identified in this study, damaging trust and pushing farmers toward side-selling as a rational self-protective response. According to Kagwiria (2020), farmer compliance and long-term involvement significantly enhance when buyers pay on time and consistently because the contractual relationship maintains the credibility that ethical behavior demands.

6.3.2 Practice Recommendations for Agribusiness Firms

The biggest improvement agribusiness enterprises can make is to fulfill their duties. This study indicated that delayed collection and payment were the main causes of farmer dishonouring, indicating that buyer failure rather than farmer opportunism drives much of it. Timely collection and payment eliminate the main reason farmers side-sell. Operational discipline, not institutional reform, would affect compliance rates more quickly than contract design.

The second practical issue is grading transparency. Uncertain grading and deductions caused farmers in this study discontent and distrust. Clear grading criteria before delivery, written feedback upon evaluation, and explanation and contestability of deductions would lessen the perception of arbitrariness that undermines the contractual relationship's morality. When farmers can see and verify their produce's assessment, the relationship gains credibility that lasts.

Risk sharing also needs more focus from the firms. Avocado growers bear most of the production and market risk, which they see as a contract injustice. Partial price promises, flexible renegotiation clauses, or methods for crop failure or market disruption could start to balance the disparity. FAO (2012) says that permanent contract farming partnerships depend on buyer-farmer loyalty and respect, and that shared risk is key to maintaining that commitment. By regularly communicating, reviewing contracts, and responding to farmer comments, firms that engage farmers relationally rather than transactionally develop trust that makes ethical behavior more likely and durable on both sides.

6.3.3 Recommendations for Farmers

The most immediate practical step available to farmers is collective organisation. Operating individually, as the majority of farmers in this study did, leaves them without bargaining leverage, reliable market information, or a collective voice in how contract terms are set. Joining or forming cooperatives addresses all three deficits simultaneously, improving negotiation outcomes and creating the kind of mutual accountability within which ethical norms are more likely to take hold.

Farmers should also insist on written contracts before committing their produce. Verbal agreements leave farmers with no documented basis on which to contest unfair grading, delayed payment, or unilaterally altered terms. FAO (2012) recommends that farmers take adequate time to review contract terms, seek independent advice where possible, and ensure all agreed conditions are documented. Investing in contract literacy, through training programmes and peer learning within cooperatives, equips farmers to evaluate fairness and respond constructively when disputes arise.

On side-selling, this study warrants a direct recommendation. Farmers who side-sold generally knew their obligations and chose to act against them. That grievance may be understandable, but side-selling is ethically problematic even when a competing price is higher, because a freely given commitment carries moral weight that market conditions do not dissolve. Where buyers are failing, the appropriate response is to raise the issue through legitimate channels rather than breach silently.

6.3.4 Recommendations for the Cultivation of Ethical Culture

The recommendations in the preceding sections address external structures: written contracts, faster payments, cooperative membership, transparent grading, and digital tools. These are necessary, but they are not enough. The philosophical examination in the previous chapter showed that external procedures increase the cost of breach and diminish the ease of evasion, but they cannot create the internal disposition that makes a partner truly committed to an agreement. Augustine's claim that humans are not angels and Aristotle's view of virtue as a stable disposition formed through practice and community rather than instruction alone suggest that Kenya's agricultural sector has neglected to cultivate ethical culture in the contracting environment's institutions and communities.

This study found farmers who honoured their contracts not because they were being monitored or because the economics favoured compliance, but because integrity had become inseparable from who they understood themselves to be. Prof. Beyaraza described such individuals as conscientious objectors in the ethical sense, people who hold to a moral position independent of external compulsion. They already exist in Nkubu. The practical question is how to recognise, support, and multiply them, because a contracting environment with more such actors is, by definition, a more ethical one.

Three directions are proposed. Farmer cooperatives should be cultivated as moral communities, not merely economic institutions. On the Ubuntu view of moral identity, acting rightly is inseparable from belonging to a community that expects and models integrity, and cooperatives that treat breach as a communal rather than individual failing will produce more ethical actors over time than those focused solely on price negotiation. Since teaching farmers what to do is different from developing a stable commitment to their ideal self, agricultural education programs like Farmer Field Schools and extension services should include character development alongside technical training. Finally, the Avocado Society of Kenya and county governments should publicly recognize farmers and agribusinesses that demonstrate integrity under pressure. Aristotle's observation that we become virtuous partly by imitating the virtuous is a practical design principle, and Kenya's avocado sector's visible exemplars of ethical conduct address the internal condition that determines how any external structure will be used.

6.3.5 Recommendations for Further Research

i. Future studies should adopt longitudinal designs to examine how contract compliance, trust, and ethical reasoning evolve over time, addressing the limitations of cross-sectional data.
ii. Research should be extended to other regions and agricultural sectors to improve generalisability and capture contextual variations in contract farming practices.
iii. Further research on agribusiness ethics is needed to better understand how corporations interpret contractual duties and how they differ from farmers' perspectives.
iv. There is a need to examine the effectiveness of institutional and technological interventions in improving fairness and compliance.

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Appendices

Appendix A: Farmers' Questionnaire

A) QUALITATIVE INSTRUMENT: SEMI-STRUCTURED INTERVIEW GUIDE

1. Interview set-up

This interview is part of a study being conducted by a Master of Applied Philosophy and Ethics student at Strathmore University.

We are studying avocado fruit selling contracts and how ethical considerations are made by farmers and agribusiness companies

a) You can choose to participate or not to participate
b) If you choose to participate, you can stop at any time
c) I will not write your name on the report, if you so choose
d) Your answers will be kept private
e) The interview takes 45-60 minutes

Do you agree to participate? Yes, __ No___

Do you allow audio recording? Yes, __ No ___

Interview Code:	
Date:	
Location:	
Enumerator:	

Quick definitions (read)

i. **Contract/agreement:** a promise between farmer and buyer about selling avocados.

ii. **Side selling:** selling to another buyer when you had agreed to sell to someone else.

2. Interview guide

Section A: Background and farm profile

1. Respondent age (years): ____
2. Gender: ☐ Male ☐ Female
3. Highest education: ☐ None ☐ Primary ☐ Secondary ☐ College ☐ University
4. Household size (people living together): ____
5. Main sources of income:
   ☐ Avocado ☐ Other crops ☐ Livestock ☐ Business ☐ Salary ☐ Other:
   _____
6. Total land size (acres): _____
7. Avocado trees (number): _____
8. Which varieties? _____
9. Years growing avocado: _____
10. Last season total avocado sold (approx.):
    ☐ <1 ton ☐ 1–3 tons ☐ 3–5 tons ☐ >5 tons ☐ Do not know
11. Membership in farmer group/cooperative: ☐ Yes ☐ No
    If yes, name: _____
12. In the last season, who did you sell to most?

    exporter / packhouse / avocado oil buyer / broker / aggregator / open market

    _____
    _____Why that buyer?
    _____
    _____
    _____

_____

_____

13. Did you have any agreement/contract last season?

☐ Yes ☐ No

Section B: Contracting experience (what is)

1. In the last 12 months, did you have any agreement with a buyer?

   written contract / verbal agreement / through group / through broker / none

   _____

2. Please describe the agreement in your own words.

   What did you promise to do? (e.g. sell only to buyer, deliver a set quantity, follow quality rules, deliver at set times)

   _____

   _____

   _____

   _____What did the buyer promise to do? (e.g. buy all your produce, pay a given price, pay within set time, provide inputs/extension, collect from farm)

   _____

   _____

   _____

   _____

3. In the last season, did you deliver everything as agreed?

   fully delivered / partly delivered / did not deliver / sold to others (side sold)
   Enumerator must probe gently: "Many farmers face challenges. We are not judging. We only want to understand."

   _____

   _____

4. If you did not deliver fully, what happened? (Tick any that is appropriate)

   - price issue?

- delayed payment?
- buyer delay in collection?
- grading problems?
- emergency at home?
- buyer changed terms.
- broker offered cash.

_____
_____
_____
_____
_____

Section C: Justice (fairness) – how farmers judge the situation

1. When you say “fair” or “unfair,” what do you mean?

   _____
   _____
   _____

   Probe: fair price, fair grading, fair deductions, fair timing, respect, honesty.

2. Price fairness

   How was price decided?

   _____
   _____
   _____Did the price match your costs and risks? Why/why not?
   _____
   _____
   _____

3. Grading fairness

Who graded? Where?

_____

_____Was grading clear and consistent?

_____

_____Were deductions explained?

_____

_____Do you think grading changed compared to before?

_____

_____

4. Payment fairness

a) How long did it take to be paid?

_____

b) Was it the promised time?

_____

c) How did delays affect you?

_____

_____

_____

5. Do you think the buyer also ever "breached the agreement"?

(late collection, late payment, changing grading, changing price rules)

If yes, how did it affect you and how did you handle it?

_____

_____

_____

_____

_____

Section D: Prudence (practical decision under pressure)

1. When you face a hard situation (fees, hospital, food) and you have avocados you can sell, how do you decide what to do? Who do you consult? spouse, relatives, group leaders, broker, buyer officer?

   _____

   _____

   _____

   _____

2. What is the "wise" thing to do when:

   a) payment is delayed for many weeks?

   _____

   _____

   _____

   b) broker offers cash at the farm gate?

   _____

   _____

   _____

   c) buyer rejects your fruit?

   _____

   _____

   _____

   d) school fee is due today and you have no money, but you have avocados?

   _____

   _____

   _____

3. Do you think side selling is sometimes necessary?

   When?

   _____

   _____

   _____

   _____

Section E: Duty and consequences (ought reasoning)

1. Some people say: “A promise is a promise. You must keep it even when it hurts.” Do you agree or disagree? Why?

_____

_____

_____

_____

2. Some people say: “The best action is the one that helps the family survive.” Do you agree or disagree? Why?

_____

_____

_____

_____

3. In your view, what should a good farmer do in a contract?

_____

_____

_____

4. In your view, what should a good buyer/company do in a contract?

_____

_____

_____

Section F: Trust and relationships

1. Do you trust buyers? Do you trust brokers? Why?

_____

_____

_____

2. What builds trust? What destroys trust?

_____

_____

_____

_____

_____

3. If there is conflict, how is it solved? (village elders, group, chief, court, walk away)

_____

_____

_____

Section G: Improvements (interventions)

1. What changes would make contracts more fair and easier to honour? (Tick all that apply)

    - □ clear price formula?
    - □ written terms?
    - □ faster payment?
    - □ transparent grading?
    - □ complaint hotline?
    - □ arbitration/mediation clause?
    - □ digital weighing + SMS receipt + instant mobile money?

    _____

    _____

    _____

2. If you had power to design the contract, what 5 things must be included?

_____

_____

_____

_____

Close of section: Anything else you want to add?

_____

_____

_____

_____

_____

VT OMNES
VNVM SINT

B) QUANTITATIVE INSTRUMENT

Section 1: Contract compliance behaviour (what you did = "is")

1. Last season, how did you deliver under the agreement?

   ☐ Delivered all as agreed

   ☐ Delivered some, and sold some elsewhere

   ☐ Did not deliver at all

   ☐ Stopped agreement before season ended

2. If not "delivered all," what were the main reasons? (choose up to 3)

   ☐ Better price elsewhere

   ☐ Buyer delayed payment

   ☐ Buyer delayed collection

   ☐ Grading/rejections felt unfair

   ☐ Deductions were not explained

   ☐ Emergency need for cash (fees/medical/food)

   ☐ Buyer changed terms

   ☐ Buyer did not keep promises

   ☐ Broker paid cash at farm gate

   ☐ Other:

   _____

   _____

   _____

3. If you side sold, about how much (%) of your avocado did you sell elsewhere?

   ☐ 1–25% ☐ 26–50% ☐ 51–75% ☐ 76–100%

4. Did buyer ever delay payment to you last season? ☐ Yes ☐ No

   If yes, how long after delivery did you receive full payment?

   ☐ Same day ☐ 1–7 days ☐ 8–14 days ☐ 15–30 days ☐ >30 days

5. Did buyer ever delay collection? ☐ Yes ☐ No

   If yes, did it cause loss/spoilage? ☐ Yes ☐ No

6. Did buyer ever reject your fruit? ☐ Yes ☐ No

   If yes, was reason clearly explained? ☐ Yes ☐ No

Section 4: Justice (Fairness index) — "how you judge"

Enumerator: Read: "Now I will read statements. Tell me if you strongly disagree, disagree, not sure, agree, or strongly agree."

Scale: 1=Strongly disagree 2=Disagree 3=Not sure 4=Agree 5=Strongly agree

A. Price fairness

1. The price I received was fair compared to my costs. 1 2 3 4 5
2. The price I received was fair compared to the risks I took. 1 2 3 4 5
3. The buyer explained clearly how the price was decided. 1 2 3 4 5
4. The buyer adjusted price fairly when market price changed. 1 2 3 4 5

B. Grading and deductions fairness

1. Grading rules were clear before delivery. 1 2 3 4 5
2. Grading was done the same way each time (consistent). 1 2 3 4 5
3. Deductions (fees, transport, losses) were explained clearly. 1 2 3 4 5
4. I could challenge grading/deductions and be heard. 1 2 3 4 5

C. Payment fairness

1. Payment was made on time as promised. 1 2 3 4 5
2. Payment delays (if any) were explained honestly. 1 2 3 4 5
3. Payment method was transparent (receipt/SMS/statement). 1 2 3 4 5

D. Respect and good faith

1. The buyer treated farmers with respect. 1 2 3 4 5
2. The buyer kept promises most of the time. 1 2 3 4 5
3. The buyer was honest in communication. 1 2 3 4 5

Section 5: Prudence (Decision-making under uncertainty)

Same scale: 1–5

1. If payment delays are long, it is wise to sell some avocado elsewhere to protect my family. 1 2 3 4 5
2. If the buyer breaks the agreement first, it is wise to stop delivering. 1 2 3 4 5
3. Even when prices rise elsewhere, it is wise to keep delivering to the buyer to protect long-term trust. 1 2 3 4 5
4. When I face an emergency, getting cash quickly is more important than contract rules. 1 2 3 4 5
5. Before I decide to side sell, I try to talk to the buyer first. 1 2 3 4 5
6. I think it is wise to deliver partly (not all) when I fear I will not be paid soon. 1 2 3 4 5

Section 6: Moral orientation statements (duty vs welfare) — "ought"

Same scale: 1–5

Duty-based (promise keeping)

1. A promise must be kept even if it is hard. 1 2 3 4 5
2. Side selling is wrong even if the farmer needs money urgently. 1 2 3 4 5
3. A good person keeps agreements, even when the other side is slow. 1 2 3 4 5

Welfare / consequences

1. The best decision is the one that helps the family survive. 1 2 3 4 5

2. If side selling prevents hunger or school dropout, it can be the right thing to do. 1 2 3 4 5

3. If a contract causes suffering, it is acceptable to leave it even before it matures. 1 2 3 4 5

Trust and relationship

1. Trust is more important than price. 1 2 3 4 5

2. I trust brokers more than companies. 1 2 3 4 5

3. I trust companies more than brokers. 1 2 3 4 5

Section 7: Digital tools and transparency (context)

1. When selling, do you receive any written proof (receipt/SMS)?
   ☐ Always ☐ Sometimes ☐ Never

2. Have you ever used digital weighing/traceability tools? ☐ Yes ☐ No

3. Would instant mobile money payment reduce side selling?
   ☐ Yes, a lot ☐ Yes, a little ☐ No ☐ Not sure

Section 8: Factorial vignettes (core causal tool)

Enumerator: Read slowly: "Now I will read short stories. They are not about you. After each story, tell me what the farmer in the story should do, and what you think you would do."

For each vignette, record:

A) Likelihood the farmer delivers to contract buyer: 0–10 (0=definitely not, 10=definitely yes)

B) What should the farmer do? (tick one)

☐ Deliver all to buyer ☐ Deliver part and sell part elsewhere ☐ Sell all elsewhere ☐ Talk to buyer first ☐ Other: __

C) Why? (short open answer – 1–2 sentences)

Vignette 1: Payment delay + no emergency

A farmer has a contract with a buyer. The price is okay. The buyer usually pays after 30 days, but last time paid after 45 days.

A) 0–10: ____

B) choice:

_____

C) why:

_____

_____

_____

Vignette 2: Payment delay + school fees emergency

Same contract. Price is okay. Payment may delay. The farmer's child is sent home for fees today. A broker offers cash now, but at a slightly lower price.

A) 0–10: ____

B) choice:

_____

C) why:

_____

_____

_____

Vignette 3: Good price but unfair grading

Buyer price is good, but grading is strict and deductions are not explained well. A broker offers a lower price but accepts most fruit.

A) 0–10: ____

B) choice:

_____

C) why:

_____

_____

_____

Vignette 4: Buyer changes terms

At the start, the buyer promised to buy all grades. Later, the buyer says they will only buy top grade. Farmer already spent money on farm inputs.

A) 0–10: ____

B) choice:

_____

C) why:

_____

_____

_____

Vignette 5: Company is fair and fast

Buyer uses digital scale, gives SMS receipt, and pays within 2 days. Market price rises higher elsewhere.

A) 0–10: ____

B) choice:

_____

C) why:

_____

_____

_____

Section 9: Closing

Any other comments?

_____

_____

End. Thank you.

Appendix B: Aggregators and Agribusiness Companies' Questionnaire

Ethical Considerations in Contract Farming: Nkubu, Meru County

Interviewer Introduction

This questionnaire is part of an academic study by Strathmore University on avocado contracting practices in Nkubu.

Participation is voluntary.

You may stop at any time.

Your responses will be kept anonymous and used only for this research purpose.

Do you consent to participate?

☐ Yes ☐ No

Section A: Respondent and Organisation Profile

1. Type of respondent

   ☐ Exporter / Packhouse

   ☐ Avocado oil processor

   ☐ Aggregator / Broker

2. Your role in the organisation

   ☐ Owner ☐ Manager ☐ Procurement officer ☐ Field agent ☐ Other: _____

3. Years of operation in avocado trade: _____ years

4. Do you operate in Nkubu?

   ☐ Yes ☐ No

5. Approximate number of farmers you deal with in Nkubu per season: _____

Section B: Contracting Arrangements (Descriptive – *What is done*)

1. Do you use contracts with farmers?

   ☐ Always ☐ Sometimes ☐ Never

2. If yes, what type of contracts do you mainly use? (Tick all that apply)

   ☐ Written individual contracts

   ☐ Group contracts

   ☐ Verbal agreements

   ☐ No fixed contracts

   ☐ Other

   _____

3. What obligations do farmers usually have under your arrangements?

   ☐ Exclusive delivery

   ☐ Quality/grade compliance

   ☐ Delivery schedule

   ☐ Use of specified inputs

4. What obligations does your organisation usually have?

   ☐ Guaranteed price

   ☐ Timely payment

   ☐ Collection at farm gate

   ☐ Inputs or technical support

Section C: Contract Compliance and Breach (Observed Behaviour – *What happens*)

1. In your experience, how common is farmer side-selling in Nkubu?

   ☐ Very common ☐ Common ☐ Rare ☐ Very rare

2. What forms of non-compliance do you most often observe? (Max 3)

   ☐ Side selling

   ☐ Partial delivery

   ☐ Quality non-compliance

   ☐ Withdrawal mid-season

3. At what point is side selling most likely to occur?

   ☐ At harvest peak

☐ When prices rise

☐ When payments delay

☐ After grading disputes

4. How do you usually respond to farmer non-compliance?

   ☐ Warning

   ☐ Reduced future engagement

   ☐ Termination of relationship

   ☐ Legal action

   ☐ No action

Section D: Justice and Fairness (Ethical Perceptions)

Scale: **1 = Strongly disagree 5 = Strongly agree**

1. Our pricing is fair given farmers' costs and risks.
   1 2 3 4 5

2. Grading standards are clear and applied consistently.
   1 2 3 4 5

3. Payment timelines are clearly communicated.
   1 2 3 4 5

4. When delays occur, we give honest explanations.
   1 2 3 4 5

5. Farmers generally understand the terms they sign.
   1 2 3 4 5

Section E: Prudence and Practical Constraints (*Decision under uncertainty*)

1. What mainly causes payment delays on your side? (Tick all that apply)

   ☐ Export market delays

   ☐ Cash-flow constraints

   ☐ Quality disputes

☐ Logistics issues

☐ No delays

☐ Other

_____

_____

2. How do you expect farmers to act when payments delay?

   ☐ Wait patiently

   ☐ Communicate concerns

   ☐ Deliver partially

   ☐ Seek other buyers

   ☐ Other

   _____

   _____

3. In your view, is partial side-selling ever understandable?

   ☐ Yes ☐ No ☐ Depends

4. If "depends", under what conditions?

   _____

   _____

   _____

Section F: Moral Reasoning and Obligations (*What ought to be done*)

1. Farmers should always honour contracts regardless of circumstances.

   1 2 3 4 5

2. Emergency household needs can justify selling outside contracts.

   1 2 3 4 5

3. If a buyer delays payment, farmers are morally justified to stop delivery.

   1 2 3 4 5

4. A good buyer should prioritise fairness over strict enforcement.

   1 2 3 4 5

Section G: Trust and Relationship Quality

27. What builds trust with farmers? (Max 3)

☐ Timely payment

☐ Transparent grading

☐ Stable prices

☐ Regular communication

☐ Respectful treatment

☐ Other

_____

_____

_____

28. What most damages trust? (Max 3)

☐ Payment delays

☐ Arbitrary grading

☐ Changing terms

☐ Poor communication

☐ Other

_____

_____

_____

29. Once trust is broken, can it be rebuilt?

☐ Yes ☐ No ☐ Sometimes

Section H: Vignette Scenarios (Ethical Judgement)

Scenario 1

A farmer delivers avocados on time. Payment delays for 4 weeks due to exporter settlement delays.

How acceptable is farmer side-selling in this case?
0 1 2 3 4 5 (0 Not acceptable – 5 Fully acceptable)

Why? (1–2 sentences)

_____

_____

_____

Scenario 2

A farmer has school fees due. A broker offers immediate cash, but the contract price is fair.

What should the farmer do?

☐ Honour contract ☐ Partially sell ☐ Fully sell elsewhere

Why?

_____

_____

_____

Section I: Interventions and Improvements

1. Which changes would most reduce contract breach? (Rank top 3)

   ☐ Faster payment systems

   ☐ Clearer contracts

   ☐ Joint grading

   ☐ Digital traceability

   ☐ Mediation mechanisms

   ☐ Other

   _____

   _____

   _____

2. Would you support contract clauses allowing limited flexibility during emergencies?

   ☐ Yes ☐ No ☐ Maybe

3. What one change would you personally prioritise?

   _____

_____

_____

Section J: Closing

Any other comments?

_____

_____

_____

_____

_____

End of Questionnaire

Thank you for your time.



Appendix C: Similarity Report

Appendix 3 - Turnitin Report

Patrick Ndungu Mathenge

Mathenge Patrick Ndungu _ SN 46910 _ MAPE _ Ethical Considerations in Contract Farming 06062026.pdf

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Appendix D: Ethical Clearance Confirmation

Strathmore UNIVERSITY

26th January 2026

Mr Mathenge Patrick,
patrick.mathenge@strathmore.edu

Dear Mr Mathenge,

RE: Ethical Considerations in Contract Farming: The Case of Small-Holder Avocado Farmers in Nkubu, Meru County, Kenya

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** research proposal. Your application reference number is **SU-ISERC3300/26.** The approval period is from **26th January 2026 to 25th January 2027.**

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, and MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification
iv. Any changes, anticipated or otherwise, that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours
v. Clearance for the export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) https://research-portal.nacosti.go.ke/ and obtain other clearances needed.

Yours sincerely,

Mr Ambrose Rachier,
Chairperson; SU-ISERC

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