

Original Article

# The Role of Matrilineal Kinship in Resources Allocation, Decision Making and Marketing of Spice Products in Morogoro Region Tanzania

G. Agness Metta<sup>1</sup>, Respikius Martin<sup>2</sup>, David Mhando<sup>3</sup>

<sup>1</sup>Department of Policy Planning and Management, Sokoine University of Agriculture, Morogoro, Tanzania.

<sup>2</sup>Department of Agricultural Extension and Community Development, Sokoine University of Agriculture, Morogoro, Tanzania.

<sup>3</sup>Department of Policy Planning and Management, Sokoine University of Agriculture, Morogoro, Tanzania.

<sup>1</sup>Corresponding Author : [agnessmetta8@gmail.com](mailto:agnessmetta8@gmail.com)

Received: 13 February 2025

Revised: 25 March 2025

Accepted: 12 April 2025

Published: 29 April 2025

**Abstract** - In some regions of Tanzania, including Morogoro, spice production is a significant economic activity. However, its full potential may not be realised due to the complex socio-cultural kinship that influences resource allocation and marketing strategies. Specifically, the role of matrilineal kinship in these processes has not been adequately explored. While matrilineal societies may have distinct patterns of resource ownership, decision-making, and distribution, their impact on the management of agricultural resources and commercialization of spice products remains under-researched. This study seeks to fill this gap by examining how matrilineal traditions affect the allocation of resources in cultivating spices and marketing its products in the Morogoro region of Tanzania. A mixed-methods approach was used to collect data. Quantitative data were collected through structured questionnaires to 121 respondents obtained through the probability sampling technique. Qualitative data were collected through focus group discussions from two groups, one group of 16 participants in each village, and key informant interviews with one Extension Officer and two village leaders. Findings reveal that while matrilineal systems grant women certain rights, such as land inheritance, decision-making remains male-dominated, particularly in critical aspects such as land use and sales of bulk spices. Household decision-making tends to be collaborative, but men often retain the final authority. The study concludes that gender dynamics continue to shape key decisions regarding land use and the bulk sale of spice products. The findings underscore the complexity of gender roles within matrilineal societies, where women's rights may not fully translate into control over economic resources.

**Keywords** - Decision Making, Marketing and Spice Products, Matrilineal Kinship, Resource Allocation.

## 1. Introduction

Agriculture remains a cornerstone of the economy in Tanzania [1], with the Morogoro Region serving as a hub for spice production, including cloves, cardamom, and cinnamon [2]. As agricultural practices in the region evolve, it becomes increasingly important to recognise the socio-cultural practices that influence resource allocation and marketing strategies [3]. One such practice is the matrilineal system, where property and family lineage are passed down through the maternal side [4]. This system has profound implications on gender relations, economic decision-making, and the distribution of resources within households.

In some regions, including Morogoro, spices are produced in matrilineal communities [5], which are characterized by a kinship system where lineage and inheritance are traced through women. In such societies, descent is typically through the female line, and children are affiliated with their mother's lineage. Common in the matrilineal belt of sub-Saharan Africa, anthropologists suggest that this kinship benefits women by offering increased support from their kin and diminishing the

authority of husbands over wives [6]. In the Luguru tribe in Morogoro, Tanzania, a matrilineal kinship system grants women autonomy in sexuality and reproduction [5]. These scholars noted that women symbolize the clan, with children inheriting the clan name. The woman's brother manages land and marriage matters. Divorce is not rare, and women retain custody of children and land, as seen in Kasanga, Morogoro. In matrilineal communities, benefit distribution varies due to unique dynamics in access to resources and inheritance. Women's access to land is often linked to men's non-agricultural activities, land policies, and residence patterns. Matrilineal resource access complexities, amid socio-economic changes and patriarchal state influence, have diverse implications for women. This highlights that benefit distribution is shaped by traditional inheritance, state-led land reforms, and contemporary changes, creating a distinct landscape for resource access [7].

The matrilineal kinship, which traces property, inheritance, and family lineage through the maternal line, places women in the centre stage regarding resource allocation and decision-making processes among families



and within the community [4]. According to [4], more often than not, women own the land in such kinship, thus placing them at the heart of agricultural production and distribution of labour and capital. This kinship, therefore, may further indicate the order in which resource priorities are directed, especially in spice farming, which has been a labour-intensive endeavour, requiring coordination of decisions with cooperation to achieve maximum efficiency and output [8]. The matrilineal kinship empowers women through economic and social powers to have a great voice in marketing most of these spice products [9], which would in turn lead to fair distribution of income in homes thus enhancing sustainability in community life. However, the system is not devoid of challenges, which may relate to conflicts between traditional norms and market demands that could reduce the efficiency of marketing processes [10]. According to Anderson and [11], such dynamics signal the importance of culturally sensitive strategies that help integrate matrilineal practices within larger economic frameworks.

In matrilineal communities, lineage and inheritance pass through female family members, granting women significant roles in governance and economic responsibilities. In Tanzania, spice farming faces challenges such as limited credit access, unreliable markets, post-harvest issues, and weak government support [12]. Further, classical inheritance systems and patriarchal land laws exclude women from accessing resources, which contrasts with matrilineal principles, making the division of benefits at the local level complex [13].

According to [5], land ownership in rural communities plays a vital role, serving as a cultural cornerstone for securing livelihoods, fostering economic growth, and promoting sustainable development. Gender relations continue to interfere with the culture and tradition of matrilineal communities. However, migrations have disrupted traditional matrilineal cultures in certain areas, particularly in the Coastal areas of Tanzania.

This transformation has resulted in a shift in land ownership from women to men, which contributes to global inequality where women hold less than 20 per cent of the world's land, even though they make up half of the population. As a result, this shift could influence spice farming operations in various ways, including altering decision-making processes that impact productivity, market access, and profitability [14]. With men now owning the land, there may be different priorities or approaches to spice farming that could impact the overall success of the operations. As emphasised by [15], the importance of matrilineal lineage culture provides favourable conditions for women to have access and ownership rights.

There has been extensive research on the economic aspects of agriculture in Tanzania. However, little has been devoted to how matrilineal values affect the provision of resources used for agricultural output and sales of produce. Specifically, there is limited knowledge of how

matrilineage-based systems influence the production and management of basic resources such as land, labour, and capital in the spice business. Research from other settings has suggested that matrilineal communities have a tendency to affect land ownership and labour allocation [16]. For instance, in the Indonesian Minangkabau community, women primarily oversee land succession and farm outputs [17]. Similarly, research in the Solomon Islands demonstrates how women in matrilineal communities are directly involved in decisions on land holdings and management of agricultural resources [18]. These findings suggest that matrilineal institutions play a significant role in shaping the nature of agricultural assets' distribution and use. Little research has been done on this matter in Tanzania, particularly in the spice market in the Morogoro Region. This study will address this gap by examining the role of matrilineal kinship in resource allocation, decision-making, and marketing of spice products in the Morogoro Region. The study will investigate whether the matrilineal system genuinely empowers women in these economic domains or whether patriarchal influence persists, affecting the equitable distribution of resources and market participation. By exploring this under-researched intersection of cultural traditions and agricultural economics, the study contributes to a deeper understanding of gender dynamics in rural Tanzania farming communities.

## 2. Literature Review

### 2.1. Empirical Literature Review

In research on gender, inheritance, and resource allocation in matrilineal and patriarchal arrangements, the interconnection of socio-cultural aspects, legality, and economic practice regarding women's resource access has been well intertwined. For example, [19] discusses the transformation of the literary representation of women's strengths in Kenyan literature and asserts that, by depending on men, female characters are also becoming resilient and full of ambitious spirit. Further, [20] explores the issue of land inheritance among women and how it displays contradictions between formal laws and informal practices against women, especially among patriarchal societies such as the Kikuyu. [21] Investigate the broader impact of colonial laws on inheritance rights, arguing that the tension between matrilineal and patrilineal systems exacerbates gender inequality. [22] investigate the gendered nature of property rights, emphasising how securing land rights for women is crucial for raising agricultural productivity and promoting long-term investments in land, which are vital for women's economic empowerment. [23] highlight gender biases in political processes and resource entitlements, underlining that access to resources such as labour and environmental goods is often biased toward men and thus provides a starting point for subsequent analysis of other gender-related challenges in resource allocation.

Empirical evidence from studies on matrilineal inheritance systems supports women's empowerment in resource allocation. [24] Analyses the effects of female land inheritance in Malawi and finds that this (land inheritance) will increase women's bargaining power in the household,

improving child health and household expenditures. [25] Provide an overview of women's roles in resource management in tropical dry forests, thus indicating the place of gender in resource management and conflict resolution. [26] Further extend the arguments that land tenure security is important for agricultural performance, especially for women in matrilineal societies. Additionally, matrilineal communities, such as the Minangkabau in Indonesia, grant women control over land inheritance [27]. Studies revealed that men often dominate economic decision-making processes [28]. This mirrors findings from patrilineal communities, suggesting that inheritance patterns alone may not ensure economic empowerment for women

[29] Further, clarify the barriers against women's securing land ownership even where legal rights exist. Despite these benefits, [30] and [31] outline major barriers women face in taking their rightful positions fully and actively in land and resource management decision-making. These barriers pertain to cultural and legal aspects. According to [32], the Kikuyu people of Kenya further exclude women through restrictive inheritance systems. Where a person dies intestate, gender gaps in access to land widen since there are no wills. These studies indicate gender biases in resource allocation, requiring policy reforms to address the same.

Further, literature on spice marketing and value chains identifies many economic opportunities and challenges related to women's resource allocation and market participation. Research in other agricultural economies highlights that women, even as primary cultivators, are often excluded from high-value markets due to perceptions of men as better negotiators [33]. Similar trends in Tanzania spice farming indicate that women handle local sales while men dominate bulk transactions [12].

[34] Present an in-depth review of the spice value chain in Ethiopia, paying more attention to problems at the level of local producers, especially regarding their inability to compete with big importers of commodities. They indicate possibilities for strength honing of supply chains through direct relationships between spice extraction companies and producer cooperatives. [35] In Tanzania, the commercialization of medicinal plants forms part of the burgeoning importance of traditional medicine in healthcare markets. [36] Points out the differences between men and women in resource access among Ethiopians, emphasizing targeted calls for interventions to enhance women's access to service and technology. [37] and [38] contributes to this discussion by analysing how socio-cultural contexts shape the economic behaviours of women, proposing that matrilineal systems may have other economic opportunities compared to patriarchal systems. [39] Made a gendered analysis of the grain maize value chain in Benin and key constraints inherent in such value chains while reinforcing the understanding of gender dynamics as a shaping factor of economic outcomes. [40] Discuss the negotiations women in coastal Kenya go through, using food provisioning to assert agency within the familial kinship. Lastly, [41]

explores the influence of socio-cultural embeddedness on women's entrepreneurship in India, indicating that the timing of marriage and socio-cultural context strongly affect how women seize economic opportunities. Although studies on matrilineal societies [6] and [7] provide valuable insights into inheritance and household roles, little is known about how these systems influence agricultural commercialization. Additionally, Tanzania studies (Additionally, Tanzania studies ([12] and [5] address challenges in spice farming but overlook the role of matrilineal structures in resource control and marketing. This research fills the gap by examining how matrilineal kinship influences decision-making and marketing strategies in Morogoro's spice sector.

## 2.2. Theoretical Framework

The current study was guided by Feminist Political Ecology (FPE) theory, which was first deployed in the work of Rocheleau, Thomas-Slayter and Wangari in their edited collection *Feminist Political Ecology: Global Issues and Local Experiences* (1996). Political Economy (political ecology) theory focuses on the influence of social organization on environmental resources ranging from climate change, urbanization, land use, and access to a resource in terms of who controls one's source of resources [42] and [43]. One such perspective stemming from critical social science is FPE (Feminist Political Ecology), which highlights the role of power relations in understanding resource management decisions and environmental governance. Thus, economic and social kinship in the subcontinent, for gender, underlines the intersection, rather than the separation, of gender and environment is a growing area of focus.

The Feminist Political Ecology framework is germane to this study because it complements the broader goal of comprehending the impact of matrilineal kinship on decision-making processes related to the management and marketing of spice products. In matrilineal societies, power relations around gender define who has control over and makes key decisions on the available resources. FPE allows for the scrutiny of these relations with particular interest in matrilineal women and how they position themselves in terms of engagement in resource management and economic activities. This theory helped evaluate whether the matrilineal mode encourages equal participation or contributes to the masking of inequities in distributing and controlling spices and other resources in the Morogoro Region. The use of FPE deepens this analysis as it allows for studying complex interactions of gender, cultural ideals and economic processes in matrilineal practices. The theory seeks to document women's experiences in these communities but, even more importantly, to emphasize the consequences of women's involvement in resource management and market activities. In addition, FPE's addressing of intersectional theory enables the analysis to consider social class, age and other demographic factors, including gender, thereby avoiding simplistic explanations of the processes of resource distribution and marketing.

### 3. Materials and Methods

The study was conducted in t Kinole Ward, which has six villages: Tandai, Amini, Kalundwa, Mangala, Lung'ala, and Ludewa. Kinole Ward has a population of Kinole 13,356 people, mainly inhabited by the Luguru tribe. Smallholder farmers in Kinole Ward cultivate crops such as bananas, common beans, cinnamon, pepper cones, ginger, mangoes, and black pepper for family consumption and income generation. Kinole Ward was purposefully selected because it hosts the headquarters of Chief Kingalu and, therefore, stands as a suitable study site for establishing how matrilineal cultural norms shape spice farming practices.

The study employed a cross-sectional study design, which is widely used because it is time and cost-effective as it allows data collection from a sample population at a single point in time. It is time and resource-efficient, hence appropriate for studies with time and budget limitations. Even though cross-sectional studies help inform population characteristics and develop preliminary evidence, they also possess limitations, particularly in causation, as point exposure and outcome variables are measured at the same time [45].

The study population was spice farmers, extension workers, and local leaders in Lung'ala and Tandai villages in Kinole Ward. The study used purposive and probability sampling techniques. Purposive sampling was used to select the study location, including Lung'ala and Tandai villages, due to the high prevalence of spice farming and matrilineal kinship. The study sample size was 121, obtained through a probability sampling technique where farmers were selected randomly. Tandai Village provided 61 participants, and Tandai Village provided 60 respondents.

Quantitative data were collected through structured questionnaires with farmers, and qualitative data came from two focus group discussions conducted by 16 participants, 8 in each village, due to gender representation, farming experience, and involvement in decision-making among spice farming households to represent different perspectives. In addition, Key Informant Interviews (KII) were conducted with one Extension Officer and two village leaders due to their expertise in spice farming and handling of community resources.

This study used an embedded design of a mixed-method approach, combining both quantitative and qualitative data for in-depth analysis in the exploration of gender dynamics in spice farming at the household levels. Quantitative data were collected through kinship interviews using a pre-designed questionnaire with numerical information regarding resource allocation and decision-making in spice farming, using scaled items to measure the extent of participation and influence among household members. In qualitative approaches, the KII included a checklist with one Extension Officer; there were also participatory observations and in-depth FGDs with local leaders and experienced farmers who were deemed important in providing the necessary information on gender

relations and the effect of matrilineal kinship on the research setting. Thematic analysis was applied to the qualitative data, which involved coding and developing themes based on how matrilineal kinship influences decision-making regarding resource allocation and marketing of spice products. Thematic analysis was done through six phases, encompassing familiarising oneself with the data through readings, identifying initial codes, refining themes, and linking them with illustrative data extracts supporting the analysis. SPSS software was used for quantitative data, and thematic analysis was used for qualitative data.

### 4. Results and Discussion

#### 4.1. Demographic Information of the Respondents

##### 4.1.1. Age of the Respondents

The results and discussion may be presented separately or in one combined section and optionally divided into headed subsections. Table 1 presents the age distribution of respondents, indicating that the majority fall within the 30–39 age group (35.54%), followed by those aged 40–49 (30.58%) years. Respondents aged 50–59 years account for 17.36 per cent, while younger individuals aged 20–29 comprised 13.22 per cent. The smallest group is those aged 60–69, comprising only 3.31 per cent of the respondents. This respondent's age distribution reveals insights into the reproductive potential, labour, and dependency dynamics within the community. The majority (66.12%) of the respondents are in the prime working-age groups of 30–49 years, indicating a strong labour force potential. Those aged 20–29 (13.22%) may represent younger adults entering the labour market or reproductive age, contributing to future population growth. Respondents aged 50–59 (17.36%) are likely transitioning from active labour to a dependent phase, while the smallest group (60–69, 3.31%) reflects a minimal proportion of older dependents, suggesting a low elderly dependency ratio.

##### 4.1.2. Sex of the Respondents

The sex of respondents revealed that females outnumbered males at 70.25 per cent while males constituted just 29.75 per cent. Higher female dominance of respondents indicates more active and dynamic female participation in agricultural farms in the farming area. The increased role they play in the agricultural farms can be related to socio-economic factors, customs in farmhand labour distribution, or agricultural activity based on need due to this enterprise being the predominant livelihood resource. These findings underscore the importance of considering gender dynamics in interpreting agricultural participation and making recommendations because women's dominant role in agriculture can influence productivity, decision-making, and access to resources, as shown in Table 1.

##### 4.1.3. Marital Status of the Respondents

The marital status distribution of respondents shows that the majority (76.03%) are married, reflecting a population primarily composed of family units. A smaller proportion (14.05%) of respondents are single, while divorced/separated individuals and widows/widowers represent 4.96 per cent of the sample. This marital

composition suggests that household dynamics and decision-making processes in the study area are likely influenced by married individuals, potentially shaping perspectives on responsibilities, resource allocation, and economic roles.

#### 4.1.4. Education Level of the Respondents

The respondents' education level distribution indicates that the majority have a primary education (53.72%), followed by those with secondary education (33.06%). A smaller proportion (10.74%) are classified as literate without formal schooling, while only 2.48 per cent have attained tertiary education. This distribution reflects a community with a foundational level of education concentrated at the primary and secondary stages, with minimal representation in higher education. The low percentage of tertiary-educated respondents suggests limited access to advanced education, which may impact the community's economic opportunities, decision-making

capacity, and skill development. This emphasizes the importance of educational interventions to improve higher education attainment.

#### 4.1.5. Main Occupation of the Respondents

The occupational distribution of respondents reveals that the majority (71.90%) are smallholder farmers, highlighting agriculture as the primary livelihood activity in the community. Businesspersons comprise 23.97 per cent, indicating that a smaller yet significant proportion is engaged in trade or entrepreneurship. Employees (1.65%) and private sector employees (2.48%) represent a minimal fraction of the population, indicating limited formal employment opportunities. This occupational kinship underscores the community's heavy reliance on agriculture, with supplemental contributions from small-scale business activities. The low representation of employees indicates potential gaps in formal economic sectors and the need to diversify livelihood opportunities.

Table 1. The demographic information of the respondents

Variable	Categories	Frequency	Percentage (%)
Age	20 – 29	16	13.22
	30 – 39	43	35.54
	40 – 49	37	30.58
	50 – 59	21	17.36
	60 – 69	4	3.31
Sex	Female	85	70.25
	Male	36	29.75
Marital status	Single	17	14.05
	Married	92	76.03
	divorced/separate	6	4.96
	widow/widower	6	4.96
Education level	Literacy	13	10.74
	Primary	65	53.72
	Secondary	40	33.06
	Tertiary	3	2.48
Occupation	Employee	2	1.65
	private sector employee	3	2.48
	smallholder famer	87	71.90
	Businessman	29	23.97

## 4.2. Matrilineal Kinship Impact Decisions over Resource Allocation and Marketing of Spice Products

The analysis shows that the community's matrilineal kinship does not significantly influence decision-making processes related to resource allocation and marketing of spice products. While some variables suggest association trends (e.g., higher odds ratios for male control over decision-making), none of these associations are statistically significant ( $p > 0.05$ ). This indicates that a community being matrilineal does not play a decisive role in shaping household and marketing dynamics and that other socio-economic factors are likely to have a stronger influence.

### 4.2.1. Between Matrilineal Kinship and Allocation of Resources

The results show the existence of a substantial barrier to resource allocation against women in matrilineal societies. Women's Limited access to resource allocation

had an AOR of 25.2870 (95% CI: 0.0464–13,776.61;  $p = 0.315$ ), while male control over land and decision-making had an AOR of 15.267 (95% CI: 0.0417–5,607.505;  $p = 0.366$ ) (Table 2). While these results indicate that men mainly control the resources, the association was insignificant. Shared decision-making within constraints had an AOR of 2.1596 (95% CI: 0.1328–35.115;  $p = 0.588$ ), which demonstrates that partnership at this level was limited between genders, and male-dominated decisions in resource allocation had an AOR of 5.7024 (95% CI: 0.5120–63.5103;  $p = 0.157$ ).

FGDs reinforced the quantitative results by showing that women face challenges accessing and controlling resources. As one of the FGD participants explained,

*"Access to farmland and tools is often limited to men, even though women are the primary cultivators in our*

households, and when it comes to resource allocation, men usually decide who gets what. Women often have to negotiate for resources, even what they need to sustain their families" (FGD, Tandai village, October 2024).

Participants in the FGD had the following to say on the plight of younger women:

*"In our matrilineal community, the land is traced through women, but in practice, men still manage and allocate it"* (FGD participant, Lung'ala village, October 2024).

The above testimonies indicate that the cultural constructs of matrilineal inheritance and the realities around natural resource control are at substantive variance, consistent with the findings from statistical trends in the quantitative analysis.

#### 4.2.2. Relationship between Matrilineal Kinship and Decision Making

The analysis revealed important insights on resource allocation and decision-making in matrilineal societies. Regarding decision-making in resource allocation, the male head of a household was taken as the reference category. Female heads of households were less likely to make decisions: AOR = 0.152; 95% CI: 0.0007–33.693;  $p = 0.494$ , whereas elders or extended family members were more likely to influence decisions: AOR = 1.942; 95% CI: 0.0198–3,189.570;  $p = 0.776$ . Joint decisions by a husband and wife showed limited likelihood: AOR = 0.162; 95% CI: 0.0080–3.2671;  $p = 0.235$ . From a resource allocation perspective, women's limited access showed a high likelihood: AOR = 25.2870; 95% CI: 0.0464–13,776.61;  $p = 0.315$ , while male control of land and decision-making stood at AOR = 15.267; 95% CI: 0.0417–5,607.505;  $p = 0.366$ . Spice marketing decisions were the reference category for collaborative decision-making by both genders. Male-only decision-making had a lower likelihood AOR = 0.18848; 95% CI: 0.02333–1.5224;  $p = 0.117$ , while female-only decisions AOR = 0.59851; 95% CI: 0.01221–29.3349;  $p = 0.796$  and quality control decisions based on traditional knowledge and market preferences AOR = 0.63069; 95% CI: 0.01421–27.985;  $p = 0.812$  had diverse but statistically insignificant associations (Table 3). These findings imply gendered disparities in resource allocation and decision-making processes.

The findings indicate that in the Luguru tribe in the Morogoro Region, matrilineal kinship does not significantly influence decision-making processes related to resource allocation and marketing of spice products. This means that women are not entirely responsible for any decisions on resource allocation, including selling products from spice farming. These findings concur with findings from other studies (i.e., [46], [47] and [48]); in reality, matrilineal kinships seem to bear little influence on decision-making processes within particular contexts, mainly where shifts of economic roles toward males occur in local communities. For instance, a study by [46] noted that in Minangkabau fishing communities, traditional matrilineal norms do not

weigh heavily on daily decision-making as men assume primary economic responsibilities.

These results show that matrilineal kinship does not significantly influence decision-making processes. These findings do not concur with the findings in other studies (i.e., [50], [51], [52]). [50] Note that in matrilineal societies, older women are usually the powerhouse of decision-making processes on even matters regarding childbearing, whereby they usually advise the younger ones based on traditional knowledge and local cosmology.

Also, [53] revealed that financial decisions within matrilineal cultures, as recorded in the Khasi tradition, have shown that women control household finances.

Findings from FGD show that matrilineal kinship had a weak impact on decisions on resource allocation and marketing of spice products. This means that females are not entirely responsible for allocating resources even though they live in matrilineal societies; instead, decisions are made collaboratively. In terms of decision-making within the household, respondents noted that the decision is often collaborative, with both a husband and wife discussing and agreeing on key issues, such as which crops to plant. In terms of financial management, they also share responsibility. Both are actively involved in the process, from production to managing the proceeds, thus promoting a sense of teamwork and mutual accountability within the family, even though they agreed that men have the final say. Also, respondents further added that although women still have authority in matrilineal communities, men tend to be practical when deciding. Accordingly, one of the FGD respondents noted.

*"Though our culture grants rights to women to inherit the land, men control the choice of the use of the land, especially the cultivation and selling of crops. Men are concerned about utilitarian aspects like market forces and profitability. Though women yield power in inheritance, men eventually decide on the use of the land and the use of money. This is a balance of input, yet ultimate control resides with the men in most instances"* (FGD participant, Lung'ala village, October 2024)

This observation highlights the continuity of patriarchy even in matrilineal systems, where even though women are entitled to land inheritance rights, men still dominate critical decision-making on critical issues. The underlying power dynamics suggest that traditional patriarchal trends shadow matrilineal ideals, particularly where economic and resource allocation are concerned. While women dominate certain issues, men command final land use and economic authority. This paradox reflects a complex interaction between patriarchal dominance and matrilineal tradition, where male dominance succeeds despite the matrilineal nature of society.

Besides, findings from the FGDs reveal a complex interaction between matrilineal culture and deeply rooted

patriarchal kinship in domestic decision-making regarding resource distribution and marketing of spice products. Even though matrilineal practice confers women the rights to inheritance and some authority, domestic decision-making remains largely male-dominated. This is particularly evident in the role of the maternal uncle, who, traditionally, has the right to decide for the entire family on matters including land use and the sale of crops despite the fact that inheritance is traced through the female line. There is also a collaborative relationship between a wife and husband for crop selection and money management, where both are actively involved. However, the bargain that men typically get for having the final say is evidence of the long-term dominance of patriarchal principles, even in matrilineal settings. This aligns with studies indicating that matrilineal inheritance does not always translate into autonomy for women due to entrenched societal expectations and gender roles ([54]; [55] and [56] as indicated in this quote from one of the FGD participants,

*"Even though the inheritance goes through the women, it is the mother's brother who decides on behalf of the whole family what to do with the land and what crops to sell. We can discuss among ourselves what crops to choose, but the decision is in his hands. That is how it is in our society, even though women are legally entitled to inheritance"(FGD participant, Tandai village, October 2024).*

This observation emphasizes the disparity between theoretical empowerment provided to women through matrilineal systems and the practice of patriarchal dominance. Matrilineal societies provide women with some authority, for example, over inheritance, but left mainly to the hands of men, specifically maternal uncles, who control issues such as land management and the sale of crops. Thus, this is a system where women are observed to have rights on paper, but in reality, their voices are subdued. Patriarchal norms still restrict individuals from attaining full gender parity in decision-making in matrilineal communities.

#### 4.2.3. Relationship between Matrilineal Kinship and Marketing of Spice Products

The results on the roles of gender and matrilineal kinship in spice marketing reveal an interesting trend. Using women, who are key marketers, as the reference category, and men who handled bulk or commercial sales, the trend showed men having an AOR of 0.0136, 95% CI: 0.00005–3.3715;  $p = 0.127$ , indicating that they (men) are less likely to be responsible for spice sales, although the result was not significant. In addition, the results showed an AOR of 0.0803 for joint family efforts or shared responsibility, 95% CI: 0.0004–16.0872;  $p = 0.351$ . Regarding traditional practices, the reference category was women-led decision-making. Thus, a family or clan involvement in sales had an AOR of 0.132 (95% CI: 0.00095–18.428;  $p = 0.422$ ), and male-led decision-making had an AOR of 0.2032 (95% CI: 0.0120–3.4314;  $p = 0.269$ ), indicating the limited magnitude of an effect without reaching the statistical significance threshold. On the influence of the matrilineal kinship on marketing decisions, men dominated marketing decisions

with an AOR of 0.3631 (95% CI: 0.0229–5.7354;  $p = 0.472$ ), implying some level of male dominance while focusing on expanding to larger markets revealed an AOR of 1.5968 (95% CI: 0.04867–52.3878;  $p = 0.793$ ), with no strong statistical association (Table 4).

Also, results on the marketing issue show that men dominate the sale of spices, which are sold in bulk, while women are primarily involved in small-scale sales. Accordingly, one of the informants noted,

*"Most of the time men are seen as better negotiators for the market deals, so they take the lead. Women mostly are involved in sell at the local market or process spices for home use."*

This supports the above quantitative results, which highlight men's dominance in pricing and marketing decisions. Participants further noted that the societal perception of men as breadwinners perpetuates this situation even in matrilineal settings.

The findings also showed a persistent gendered division of labour roles, with men dominating bulk sales of spices. At the same time, women mainly engage in small-scale, localized trade or processed spices for consumption in the homestead. This is supported by broader evidence from gender studies in agriculture, indicating how men often dominate high-value markets because of perceived superior negotiation abilities and their role as breadwinners [33] and [56]. This is supported by the village chairperson, who noted that men are seen as better negotiators for market deals; this indicates how social norms influence market participation in ways that propagate gender inequalities. Even in matrilineal settings, where women traditionally hold inheritance rights, these roles and perceptions limit women's access to higher-value markets and decision-making power.

The results show that men dominate bulk sales of spices in the market, while women mainly engage in small-scale, localized trade or process spices for consumption. These findings are consistent with findings in other studies indicating that women's participation in agricultural marketing tends to be confined to local, less profitable markets, often due to resource, network and social capital constraints required for entry into larger-scale markets [57]. The framing of men as breadwinners, even in matrilineal societies, also underlines how patriarchal ideologies may be deep-seated in influencing economic roles. This is further supported by the above-cited quantitative results, which denote men's dominance in pricing and marketing decisions, prioritising structural and cultural bias that marginalizes women's economic contributions beyond subsistence or small-scale activities.

Agricultural Education was also another dominant topic among the FGDs. Higher education was reported as generally lacking among the community members, leading to a lack of awareness of implementing new marketing strategies effectively. As one of the FGD participants admitted,



*“We mostly depend on traditional methods because most of us did not get the opportunity to advance our education beyond primary school, limiting our ability to adopt modern techniques in modern marketing to get a better price” (FGD participant Lung’ala Village, October 2024).*

This observation corroborates the findings of a study on the low level of agricultural education and the implication on market participation [58]. Lack of this education restricts people’s ability to adopt new marketing strategies, which further affects their ability to receive better product prices. Thus, a lack of education directly affects farmers’ market participation and economic performance.

Results indicate that agricultural education on spice farming is one of the major determinants of marketing strategies and market participation in the community. A very low level of this education among the respondents implies a major barrier among the people against adopting modern marketing practices due to a lack of negotiation skills. The dependence on traditional techniques, as echoed in the Focus Group Discussion, is attributed to a lack of sufficient education. This is unfortunate because a low level of education may limit access to and effective utilization of information for market trends, price bargains, and other innovative ways of marketing their produce. These findings are supported by findings in previous studies that identified education as a factor in increasing farmers’ access to markets and, hence, in increasing their bargaining power [59], [60] and [61]. A Lack of education makes farmers unable to explore various available market opportunities and even compete in high-value markets [62]. Focused educational programmes, skill-enhancing workshops, and extension services in this regard may help community

members overcome such barriers and enhance their market outcomes.

This calls for addressing the gap by strategically empowering women through targeted interventions, such as training in market negotiation, access to capital, and integration into value chains. Approaches such as this have seen success elsewhere in matters such as women’s collective marketing groups, which tend to better women’s bargaining power and access to more lucrative markets [49]. Challenging societal perceptions through gender-sensitive awareness programmes and policies could help bring forth a supportive environment that recognizes and promotes the economic agency of women in both matrilineal and patriarchal settings.

#### 4.3. Performance Measures for Logit Model

The logistic regression results indicate the model demonstrates a strong overall performance in accurately classifying cases, with an accuracy rate of 92.93 per cent (Table 5). However, the sensitivity is low (33.33%), implying that the model struggles to identify positive cases of procedure cancellation correctly. Conversely, the specificity is very high (98.89%), reflecting the model’s strength in correctly identifying non-cancellation cases. The Area Under the Curve (AUC) value of 0.8469 suggests good discriminative ability, exceeding the moderate predictive power indicated earlier (AUC ~0.7036 in Figure 1). The Hosmer-Lemeshow test result ( $\chi^2 = 61.65$ ,  $p = 0.6290$ ) suggests that the model fits the data well. In conclusion, the model performs well in overall accuracy and specificity, but its predictive power for identifying procedure cancellations (sensitivity) is limited.

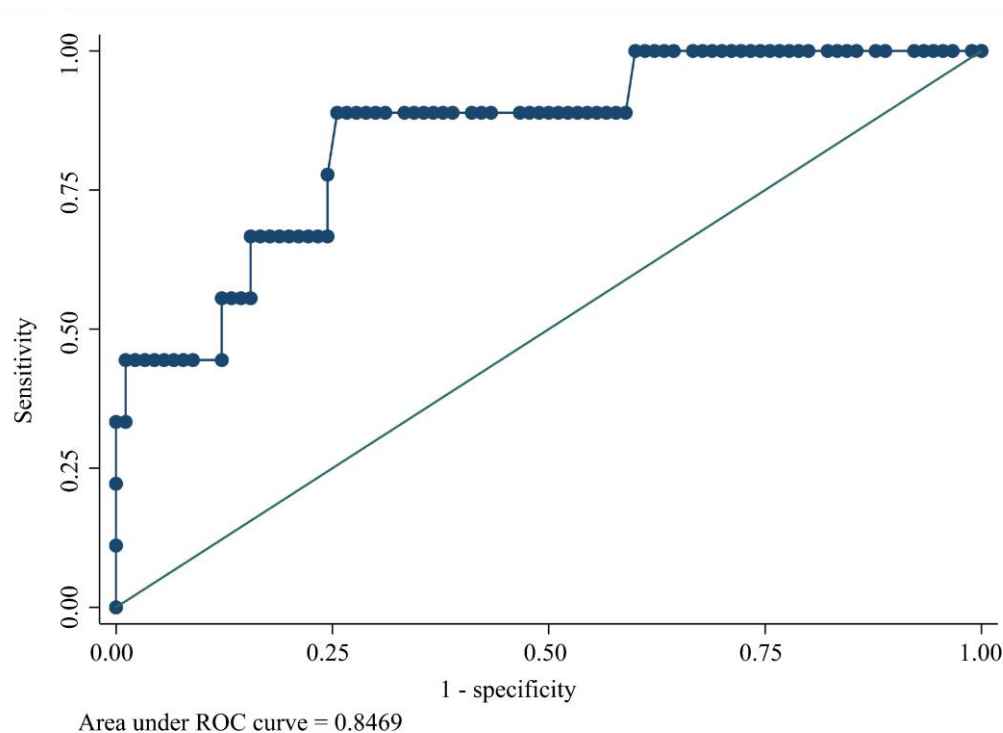


Fig. 1 Area under the curve (AUC) for the logit model



The high logistic regression model specificity of 98.89 per cent and overall accuracy of 92.93 per cent assure the reliability of the results. In comparison, the low sensitivity of 33.33 per cent reflects challenges in identifying subtle effects of matrilineal kinship. These findings agree with a study [44], revealing that gendered power dynamics' complexity influences economic outcomes.

The current study's findings have practical implications for improving gender equity and economic outcomes in matrilineal communities. They also point to a need for targeted interventions that would enhance the role of women

in decision-making and their participation in high-value markets through education, capacity building, and access to financial resources. The encouragement of joint decision-making processes and challenging societal norms that limit women's roles in marketing and resource allocation can create more inclusive practices. These findings have important implications for policymakers and development programmes aiming to develop gender-sensitive policies, support women-led cooperatives, and promote alternative livelihood opportunities that could help improve household welfare and economic resilience within matrilineal societies.

**Table 2. Multivariate logistic regression analysis on relationship between matrilineal kinship and allocation of resources**

Is your community matrilineal?	Category	Adjusted odds ratio	95% confidence interval		p-value
Matrilineal resource distribution	female and children	Ref			
	Limited access for women in resource allocation	25.2870	0.0464	13776.61	0.315
	Male Control over land and decision-making	15.267	0.0417	5607.505	0.366
Matrilineal control over resources	Female Authority in Resource Allocation	Ref			
	Collaborative Input within Constraints	2.1596	0.1328	35.115	0.588
	Male Authority in Decision-Making	5.7024	0.5120	63.5103	0.157
Female Land and Resource Control	Women's leadership in pricing decisions	Ref			
	men dominate in decision-making over pricing and sales	9.3065	0.382	0.0625	1384.79
	Women and men	3.0386	0.658	0.0222	414.3658

Source: Field data 2024

**Table 3. Multivariate logistic regression analysis on the relationship between matrilineal kinship and decision-making**

Is your community matrilineal?	Category	Adjusted odds ratio	95% confidence interval		p-value
Decision Maker Role	male head of household	Ref			
	female head of household	0.152	0.0007	33.693	0.494
	elders or extended family member	1.942	0.0198	<sup>3</sup> 189.570	0.776
	joint family decision (husband and wife)	0.162	0.0080	3.2671	0.235
Matrilineal Influence	female and children	Ref			
	Limited access for women in resource allocation	25.2870	0.0464	13776.61	0.315
	Male Control over land and decision-making	15.267	0.0417	5607.505	0.366
Market Decision-Making Process	collaborate decision-making based on roles (both male and female)	Ref			
	decision-making based on male	0.18848	0.117	0.02333	1.5224
	decision-making based on female	0.59851	0.796	0.01221	29.3349
	quality control based on traditional knowledge and market preferences	0.63069	0.812	0.01421	27.985

Source: Field data 2024

**Table 4. Multivariate logistic regression analysis on the relationship between matrilineal kinship and marketing**

Is your community matrilineal?	Category	Adjusted odds ratio	95% confidence interval		p-value
Marketing Responsibilities	women as key marketers	Ref			
	men handling bulk or commercial sales	0.0136	0.00005	3.3715	0.127
	joint family efforts	0.0803	0.0004	16.0872	0.351
Traditional marketing Practices	decision-making led by women	Ref			
	family or clan involvement in sales	0.132	0.00095	18.428	0.422
	decision-making led by men	0.2032	0.0120	3.4314	0.269
Women Role Marketing	Women's Authority in Sales Decisions				
	Men's Dominance in Marketing Decisions	0.3631	0.0229	5.7354	0.472
	Focus on Expanding to Larger markets	1.5968	0.04867	52.3878	0.793

Source: Field data 2024

**Table 5. Performance measures for logit model**

Accurate rate.	Sensitivity.	Specificity.	AUC (ROC CURVE).	AIC	BIC	Pseudo R <sup>2</sup>	Hosmer Leme shows test
92.93%	33.33%	98.89%	0.8469	80.153	129.460	Adj R <sup>2</sup> = 0.3012	chi2(66) = 61.65 Prob >chi2 = 0.6290

## 5. Conclusion

The evidence of this research is that while matrilineal kinship systems in the Luguru tribe Morogoro provide inheritance rights to women, their (women's) dominance over decision-making regarding the utilization of resources and marketing of spice products remains limited. Despite the customary practices granting women the right to inherit the land and other properties, the maternal uncle is usually entitled to decide how such property will be utilised, including its management and selling of crops. On the other hand, even though women have traditionally played a pivotal role in selecting a chief and managing other ritual duties, the chief will always be a male, once more the testament to the enduring dominance of patriarchal systems. Moreover, the study found that agricultural education is a significant determinant of market participation. Because of low levels of education in the community, farmers face significant limitations in adopting new marketing practices, and therefore, their competitiveness in high-value markets is limited. The findings underscore the persistence of patriarchal values, even in matrilineal communities, and underscore the central role of education and gender relations in shaping economic opportunities. Furthermore, this study advances existing knowledge on matrilineal kinship by

uncovering the hidden economic inequalities within Tanzanian spice farming communities. Unlike prior studies focusing on inheritance and household roles, this research uniquely examines the commercialization aspect, revealing how matrilineal systems, despite granting women inheritance rights, fail to translate into control over high-value market transactions. By bridging the gap between cultural traditions and market dynamics, this work offers a fresh perspective on the complexities of gender, power, and economic participation in matrilineal agricultural societies.

## Funding Statement

The author entirely funded this research. There were no outside grants, sponsorships, or financial assistance provided by any entity. The work was completed on an independent basis, financing all costs personally.

## Acknowledgments

The author would like to thank supervisors (Authors 2 and 3) for giving their time and feedback on this research. Appreciation is given to peers and mentors for feedback and guidance throughout the research and writing of the manuscript. Authors' contribution is based on the number given by each Author.

## References

- [1] Ani Rudra Silwal, "Three Essays on Agriculture and Economic Development in Tanzania," Doctoral Dissertation, University of Sussex, pp. 1-140, 2023. [\[Google Scholar\]](#) [\[Publisher Link\]](#)
- [2] Ainessy Ngolle, "Contribution of Spice Farming to Household's Income on the Slopes of Uluguru Mountains, Morogoro Tanzania," Master's Thesis, Sokoine University of Agriculture, pp. 1-67, 2021. [\[Google Scholar\]](#) [\[Publisher Link\]](#)
- [3] Vuyiseka Majali, "The Socio-cultural Factors Affecting the Participation of Women in Agricultural Development: Khezana Village in Alice District," Doctoral Dissertation, University of Fort Hare, pp. 1-145, 2012. [\[Google Scholar\]](#) [\[Publisher Link\]](#)

- [4] Agnes Andersson Djurfeldt et al., ““The Family Farms Together, The Decisions, However are Made by the Man”—Matrilineal Land Tenure Systems, Welfare and Decision Making in Rural Malawi,” *Land Use Policy*, vol. 70, pp. 601-610, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [5] Nelly John Babere, and Beatrice Nepo Mbeya, “Endangered Culture The Changing Landscape of Matrilineal Land Ownership in Rural Communities in Kasanga Settlement in Morogoro, Tanzania,” *African Journal of Land Policy and Geospatial Sciences*, vol. 5, no. 1, pp. 200-214, 2022. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [6] Sara Lowes, “Matrilineal Kinship and Spousal Cooperation: Evidence from the Matrilineal Belt,” *Unpublished Manuscript*, pp. 1-59, 2018. [[Google Scholar](#)] [[Publisher Link](#)]
- [7] Amanda Lea Robinson, and Jessica Gottlieb, “How to Close the Gender Gap in Political Participation: Lessons from Matrilineal Societies in Africa,” *British Journal of Political Science*, vol. 51, no. 1, pp. 68-92, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [8] Huriatu Anafo Alidu, “Land Allocation to Women: A Case Study of Two Communities in the Northern Region of Ghana,” *United Nations University Land Restoration Training Programme*, pp. 1-51, 2015. [[Google Scholar](#)] [[Publisher Link](#)]
- [9] Minakshi Keeni et al., “Women Empowerment in a Rural Matrilineal Society of Meghalaya, India,” *Journal of Asian Rural Studies*, vol. 2, no. 2, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [10] C. Subramanian, “Overcoming Traditional Norms: Exploring the Role of Education in Advancing Women's Socio-Economic Status in Palakkad, Kerala,” *Journal of Namibian Studies*, vol. 34, 2023. [[Google Scholar](#)] [[Publisher Link](#)]
- [11] Siwan Anderson, and Chris Bidner, *An Institutional Perspective on the Economics of the Family*, Handbook of the Economics of the Family, vol. 1, no. 1, pp. 443-500, 2023. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [12] John Henry Kwingwa, “Challenges Faced by Smallholder Spice Farmers in Controlling Market in Tanzania: A Case of Morogoro District,” Doctoral Dissertation, Sokoine University of Agriculture, 2022. [[Google Scholar](#)]
- [13] Abdul Mutolib et al., “Gender Inequality and The Oppression of Women within Minangkabau Matrilineal Society: A Case Study of the Management of Ulayat Forest Land in Nagari Bonjol, Dharmasraya District, West Sumatra Province, Indonesia,” *Asian Women*, vol. 32, no. 3, pp. 23-49, 2016. [[Google Scholar](#)] [[Publisher Link](#)]
- [14] Cheryl Doss et al., “Gender Inequalities in Ownership and Control of Land in Africa: Myth and Reality,” *Agricultural Economics*, vol. 46, no. 3, pp. 403-434, 2015. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [15] Rachel Brulé, and Nikhar Gaikwad, “Culture, Capital, and The Political Economy Gender Gap: Evidence from Meghalaya’s Matrilineal Tribes,” *The Journal of Politics*, vol. 83, no. 3, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [16] Eva Tène, *On the Historical Roots of Gender Norms: Evidence from Matrilineal Societies in Sub-Saharan Africa*, Mimeo, 2021. [[Google Scholar](#)]
- [17] Wahyudi David, and Angelika Ploeger, Role of Matrilineal System, Gender and Education in Traditional Farming Systems and Food Culture in West Sumatra Indonesia, *Conference: 17<sup>th</sup> IFOAM Organic World Congress*, pp. 1-4, 2011. [[Google Scholar](#)]
- [18] Kristina E. Stege, “Land and Women: The Matrilineal Factor: The Cases of the Republic of the Marshall Islands, Solomon Islands and Vanuatu,” Pacific Islands Forum Secretariat, pp. 1-138, 2008. [[Google Scholar](#)] [[Publisher Link](#)]
- [19] Eszter Lindholm-Csányi, “The Powers of the Weak”. Representations of Women’s Power in Kenyan Literature,” pp. 1-91, 2007. [[Google Scholar](#)] [[Publisher Link](#)]
- [20] Benjamin Linkow, “Whose Incentives? The Evolution of Inheritance Practices, Intergenerational Conflict, and Women’s Control over Land in Rural Kenya,” *Munich Personal RePEc Archives*, pp. 1-53, 2010. [[Google Scholar](#)] [[Publisher Link](#)]
- [21] David Gever Ishor et al., “Sociological Analysis of the Changing Patterns of Inheritance and Succession in Traditional African Society,” *Sociological Analysis*, vol. 3, no. 18, pp. 63-68, 2013. [[Google Scholar](#)]
- [22] Marco Casari, and Maurizio Lisciandra, “Gender Discrimination and Common Property Resources: A Model,” *Munich Personal RePEc Archives*, pp. 1-28, 2014. [[Google Scholar](#)] [[Publisher Link](#)]
- [23] Susan Joekes, Cathy Green, and Melissa Leach, “Integrating Gender into Environmental Research and Policy,” *Working Paper Series*, pp. 1-62, 1996. [[Google Scholar](#)]
- [24] Nicholas T. Garcia, “Matrilineal Asset Inheritance, Female Bargaining Power, and Household Welfare in Malawi,” Thesis, University of San Francisco, pp. 1-32, 2014. [[Google Scholar](#)] [[Publisher Link](#)]
- [25] C.J.P. Colfer, M. Elias, and R. Jamnadass, “Women and Men in Tropical Dry Forests: A Preliminary Review,” *International Forestry Review*, vol. 17, no. 2, pp. 70-90, 2015. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [26] Ruth S. Meinzen-Dick et al., “Gender, Assets, and Agricultural Development Programs: A Conceptual Framework,” *CAPRI Working Paper*, pp. 1-38, 2011. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [27] Selinaswati Selinaswati, “Women in Politics in Matrilineal Society (A Case Study of West Sumatra, Indonesia),” Doctoral Dissertation, Deakin University, pp. 1-243, 2014. [[Google Scholar](#)]
- [28] Maryam Jamilah, Satria Ananda, and Asrinaldi, “Resilient Traditions, Modern Realities: Women's Agency in Minangkabau's Political Economy,” *Journal of Southeast Asian Human Rights*, vol. 8, no. 1, pp. 89-114, 2024. [[Google Scholar](#)] [[Publisher Link](#)]
- [29] Cheryl Doss, Ruth Meinzen-Dick, and Allan Bomuhangi, “Who Owns the Land? Perspectives from Rural Ugandans and Implications for Large-Scale Land Acquisitions,” *Feminist Economics*, vol. 20, no. 1, pp. 76-100, 2014. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]

- [30] Charles Kamau Wambu, “Influence of Selected Socio-cultural Factors on Gender Participation in Management of Water Projects in Njoro Sub-County, Nakuru Kenya,” Thesis, Egerton University, pp. 1-144, 2017. [[Google Scholar](#)]
- [31] Madison Shaffer, “Empowering Women Through Land: An Analysis of the Barriers in Accessing Land Rights within Kisumu County, Kenya,” *Independent Study Project*, pp. 1-57, 2019. [[Google Scholar](#)] [[Publisher Link](#)]
- [32] Frank F.K. Byamugisha, and Nancy Dubosse, “The Investment Case for Land Tenure Security in Sub-Saharan Africa: A Cost–Benefit Analysis,” *Journal of Benefit-Cost Analysis*, vol. 14, no. S1, pp. 272-300, 2023. [[Google Scholar](#)] [[Publisher Link](#)]
- [33] Jemimah Njuki et al., “Linking Smallholder Farmers to Markets, Gender and Intra-Household Dynamics: Does the Choice of Commodity Matter?,” *The European Journal of Development Research*, vol. 23, pp. 426-443, 2011. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [34] Mathewos Agize, and Lieke Van Der Zouwen, “Spice and Medicinal Plants Production and Value Chain Analysis from South-West Ethiopia,” *Journal of Pharmacy and Alternative Medicine*, vol. 10, pp. 126-144, 2016. [[Google Scholar](#)]
- [35] Eziacka Mathew Mpelangwa et al., “Effect of Changes in Business Environments on Traded Medicinal Plants Products in Tanzania: An Explorative Study,” *Heliyon*, vol. 8, no. 9, pp. 1-10, 2022. [[Google Scholar](#)] [[Publisher Link](#)]
- [36] A. Gebremichael, “Role of Women in Value-chain Systems of Vegetables and Spices in Atsbi Wemberta Woreda, Eastern Zone of Tigray,” Thesis, Mekelle University, 2009. [[Google Scholar](#)] [[Publisher Link](#)]
- [37] Laura Hobson Herlihy, “The Discourse of Romantic Love on the Miskito Coast,” *Agenda*, vol. 27, no. 2, pp. 76-85, 2013. [[Google Scholar](#)] [[Publisher Link](#)]
- [38] Debosree Banerjee, “Ethnicity and Gender Differences in Risk, Ambiguity Attitude, *GlobalFood Discussion Papers*,” Working Paper, pp. 1-25, 2014. [[Google Scholar](#)] [[Publisher Link](#)]
- [39] S. Adetonah et al., “Gender Analysis in Grain Maize Value Chain in Northern and Central Benin,” *International Journal of Research in Social Sciences*, vol. 6, no. 7, pp. 51-64, 2016. [[Google Scholar](#)] [[Publisher Link](#)]
- [40] Nozomi Kawarazuka, Catherine Locke, and Janet Seeley, “Women Bargaining with Patriarchy in Coastal Kenya: Contradictions, Creative Agency and Food Provisioning,” *Gender, Place & Culture*, vol. 26, no. 3, pp. 384-404, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [41] Meghna Chhabra, Lata Bajpai Singh, and Syed Asif Mehdi, “Women Entrepreneurs’ Success Factors of Northern Indian Community: A Person–environment Fit Theory Perspective,” *Journal of Enterprising Communities: People and Places in the Global Economy*, vol. 17, no. 6, pp. 1293-1314, 2023. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [42] Rebecca Elmhirst, *Feminist Political Ecology*, 1<sup>st</sup> ed., The Routledge Handbook of Political Ecology, Routledge, pp. 1-1-12, 2015. [[Google Scholar](#)] [[Publisher Link](#)]
- [43] Dianne Rocheleau, Barbara Thomas-Slayter, and Esther Wangari, *Feminist Political Ecology: Global Issues and Local Experience*, 1<sup>st</sup> ed., Routledge, pp. 1-352, 2013. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [44] Naila Kabeer, “Paid Work, Women's Empowerment and Gender Justice: Critical Pathways of Social Change,” *Pathways of Empowerment Working Papers*, pp. 1-21, 2008. [[Google Scholar](#)] [[Publisher Link](#)]
- [45] Ulrik S. Kesmodel, “Cross-Sectional Studies–What are They Good for?,” *AOGS Acta Obstetricia et Gynecologica Scandinavica*, vol. 97, no. 4, pp. 388-393, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [46] S. Syahrizal, and S. Meiyenti, “Kinship System of Minangkabau Matrilineal Fisherman Society in the City of Padang,” *Proceedings of the 1<sup>st</sup> International Conference on Gender, Culture and Society*, ICGCS, pp. 30-31, 2021. [[Google Scholar](#)] [[Publisher Link](#)]
- [47] E.L. Davids, N.V. Roman, and L. Leach, “The Effect of Family Structure on Decision Making, Parenting Styles and Healthy Lifestyle Behaviour of Adolescents in Rural South Africa,” *African Journal for Physical Health Education, Recreation and Dance*, vol. 21, no. 3.2, 2015. [[Google Scholar](#)] [[Publisher Link](#)]
- [48] Angelius Chrisantho Marician Sile, I. Wayan Suwena, and Ni Luh Arjani, “Relasi Gender Dalam Sistem Kekerabatan Matrilineal,” *Journal of Arts and Humanities*, vol. 24, no. 2, pp. 177-185, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [49] Elisabeth Fischer, and Matin Qaim, “Linking Smallholders to Markets: Determinants and Impacts of Farmer Collective Action in Kenya,” *World Development*, vol. 40, no. 6, pp. 1255-1268, 2012. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [50] Gillian Doreen Barber, “Giving Birth in Rural Malawi: Perceptions, Power and Decision-making in a Matrilineal Community,” Thesis, Goldsmiths, University of London, pp. 1-362, 2004. [[Google Scholar](#)]
- [51] Antonia Grohmann, Ute Filipiak, and Franziska Heyerhorst, “Intra-Household Decision Making and Long-Term welfare Effects: New Empirical Evidence,” *Conference Paper*, pp. 1-31, 2017. [[Google Scholar](#)]
- [52] Jovia Salifu, “Kinship and Gendered Economic Conduct in Matrilineal Offinso, Ghana,” *Africa*, vol. 90, no. 4, pp. 683-700, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [53] Bina Agarwal, “Bargaining” and Gender Relations: Within and Beyond the Household,” *Feminist Economics*, vol. 3, no. 1, pp. 1-51, 1997. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [54] Michael O'Sullivan, “Gender and Property Rights in Sub-Saharan Africa: A Review of Constraints and Effective Interventions,” *World Bank Policy Research Working Paper*, 2017. [[Google Scholar](#)] [[Publisher Link](#)]
- [55] Talip Kilic, Paul Winters, and Calogero Carletto, “Gender and Agriculture in Sub-Saharan Africa: Introduction to the Special Issue,” *Agricultural Economics*, vol. 46, no. 3, pp. 281-284, 2015. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [56] Cheryl Doss, “Intrahousehold Bargaining and Resource Allocation in Developing Countries,” *The World Bank Research Observer*, vol. 28, no. 1, pp. 52-78, 2013. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]

- [57] Patti Kristjanson et al., “Livestock and Women’s Livelihoods,” *Gender in Agriculture: Closing the Knowledge Gap*, pp. 209-233, 2014. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [58] Prosper John Kimaro, Nathaniel Naiman Towo, and Benson H. Moshi, “Determinants of Rural Youth’s Participation in Agricultural Activities: The Case of Kahe East Ward in Moshi Rural District, Tanzania,” *International Journal of Economics, Commerce and Management*, vol. 3, no. 2, pp. 1-47, 2015. [[Google Scholar](#)]
- [59] Solomon Asfaw et al., “Impact of Modern Agricultural Technologies on Smallholder Welfare: Evidence from Tanzania and Ethiopia,” *Food Policy*, vol. 37, no. 3, pp. 283-295, 2012. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [60] Nkhubedu Magakwe, and Oluwasogo Olorunfemi, “A Systematic Review of the Trends, Effects, and Deterrents of Collective Marketing Participation among Smallholder Farmers in Sub-Saharan Africa,” *Sustainability*, vol. 16, no. 21, pp. 1-13, 2024. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [61] Casiano Evans Ngalande, “An Exploration of Bargaining Power Strategies by Small Scale Farmers in Maize Marketing in Mapangazhya Farming Block, Chikankata District, Zambia,” Thesis, The University of Zambia, pp. 1-91, 2022. [[Google Scholar](#)] [[Publisher Link](#)]
- [62] Rosario Michel-Villarreal, Eliseo Luis Vilalta-Perdomo, and Martin Hingley, “Exploring Producers' Motivations and Challenges within a Farmers' Market,” *British Food Journal*, vol. 122, no. 7, pp. 2089-2103, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]