

***The Impact of Rural Women's Perception of Gender Roles on Household Food Security:
A Study of Women Chama Members in Kakamega County, Kenya***

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Abstract

Against the backdrop of global efforts to achieve food security and gender equality, understanding women's perceptions of their roles in the food value chain is vital. This paper examines women's perceptions of gender roles along the food value chain and its impact on household food security. Focusing on women Chama members in Kakamega County, the study sheds light on complex dynamics influencing food security. Using purposive and snowball sampling, 50 respondents were selected and engaged through semi-structured interviews. Thematic analysis method identified five themes from the data: gendered division of roles, Women's gender roles perception, Chama influence on bargaining power, and Chama's impact on food security. The findings reveal that gender role perceptions influence women's participation in the food value chain, impacting household food security. Women's dominance in low-capital activities with limited returns is attributed to gender roles. Respondents believe that division of roles along gender lines increases gendered gaps in land ownership, financial and labour access, and technology adoption, challenging women's contribution to food security. Chama membership addresses these challenges by fostering women's access to collateral free credits for business ventures, land acquisition, technology investment, and health and nutrition knowledge acquisition. Notably, women with progressive views of gender roles perceive more balanced gender roles across the food value chain than their conservative counterparts. The study indicates that women's empowerment through Chama can influence their gender roles perception, leading to improved household food security. The study urges policymakers to formulate inclusive policies supporting women's initiatives and roles in food security.

Keywords: Household Food Security, Gender Roles, Perceptions, Rural Women, Value Chain, Chama

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1. Introduction

Food security is a pressing global issue. Over 820 million people experience hunger and undernourishment, particularly in Sub-Saharan Africa (FAO, IFAD, & UNICEF 2020). In Kenya, more than ten million people face chronic food insecurity and poor nutrition, with two to four million requiring emergency food assistance at any time (Emongor, 2014). Organizations like the Food and Agricultural Organization (FAO) work with governments to address hunger and malnutrition by promoting equal access to food, resources, and information. The FAO defines food security as a state where everyone has consistent access to sufficient, safe, and nutritious food for an active and healthy life (FAO, 1996). This definition indicates that food security encompasses four dimensions: availability, accessibility, utilization and stability, highlighting the complex factors beyond agricultural productivity (Ashby et al., 2016; Brooks & Matthews, 2015; Gross et al., 2000). This implies that achieving food security requires meeting all the four dimensions. According to Gross et al. (2000), food availability can be achieved through agricultural productivity; accessibility depends on the distribution and the financial means to acquire food, while utilization requires a consumer's good health for proper nutrient use. Lastly, food stability involves maintaining consistency in the other three dimensions over time to manage risks effectively (Brooks & Matthews, 2015).

Given the complexity of the concept of food security, several studies have examined the factors that determine household food security. They have identified economic factors such as asset ownership (Sikwela, 2005; Maharjan & Joshi, 2011; Muhoyi et al., 2014; Harris-Fry et al., 2015), and household income (Quisumbing et al., 1996; Pankomera et al., 2009; Babatunde & Qaim, 2010; Abubakari & Abubakari, 2015; Kalansooriya & Chandrakumara, 2016; Mesele, Asefa, & Anuja, 2018; Galie et al., 2019) as significant determinants. These studies suggest that households with assets and sufficient income are more likely to be food secure. However, some studies (Kalansooriya & Chandrakumara, 2016; Galie et al., 2019) indicate that household food security is not solely dependent on income levels but also on who earns and controls the income. These studies found that income controlled by women positively impacts household food security more than when men control the income.

Studies also found that social factors impact food security. These factors include educational status (Maharjan & Joshi, 2011; Muche et al., 2014; Mutisya et al., 2016; Zouh et al., 2019), Access to information, communication channels and technology (Harris-Fry et al., 2015; Nagamani & Veni, 2016; Masamha et al., 2018; Del Prete et al., 2019; Safari et al., 2020; Wegenast & Beck, 2020), as well as family sizes and dependency ratio (Pankomera et al., 2009; Muhoyi et al., 2014; Muche et al., 2014). Most studies link higher education levels among household members to better food security outcomes. However, Zouh et al. (2019) argue that women's higher education is insignificant to food security in households where women lack decision-making power. This suggests that the effect of women's education on food security depends on their decision-making power within the household. Larger family sizes are associated with greater food insecurity, but Muche et al. (2014) note that the number of dependents, rather than the total family size, directly impacts food security. They argue that larger families with fewer dependents are more likely to be food secure.

Studies on gender and food security have discussed how gender dynamics, such as the gender of the household head and prescribed gender roles, impact on the determinants of household food security. Several studies indicate that male-headed households enjoy greater food security due to better access to resources (Tibesigwa & Visser, 2016; Mudege et al., 2017;

Mesele, Asefa, & Anuja, 2018; Bolarinwa et al., 2020; Akukwe, 2020). On the other hand, female-headed households face challenges due to limited access to resources (Ali & Niehof, 2007; Kassie et al., 2012). These studies found that female-headed households in Pakistan and Kenya have limited access to extension officers, markets, capital and social support. In addition, gender roles, defined by social and cultural expectations (Thobejane & Khoza, 2014), further hinder women's contributions to food security. Women play a critical role in agricultural production, food preparation, and resource management (Chebuche & Wakhungu, 2021), however, societal perceptions of gender roles either empowers or constrains their effectiveness in food value chains (World Bank, 2015). These roles often dictate behaviour, responsibilities, and opportunities based on gender, presenting challenges in labour division, decision-making, and resource allocation within households (Senait, 2002). In Kenya, like other patriarchal societies, men are expected to engage in economically strategic tasks, and women to handle household chores (Chebuche & Wakhungu, 2021). These traditional norms socially subordinate Kenyan women to men, where men dominantly take roles in decision-making, especially in rural areas (Ondiba and Matsui, 2019).

To overcome these challenges, Kenyan women come together in mutual self-help groups known as *Chama*, a Swahili term that means an association (KAIG, 2013). Through *Chama* rural women have defied all odds and contributed greatly to the society. Despite male dominance, women's collective actions have been identified as key to household food security in SSA. While studies have explored the determinants of food security, and constraints from gender roles, there is a gap in understanding how an individual's perception of these roles affects their contributions to food security. This study fills this gap by examining the impact of rural women's perceptions of gender roles on household food security, focusing on *Chama* members in Kakamega County, Kenya.

2. Research Question and Objectives

The study's main research question is: How does rural women's perception of gender roles influence their contribution to household food security? By focusing on women *Chamas*, the study aims to:

- i. Analyze how rural women's perception of gender roles influences their participation in the food value chain.
- ii. Explore how *Chama* membership influences women's bargaining power in households regarding food security.
- iii. Investigate how women's experiences within *Chamas* influence their perception of gender roles and contribution to household food security.

3. Methodology

Study Area

The study area is Kakamega County, in Western Kenya. The County was selected because it's predominantly rural, and its main economic activity is agriculture (KNBS, 2019). The population mainly cultivate subsistence crops like maize and beans, and cash crops such as sugarcane, tea and coffee. Livestock rearing is also common. Women primarily manage the farms (Ireru & Ngugi, 2016; Barrow & Mogaka, 2007). The County has 12 sub-counties with a population of 1,867,579. Females comprise the largest population of 970,406 (KNBS, 2019). Kakamega is inhabited by the Luhya tribe, who traditionally assign men as household

heads and women as homekeepers. Cultural practices like polygamy and dowry payments continue to influence gender dynamics, leading to women’s subordination and dependence on men for financial support and decision-making. These factors make Kakamega County an ideal case for studying the impact of gender perceptions on food security.

Sampling and Data Collection

The study mainly focuses on rural women. Purposive and snowball sampling techniques were used to select the participants. A total of 35 women Chama members were selected using the snowball method. Accordingly, 12 Chama leaders and three organization officials were selected through purposive sampling. The twelve Chama leaders represented each of the 12 Chamas (Table 1), sampled from WEF and Kenya Women Microfinance Bank (KWFT)’s reports. Selection was based on their activities and locations in the county (Table 2). The three officials represented each of the selected three organizations (Table 3), based on their expertise and experience dealing with rural women and women Chamas. Chama leaders and organization’s officials served as key informants for the study. Chama members were referred for the study by Chama leaders. To minimize biases, members were selected based on their punctuality at meetings. A total of 50 samples were interviewed, 47 women and three men.

<i>Chama’s name</i>	<i>Chama type (activities)</i>	<i>Sub county (Chama location)</i>	<i>Date of leader’s interview</i>
SWG	Entrepreneurial	Mumias East	2022/4/30
SSWG	Entrepreneurial	Shinyalu	2022/4/27
OWG	Entrepreneurial	Lurambi	2022/7/28
UWG	Welfare	Khwisero	2022/3/15
SUWG	Welfare	Lugari	2022/5/6
FWG	Entrepreneurial	Likuyani	2022/7/14
LWG	Entrepreneurial	Ikolomani	2022/5/17
SYGWG	Entrepreneurial	Matungu	2022/7/8
ICWG	Entrepreneurial	Navakholo	2022/4/28
MSWG	Entrepreneurial	Malava	2022/6/25
AUPWG	Entrepreneurial	Mumias West	2022/7/22
BWG	Welfare	Butere	2022/4/30

Table 1: Sampled Women Chamas
Source: Author, 2022

Major Activities in Chamas	Specific Activities	No of Chama	Chama Type
Loans and credits	Table banking	12	Entrepreneurial & Welfare
Income generating Activities	Agribusiness, & Off-farm SMEs (food vending, small retail “kiosks”, pharmacy & beauty shops, clothes & shoe lines, pottery & beading, mobile money services)	12	Entrepreneurial & Welfare
Savings	Merry go – round	11	Entrepreneurial & Welfare
Investments	Real estate, and land property	8	Entrepreneurial
Social welfare support	Seminars, Trainings, workshops, monthly meetings, welfare kitty, community charity	12	Entrepreneurial & Welfare

Table 2: Major Chamas Activities
Source: Author, 2022

<i>Organization's name</i>	<i>Mission</i>	<i>Organization's headquarter location</i>	<i>Date of leader's interview</i>
Western Focus Community Organization (WEFOCO)	Promote community welfare	Kakamega	2022/7/27
One Acre Fund (OAF)	Improve agricultural productivity	Kakamega	2022/5/15
Women Enterprise Fund (WEF)	Women Empowerment	Nairobi	2022/5/4

Table 3: Sampled Organizations
Source: Author, 2022

Data Collection Methods

The study used semi-structured interviews to collect data. Interviews were conducted online between March and August 2022, with 30 to 90 minutes lasting depending on the participant's availability. With the participant's consent, interviews were audio recorded. Additionally, a demographic questionnaire was used to gather detailed information on participants' age, marital status, education, occupation, income, Chama membership, household headship, and household size. The demographic and household data collected was used primarily to understand the participants' backgrounds and were not directly used for the study's analysis.

Ethical Considerations

Careful steps were taken to protect participants, ensuring their sensitive information was always protected. Participation was voluntary, with informed consent. Interviews were conducted in private, with informed consent obtained for recording and using the information. Cultural, religious and educational considerations were made, with translations provided in Swahili and Luhya for non-English speakers.

Data Analysis

Data was analyzed thematically. The thematic analysis identifies themes or patterns to generate meaning from raw data (Braun & Clarke, 2006). Following Braun & Clarke's six-step approach, audio-recorded interviews were transcribed. The transcripts were reviewed, manually organized into an Excel spreadsheet, and sectioned according to the interview questions. Five main themes were identified based on the relationship between the codes and the number of times they occurred. These themes include the gendered division of roles in the food value chain, gender roles perceptions and food value chain participation, women's challenges along the food value chain, the Influence of Chama on women's bargaining power within the household, and the Impact of women's Chama experiences on household food security.

4. Results

Demographic and Household Characteristics

The demographic data reveals that most participants were over 30 years old and married. The average education level was secondary, although most participants only completed the primary level. Participants were mostly self-employed in on-/off-farm businesses. A few were employed in teaching, nursing and caregiving jobs. Many participants belonged to multiple

Chama, with experience ranging from 1- 10 + years (Table 4). Notably, income increased post-Chama membership (Table 5). Household characteristics show that most households are male-headed, with some female-headed households. Male heads were 40+ years old, typically in formal employment with several few in manual labour. Family sizes ranged from 4 to 7 members, with a few smaller (1-3) and larger (8-10) families. Most households owned land predominantly through inheritance, a few households did not own land (Table 6). The households' monthly food spending rose after women joined Chama (Table 7).

Variables	Categories	Frequency	Percentage (%)
Age	Below 20	0	0
	20 – 29	4	8
	30 – 39	12	26
	40 – 49	14	30
	50 and above	17	36
	Total	47	100
Marital Status	Single/Never married	3	6
	Married	37	79
	Divorced/Separated	1	2
	Widowed	6	13
	Total	47	100
Education level	Primary	20	43
	Secondary	10	21
	Certificate/Diploma	11	23
	Undergraduate	4	9
	Postgraduate	2	4
	Total	47	100
Employment Status	Employed	9	19
	Self-employed	25	53
	Housewife	13	28
	Total	47	100
Number of Chamas	1	6	13
	2 – 4	38	81
	More than 4	3	6
	Total	47	100
Years of Membership	Less than 1 year	0	0
	1-2 years	2	4
	3-5 years	7	15
	6-8 years	9	19
	9-10 years	8	17
	More than 10 years	21	45
	Total	47	100

Table 4: Demographic Data of the Respondents

Source: Author, based on field data, 2022

Category	Before joining Chama		After joining Chama	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Income				
Less than 1,000	27	58	4	9
1,100 – 15,000	10	21	17	36
15,100 – 30,000	2	4	11	23
30,100 – 45,000	7	15	6	13
45,100 – 50,000	1	2	8	17
Above 50,000	0	-	1	2
Total	47	100	47	100

Table 5: Individual Monthly Income
Source: Author, based on field data, 2022

Variables	Categories	Frequency	Percentage (%)
Household head (HH)	YES	15	32
	NO	32	68
	Total	47	100
Age of HH	31- 40	4	12
	41- 50	12	38
	Above 50	16	50
	Total	32	100
HH Occupation	Civil Servant	12	38
	Company Employee	10	31
	Self-employed	4	12
	Others	6	19
	Total	32	100
No. of Household members	1-3	4	9
	4-6	25	53
	7-9	14	29
	10 & above	4	9
	Total	47	100
Agricultural land ownership	YES	40	85
	<i>Inheritance (Men owned)</i>	(25)	(53)
	<i>Purchased (men owned)</i>	(5)	(11%)
	<i>Purchased (women owned)</i>	(7)	(15%)
	<i>Purchased (Joint ownership)</i>	(3)	(6%)
	NO	7	15
	Total	47	100

Table 6: Respondents' Household Characteristics Tabulation
Source: Author, based on field data, 2022

Category	Before joining Chama		After joining Chama	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Monthly Food Expenditure				
Less than 5,000	23	49	0	-
5,000 – 10,000	17	36	29	62
10,100 – 15,000	6	13	11	23
15,100 – 20, 000	1	2	3	6
Above 20,000	0	-	4	8
Total	47	100	47	100

Table 7: Household Monthly Food Expenditures
Source: Author, based on field data, 2022

Gendered Division of Roles in the Food Value Chain

Findings on rural women’s understanding of traditional gender role expectations in the food value chain reveal a distinct division of roles between men and women in production, processing, retailing, and consumption. In crop and animal farming, women focus on subsistence farming and management of smaller livestock and poultry, while men engage in large-scale cash crop farming and handle larger livestock. Labour is also divided, with men taking on physically demanding tasks like ploughing and women performing labour-intensive activities like planting and weeding.

Processing is categorized into traditional methods, dominated by women, and modern techniques engaged by men. The findings show that Traditional processing methods such as salting and smoking are performed at home, while modern processing techniques are performed in factories. The division of labour is also evident, with women primarily engaged in secondary manual tasks, while men are employed in operating and maintaining machinery, and driving roles. In retailing, findings indicate that men dominate formal retailing, controlling large-scale wholesale enterprises, while women are more active in informal and small-scale trading enterprises. There is a noticeable gender gap in labour within retailing, where men occupy higher-paying managerial positions, while women are often overrepresented in lower-wage roles like clerical. Regarding consumption, the study found that women mostly manage food availability and household food decisions in households that mainly rely on family farm-obtained foods. In households dependent on purchasing food, men provide financial resources and oversee decisions related to food purchases.

Gender Role Perceptions and Food Value Chain Participation

The study found that rural women’s perceptions of gender roles influence their participation in the food value chain. Two main perceptions were identified: conservative and progressive. Conservative views, which are more common among older women, align roles in the value chain with traditional gender roles, confining women to subsistence farming, traditional processing, and small-scale retailing. These women believe that financial decisions are the domain of men, as the household providers. They limit their involvement in food consumption to food preparation and distribution tasks.

In contrast, progressive views, mainly common among younger women, view roles in the value chain as opportunities for empowerment. They challenge traditional norms by engaging in innovative farming, land ownership, and entrepreneurial activities. They advocate for

shared financial responsibilities and decision-making within the household. These differing views immensely impact women's empowerment and broader participation in the food value chain.

Women's Challenges Along the Food Value Chain

The study identifies several key obstacles hindering rural women's participation in the food value chain in Kakamega County. The study found that a major barrier is limited access to land. Women's limited access to land is worsened by the patriarchal inheritance system that complicates land ownership for them. Widows, in particular, face challenges from male relatives claiming their late husband's land. Financial constraints also pose significant challenges. The findings reveal that women face challenges in obtaining credit, due to collateral requirements, insufficient savings, and low levels of education and financial literacy.

Another obstacle is the technology adoption gap. The study identifies that mobile phone use is common among women in Kakamega County; however, internet usage remains uneven, with limited and restricted access to technological information, particularly among older women. Traditional norms further restrict women's access to modern agricultural practices by limiting their interaction with male agricultural extension officers.

Additionally, women face labour challenges due to cultural and financial barriers that prevent them from hiring male labour. Some women avoid employing men due to fear of societal judgement, while others cannot afford the wages men demand. The caregiving role further complicates women's ability to manage their labour and access additional female labour.

Chama's Influence on Women's Bargaining Power Within Household

The findings on the influence of Chama on women's bargaining power reveal that Chama greatly enhances rural women's household bargaining power through economic empowerment and social support. Chama provides women with access to savings and credit, enabling them to contribute financially to their households, thereby increasing their influence over financial decisions. Chamas also facilitates collective investments and income-generating ventures, further strengthening women's voices in household matters.

Additionally, Chama offers a supportive network where women share experiences, resources, and advice, strengthening their confidence and negotiation skills. Many participants reported gaining leadership and negotiation abilities through their roles in Chama, which improved their decision-making capabilities at home. Chamas also organizes seminars and training sessions on financial literacy, business management, nutrition, healthcare, and women's rights, empowering women to advocate for their interests within their households.

Moreover, joint decision-making and collective bargaining within Chamas aid assertive negotiation strategies that women can apply in their households and communities. Furthermore, successful community projects led by women Chamas influence societal norms towards gender equality, further enhancing women's bargaining power. Regular Chama meetings also contribute to increased self-esteem and confidence, enabling women to express their views on important household matters and develop a sense of identity beyond traditional roles.

Impact of Women's Chama Experiences on Household Food Security

The study explored food security through the FAO's three core elements: availability, accessibility, and utilization, and found that Chama membership immensely enhanced household food security in all three areas.

In food availability, the study found that Chama membership increased agricultural productivity by enabling women to invest in essential inputs like fertilizers and seedlings. Using Chama's financial resources, progressive members extended their investments to modern farming technologies, leading to surplus crop production that ensured year-round food availability. Interviews with key informants revealed that organizations such as OAF and WEF play a crucial role by providing access to credit and advanced farming technologies through collaborations with Chamas. Additionally, Chama members collectively invest in agricultural production by leasing and buying land, benefiting both conservative and progressive members. Progressive members also use Chama-provided funds to lease land and independently cultivate crops and rear livestock, further enhancing food availability.

In food accessibility, findings indicate that Chama membership improved food accessibility by providing women with financial resources, training, and support, which empowered them to engage in diverse income-generation activities (Table 2). This led to increased household income, financial literacy, and savings. Progressive members optimized their food purchasing strategies through bulk buying, which resulted in cost savings and improved accessibility. Additionally, Chamas contributed to human development by enabling members to invest in their children's education, which was seen as a long-term strategy for enhancing household food accessibility. Participants shared their expectations from their educated children bringing practical benefits such as agricultural knowledge, financial advice, and nutritional information.

Chama membership also impacted food utilization positively, as food consumed transitioned from primary carbohydrate-based diets to more varied diets rich in proteins, vitamins, and micronutrients. This dietary improvement is particularly pronounced among progressive members, who use their increased purchasing power to diversify their household's food intake. Chamas also improved water access and sanitation through investments in water storage facilities, enhancing hygiene and reducing time spent collecting water.

Meal frequency increased significantly after joining Chamas (Figure 1). Many households shifted from one or two meals a day to three or more meals, particularly among progressive members. Health improvements were also reported, with Chamas educating members on nutrition and promoting the use of smoke-free cooking stoves known as "rocket jikos", to reduce exposure to harmful smoke. Chamas also play a crucial role in preserving Indigenous food knowledge. Older members share knowledge of the nutritional benefits of indigenous vegetables with the younger generation, enhancing the overall health and well-being of families.

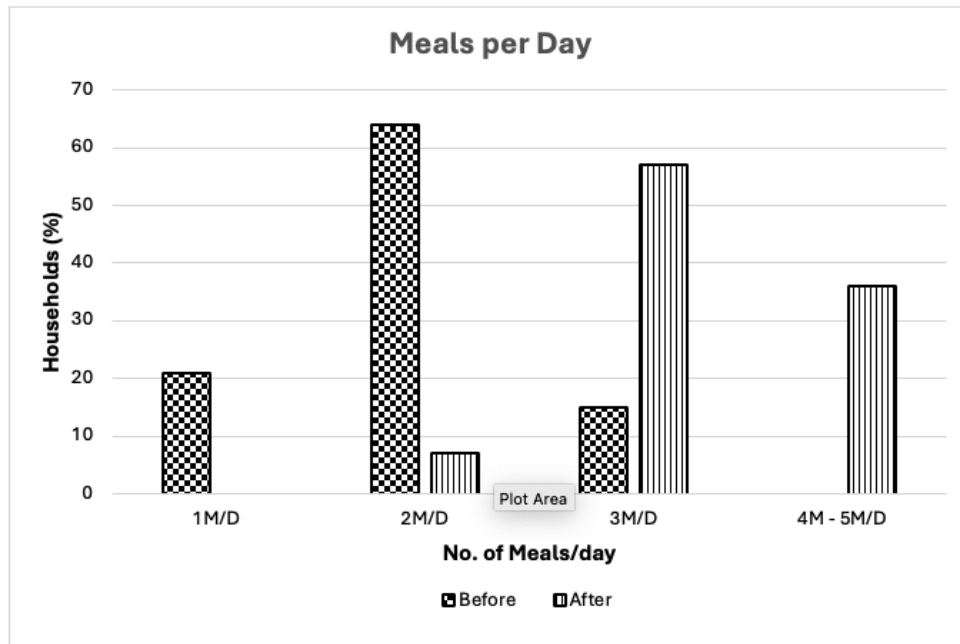


Figure 1: Household's Number of Consumed Meals per Day
 Source: (Fieldwork data, 2022)

5. Discussion

The findings emphasize the crucial role of Chama membership and the influence of women's perceptions in enhancing household food security focusing on the three dimensions outlined by FAO: availability, accessibility and utilization.

The Impact of Women's Perception of Gender Roles on Their Participation in the Food Value Chain

The study reveals a deeply entrenched gendered division of labour across the food value chain in Kakamega County. It links women's predominant relegation to subsistence-oriented, and lower-value-added activities to the societal norms that assign them the caregiving roles. In this context, women, who are socially subordinated to men, are expected to rely on provisions from men, who are conditioned to be providers and occupy higher-status, income-generating roles. Such gendered labour division limits women's access to productive resources, deepening their economic dependence and restricting their involvement in high-value food value chains. The findings align with previous study by Ondiba & Matsui, (2019), which demonstrate how patriarchal norms and structures constrain women's empowerment and limit their contribution to household food security. However, women's dominant roles in subsistence farming, traditional processing and informal retailing emphasize their essential contributions and highlight the need for greater support to enhance their economic participation and decision-making power.

This study argues that despite equal impacts of gender roles on rural women, individual women's perception of these roles significantly influences their participation in the value chain and contribution to household food security. For instance, women with conservative perceptions typically confine themselves to traditional, low-value tasks, limiting their participation in the value chain. These limitations perpetuate their economic dependence,

reinforce traditional household power dynamics, and restrict their decision-making power, thereby reducing their ability to contribute to household food security.

In contrast, women with progressive perceptions challenge these traditional norms and actively pursue opportunities for empowerment. Their involvement across various stages of the food value chain reflects a shift towards greater economic independence and empowerment. These women engage in diverse economic productive activities, including entrepreneurial ventures and modern technology adoption, which enhance their financial independence and decision-making power. This shift enhances their economic outcomes and improves household food security. Their aspirations for greater autonomy and control over their lives are crucial for driving positive change within their households and communities.

Influence of Chama Membership on Women's Bargaining Power in Households

Power dynamics within households are often shaped by factors rooted in economic, social and psychological dimensions. These factors have been identified in this study as structural barriers that limit women's participation in the value chain. The study highlights how the barriers intertwine with gendered power dynamics to affect household food security. For instance, limited access to land and other resources in Kakamega is skewed towards men due to the patriarchal inheritance practices. This limits women's ability to engage effectively in agricultural production. Additionally, women's lack of access to credit combined with low education and financial literacy, limits their ability to invest in agriculture and businesses, perpetuating a cycle of poverty. Technological disparities worsen these challenges. For example, the widespread mobile use in Kakamega contrast sharply with a digital divide in internet access and literacy. This divide prevents women from accessing vital information, market opportunities, and agricultural extension services. Women's knowledge acquisition and technological utilization is also hindered by traditional gender norms, which discourage their interactions with male extension officers. This finding corresponds with the previous study by Mudege et al., (2017), which posits that gender norms play a major role in prohibiting women from accessing agricultural extension services in Malawi. The gendered division of labour and financial constraints contribute to labour shortages for women, as domestic responsibilities reduce their time for productive work, and financial limitations restrict them from hiring male labour. These challenges are deeply rooted in socio-cultural and gender norms, making individual perceptions of these norms critical in overcoming them.

This study found that Chama membership is a key factor in empowering rural women and enhancing their bargaining power in households. The findings highlight Chama's role in providing economic empowerment, social support, and educational resources, which help shift gender dynamics and strengthen women's decision-making power. Access to savings and credit through Chama enables women to contribute financially, increasing their influence within the household. The social networks foster confidence and negotiation skills, allowing women to take on leadership roles and challenge existing power dynamics. Education in financial literacy, business management and women's rights further empower women to advocate for themselves and address gender inequalities. While Chama membership is particularly more effective for women with progressive views, it also gradually transforms the perceptions of conservative members, aiding psychological empowerment, and a move toward a more equitable household environment.

Impact of Women's Chama Experiences on Household Food Security

The study found that women's participation in Chamas has enhanced food availability by providing financial access and fostering partnerships with organizations that support them. Through Chama, women are empowered to invest in agriculture resulting in higher crop yields and a more stable food supply. However, investment levels vary based on women's perception of gender roles. Progressive members tend to diversify their investments, recording higher agricultural productivity than conservatives who only invested in farm inputs. Although the investment levels are varied, progressive and conservative members benefit from increased production, because of their access to resources through Chama membership. This finding indicates that, given resources, with a progressive view of gender roles, women have the potential to increase food availability.

The findings indicate that income-generating activities initiated by women Chama members have improved household food accessibility. With increased purchasing power, women Chama members can buy a wider variety of foods that they don't produce on their farms. However, how these women use their income is influenced by their perceptions of gender roles. Women with progressive views strategically use Chama resources for food purchases and invest in their children's education. Through bulk buying, they ensure consistent food access for all household members, while investing in children's education promises an increase in future household income, thereby reducing the number of dependents. As a previous study by Muche et al. (2014) suggested households with fewer dependents are more likely to be food secure, this study provides that children's education is one way of enhancing future food security, through an increased number of income earners in a household.

The study outlines that Chama membership has led to improved food choices, more meals, and better health in households. Progressive members have experienced more noticeable dietary improvements due to their greater purchasing and decision-making power. Research by Zouh et al. (2019) supports the idea that women's decision-making power is vital for household food security, aligning with the findings on progressive women in this study. Progressive women view food financial support as a shared duty, thereby spending more on food. This aligns with previous studies Galie et al., (2019) and Kalansooriya & Chandrakumara, (2016) that link women's income and financial autonomy to better food security. The study shows that both conservative and progressive women are open to adopting healthier cooking methods and water storage investments. Conservative women's adoption of new cooking technologies is influenced by their healthy progressive members and their caregiving role perception. Chama also helps in preserving and sharing Indigenous food knowledge, with both groups embracing the inclusion of indigenous, particularly vegetable-based, foods in their diet. Chama can achieve this because of its diverse membership in terms of age.

6. Conclusion and Recommendations

This study examines how perceptions of gender roles affect household food security, focusing on rural women's involvement in the food value chain. It highlights that women's perception of gender roles influences their participation in the value chains. It identified that women with progressive views on gender roles challenge traditional norms by actively participating in lucrative value chains, while conservatives restrict themselves to roles defined by societal norms.

The study emphasizes the significance of Chama membership for rural women's contribution to food security. Chama membership empowers women by providing them with financial resources, support networks and educational opportunities. These empowerments along with progressive views on gender roles, lead to increased participation in household decision-making and better food security outcomes. Furthermore, Chama membership enhances women's financial autonomy and bargaining power resulting in improved dietary practices and health. In addition, experiences within Chamas help shift gender roles, promoting a more equitable distribution of responsibilities, particularly among women with progressive views.

The study recommends implementation of interventions for secure land tenure, credit access, digital literacy, and gender equality by the government and non-government organizations, to facilitate effective implementation of women Chamas' activities aimed at improving food security. In addition, the study recommends that the government initiate more civic education programs in rural communities focusing on educating men and women on the importance of gender equality for the development of communities. This will aid women in Chama's efforts to reduce the gender gaps in value chains.

Further research is suggested to explore factors influencing the shifts from conservative to progressive gender role views and assess the effectiveness of targeted interventions.

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