

Gender and Household Headship Effects on Food Choice Motivation and Consumption Patterns of Alternative Staples in Claveria, Misamis Oriental

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ABSTRACT

While rice remains the dominant staple in the country, exploring the role of alternative staples such as corn, cassava, sweet potato, banana, and adlai within the socio-cultural and economic contexts of Filipino households could help reduce their rice dependency. This study examines the influence of gender and household headship on food choice motivations and consumption patterns of alternative staple foods in Claveria, Misamis Oriental, Philippines. Employing a mixed-methods approach with 200 respondents across Geographically Isolated and Disadvantaged Areas (GIDA) and non-GIDA barangays, the study investigates demographic profiles, consumption patterns, and motivational factors guiding food choices. Results indicate an equitable distribution of male and female household heads and a predominant role of women in food shopping and meal preparation. Both male- and female-headed households demonstrate strong motivations toward health, economic affordability, emotional well-being, social and cultural norms, and environmental considerations in food choices. However, statistical analyses reveal no significant differences in consumption patterns or motivations based on household head gender across most domains, except for a slight significance in emotional motivations in non-GIDA areas. Findings align partially with the Theory of Planned Behavior, confirming consistent attitudes and norms toward food choices, while also highlighting nuanced gender-based variations in environmental and market motivations. This suggests that while gender roles influence certain aspects of food decisions, broader socioeconomic and cultural factors shape consumption behaviors more profoundly. The study recommends gender-inclusive policies, community nutrition education, and targeted promotion of alternative staples to enhance food security and sustainable dietary practices in rural Filipino communities.

Keywords: Consumption Behaviors, Gender Roles, Geographically Isolated and Disadvantaged Areas, Food Decisions, Motivational Factors, Alternative Food Choices

INTRODUCTION

The Philippines, an archipelago teeming with biodiversity, boasts a rich culinary heritage shaped by its diverse geography and cultural influences. While rice undeniably reigns supreme as the nation's staple food, a closer look reveals a fascinating tapestry of other essential crops that have sustained communities for generations. This paper delves into the world of Filipino staple foods, focusing on rice, corn, cassava, sweet potato, and banana, exploring their historical significance, regional variations in consumption, and their evolving roles in the modern Filipino diet. These five staples, each with unique characteristics and nutritional profiles, have played pivotal roles in shaping Filipino cuisine and culture. Rice, the undisputed king, graces tables across the country, symbolizing abundance and tradition. Rice holds a central role in Filipino culture and diet, transforming from an elite food to a staple by the late 19th century (Aguilar, 2005).

Corn, a vibrant and versatile grain, holds particular importance in the Visayas and Mindanao regions, where it is ground into flour, cooked into porridge, or enjoyed as a sweet treat. Corn, while secondary to rice, is a crucial crop in the Philippines for food, animal feed, and industrial uses.

It ranks as the second most important staple crop after rice, with production reaching around 8.4 million metric tons in 2023. Corn is cultivated on approximately 2.5 million hectares nationwide, with yellow corn comprising the majority of production, mainly used for livestock feed and industrial purposes, while white corn serves as a staple food for millions of Filipinos, especially in Visayas and Mindanao (Philippine Statistics Authority, 2025; Statista, 2024; USDA-FAS Manila, 2025). Cassava and sweet potato, resilient root crops, provide sustenance in resource-poor areas and are transformed into a myriad of dishes, from savory stews to sweet desserts. Sweet potato and cassava are good sources of dietary fiber and resistant starch, with potential to improve cholesterol profiles in humans (Trinidad et al., 2013).

Bananas, ubiquitous throughout the archipelago, offer a readily available source of energy and nutrients, consumed both ripe and unripe in various forms. The Philippine government has recognized the importance of promoting alternative staple foods and has implemented various programs to support their production and consumption. These efforts include research and development, market promotion, and consumer education. This study delves into the intricate relationship between gender, household headship, and the motivations driving food choices within Filipino households. It recognizes that food choices are not merely driven by individual preferences but are deeply embedded within social structures and cultural norms. Traditional gender roles, often assigning women the responsibility of food preparation and men the role of provider, can significantly influence dietary preferences and decision-making power within the household.

In rural Malawi, men are increasingly involved in providing and purchasing food, as well as supporting food preparation and household tasks (Mkandawire & Hendriks, 2019). Furthermore, the gender of the household head can impact resource allocation, food security, and adherence to cultural dietary traditions. While the Philippines has recognized the importance of promoting alternative staple foods, there is limited understanding of how gender and household headship influence the adoption of these alternatives in specific geographic contexts. Existing research focuses on the broader picture of food security and consumption patterns but does not delve into the nuanced factors influencing food choices within households, particularly considering the role of gender and household headship.

This study aims to address this gap by focusing on Claveria, a landlocked municipality in Misamis Oriental, Philippines, where various studies have been conducted on rural development and agriculture. Research has examined accessibility to community services, finding that higher-income households generally have lower travel costs to essential facilities (Delgado & Canters, 2011). By employing a mixed-methods approach, this research investigates the motivations and consumption patterns of alternative staples in Claveria, exploring the complex interplay between gender, household headship, and food choice motivation.

MATERIALS AND METHODS

This research employed a mixed-methods design, integrating qualitative and quantitative approaches, to offer valuable insights into complex topics such as food choice, consumption patterns, and food security. These designs can provide a more comprehensive understanding of factors influencing dietary behaviors and food retail environments (Wertheim-Heck & Raneri, 2019). By combining methods like surveys, interviews, and observational data, researchers could explore the multifaceted nature of food-related issues, including the impact of urban transformations on food access and consumption among vulnerable populations (Wertheim-Heck & Raneri, 2019).

Mixed methods approaches have been successfully applied to assess food security and coping

strategies among smallholders in resource-scarce settings, revealing variations in food acquisition capacity and consumption patterns (Limon et al., 2017). While these designs offer numerous benefits, researchers should be aware of the challenges associated with integrating qualitative and quantitative data, particularly when quantizing qualitative information (Driscoll et al., 2007). Overall, mixed methods research provided a robust framework for investigating food choice motivations and consumption patterns of alternative staples.

RESULTS AND DISCUSSION

Socio-Demographic Profile of Household Heads

Figure 2 presents the demographic distribution of household respondents across selected barangays in Claveria, Misamis Oriental. The data is categorized by gender and headship, highlighting the representation of both male and female household heads in each area. This information provides essential context for analyzing household decision-making patterns in food purchasing and preparation.

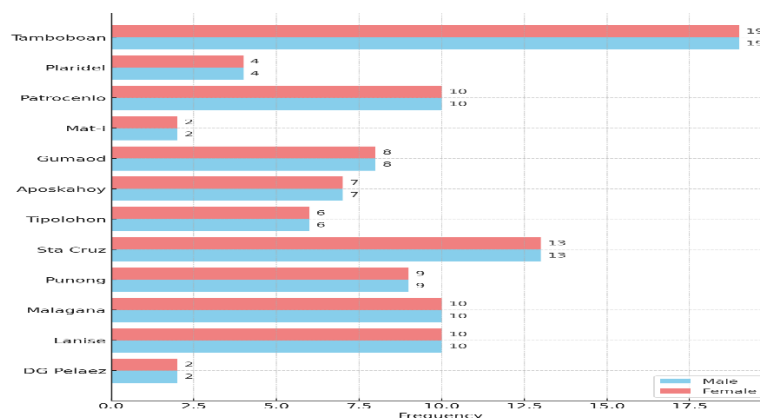


Figure 2. Demographic profile of households per barangays as influenced by gender and headship in Claveria, Misamis Oriental

The data reveal an equitable distribution of household heads by gender across the surveyed barangays in Claveria, Misamis Oriental. Each barangay reflects a balanced representation of male and female respondents, with some areas like Tamboboan contributing the highest proportion (19%) of total responses. This even gender distribution ensures the reliability and inclusivity of the data in reflecting the community's food purchasing and household dynamics. It also supports the formulation of gender-sensitive programs and policies that cater to the diverse needs of households in both rural and semi-urban settings.

Age

Figure 3 presents the distribution of age categories between male and female respondents, showing some variation. While the majority of both males and females fall within the adult age group, a slightly higher percentage of elderly individuals is observed among females (34.0%) compared to males (31.0%). This finding aligns with existing literature attributing gender differences in longevity to a combination of genetic, environmental, and behavioral factors (Abdulraheem et al., 2011; Ehiemua, 2014). This may reflect general demographic trends where women tend to have longer life expectancy than men, which can lead to a higher representation of elderly females in population samples. However, research indicates a diminishing gap over time (Ehiemua, 2014).

Civil Status

Figure 3 shows the distribution of male and female respondents by civil status. Among males, the majority were married (64.0%), followed by those in a common-law partnership (20.0%). A small percentage reported being single (6.0%), widowed (4.0%), solo parents (3.0%), or separated (3.0%). No male respondents reported being legally separated. The highest percentage of female respondents was also married (32.0%), but a significant proportion were widows (30.0%). Common-law partnerships and solo parenting were each reported by 15.0% of female respondents. Smaller percentages were single (7.0%) or separated (1.0%), with no reports of legal separation. Research reveals significant gender differences in marital status, with men more likely to be married or in common-law partnerships, and women exhibiting higher rates of widowhood (Trevisan et al., 2016; Wachterman & Sommers, 2006).

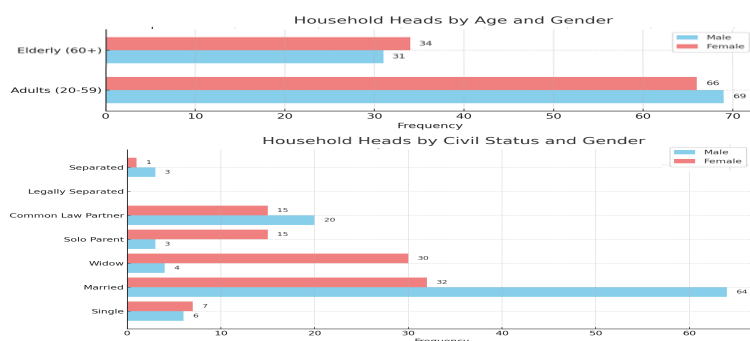


Figure 3. Demographic profile of households as to age and civil status as influenced by gender and household headship in Claveria, Misamis Oriental

Educational Attainment

Figure 4 displays the educational attainment of male and female respondents. Among males, the highest proportion had completed elementary level (51.0%), followed by high school level (34.0%). A smaller number had reached college level (6.0%), while a few reported no formal schooling (3.0%) or vocational training (4.0%). No male respondents had completed senior high school or post-graduate education. Among females, the largest group had completed high school (37.0%), followed by elementary education (32.0%) and college (28.0%). Only 1.0% of females had no schooling or post-graduate degrees.

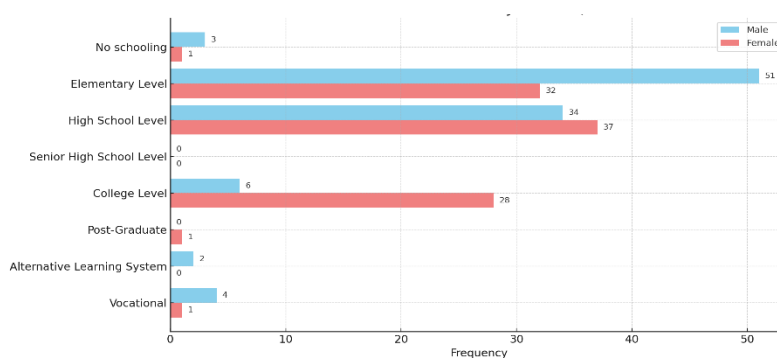


Figure 4. Socioeconomic characteristics (Education) and their relationship to gender and household headship in Claveria, Misamis Oriental

No females reported education through alternative learning systems. Men show higher rates of educational attainment below the tertiary level, while women are more likely to have completed tertiary education (Nagaraj et al., 2014).

Employment Status

Figure 5 presents the employment status of male and female respondents. Among males, the most common employment category was "Employer in own farm" (39.0%), followed by private establishments (18.0%), and equal proportions in private households and self-employment (10.0% each). Government employment was relatively low among males (5.0%), while 10.0% were not employed due to reasons such as being pensioners or students. While non-farm employment is expanding, a significant gender disparity persists, with men overrepresented (Pattayat et al., 2023).

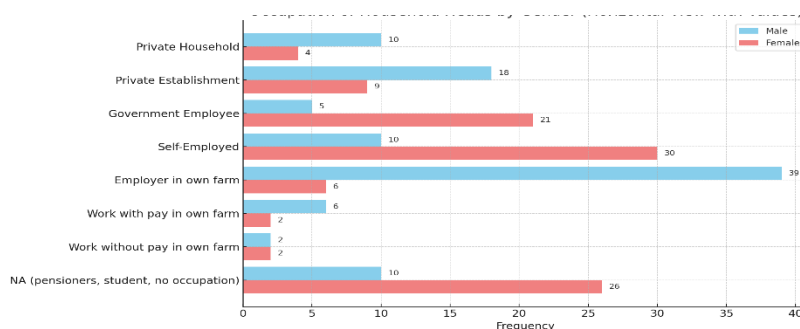


Figure 5. Socioeconomic characteristics (Employment) and their relationship to gender and household headship in Claveria, Misamis Oriental

Among females, the largest proportion was self-employed (30.0%), followed by government employees (21.0%) and those not currently employed (26.0%). Employment in private households and establishments was lower, at 4.0% and 9.0% respectively. Very few females reported farming-related work. Education appears to shape distinct occupational pathways for men and women, with education enabling women's access to manufacturing and construction, and guiding educated men toward service sector jobs (Feliciano & Rumbaut, 2005).

Income distribution

Figure 6 displays the monthly income distribution of male and female respondents. Among males, the majority (58.0%) earned less than ₱9,100.00, and 40.0% earned between ₱9,100.00 and ₱36,399.00. Only 1.0% each reported earnings in the higher brackets of ₱36,400.00–₱63,699.00 and ₱63,700.00–₱109,199.00. The majority of male palay farmers earn less than PHP 10,000, exhibiting low savings and high expenditure on essential family needs (Apat et al., 2021).

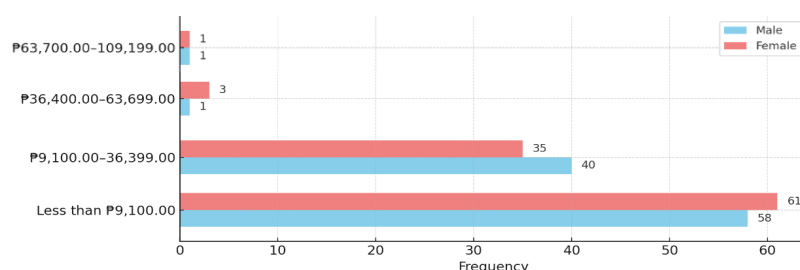


Figure 6. Socio-economic profile of respondents in terms of income distribution as influenced by gender and household headship in Claveria, Misamis Oriental

Similarly, most female respondents (61.0%) earned below ₱9,100.00, while 35.0% were in the ₱9,100.00–₱36,399.00 range. A small proportion (3.0%) reported mid-range incomes, and only 1.0% earned in the highest bracket. Persistent inequalities in income, labor, and education hinder poverty reduction despite recent economic growth, underscoring the need for inclusive growth strategies and targeted interventions (Albert et al., 2015).

Place of work

Figure 7 shows the distribution of respondents by place of work. Among males, the majority (70.0%) worked locally but away from home, while 25.0% worked at home. Only 5.0% of males had no work or fell under not applicable categories.

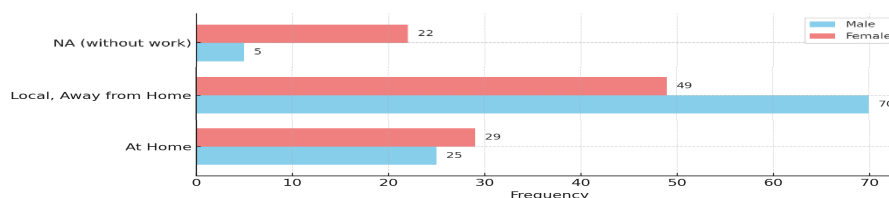


Figure 7. Socio-economic profile of respondents in terms of place of work as influenced by gender and household headship in Claveria, Misamis Oriental

Among females, 49.0% also worked away from home, but a slightly higher proportion (29.0%) worked at home compared to males. Notably, 22.0% of females reported no work, significantly more than their male counterparts. Studies suggest that despite inherent challenges, remote work can positively impact productivity, interpersonal relationships, and personal well-being. However, it may also contribute to feelings of isolation (Naithani, 2025).

Usual Food Shopper

Table 1 shows the distribution of roles in food shopping among household respondents in Claveria, Misamis Oriental, categorized by gender. The data reflects the division of responsibility in purchasing food, providing insight into who predominantly handles this task within households—whether it is mostly men, women, or shared equally.

Table 1
Gender influence on usual food shoppers among household respondents in Claveria, Misamis Oriental

FOOD SHOPPER ROLE	HOUSEHOLD HEADS			
	MALE		FEMALE	
	Frequency	Percentage	Frequency	Percentage
Women only (100%)	43	43.0	69	69.0
Men only (100%)	32	32.0	9	9.0
Women mostly (>75%)	8	8.0	7	7.0
Men mostly (>75%)	2	2.0	6	6.0
Both equally	15	15.0	9	9.0
Total	100	100.0	100	100.0

Results highlight a significant gendered pattern in household food shopping responsibilities. A majority of female respondents (69%) indicated that women exclusively shop for food, compared to 43% of male respondents reporting the same. Meanwhile, 32% of male respondents identified themselves as the sole food shopper, compared to only 9% of female respondents stating that men exclusively shop. These results suggest that women continue to bear the primary responsibility for food acquisition in most households, although a notable proportion of men also play active roles. These findings are important for targeting food-related programs and interventions, especially in recognizing and supporting the roles of both genders in household food security. Previous studies highlight the continued predominance of women in food acquisition roles, emphasizing the importance of acknowledging gender dynamics in the development of effective food-related programs and interventions. Recognizing the contributions of both men and women is essential to ensure that such

initiatives are inclusive, equitable, and responsive to the realities of household food decision-making (Storz et al., 2022; Flagg et al., 2013).

Frequency of Household Food Shopping

Table 2 presents the frequency of food shopping per week among household respondents in Claveria, Misamis Oriental. The data is categorized by gender and reflects the regularity with which male and female respondents engage in food purchasing for their households.

Table 2
Frequency of household food shopping as influenced by gender and household headship in Claveria, Misamis Oriental

FREQUENCY OF FOOD SHOPPING	HOUSEHOLD HEADS			
	MALE		FEMALE	
	Frequency	Percentage	Frequency	Percentage
Never	0	0	0	0
Once every two weeks	25	25.0	25	25.0
Once a week	51	51.0	54	54.0
Twice a week	8	8.0	8	8.0
Three or more time a week	16	16.0	13	13.0
Total	100	100.0	100	100.0

The results in Table 2 reveal that the majority of both male (51%) and female (54%) respondents shop for food on a weekly basis. A quarter of respondents from each gender indicated shopping once every two weeks, while smaller proportions shop more frequently—two or more times per week. Notably, no respondents reported never shopping for food, indicating that food purchasing is a shared and consistent activity across households. These findings reflect stable shopping patterns that can inform the timing and frequency of interventions such as mobile markets, food distribution programs, or nutrition campaigns. Although food-related responsibilities are often shared within households, women continue to be more likely to assume primary roles in meal planning, preparation, and grocery shopping (Flagg et al., 2013; Storz et al., 2022).

Average Weekly Food Expenditure of Households

Table 3 presents the distribution of reported average weekly food spending among households in Claveria, Misamis Oriental, categorized by the gender of the respondent. The data reflect variations in household food budgeting, which can help identify economic behaviors and capacity in food-related expenditures.

Table 3
Weekly household food expenditure as influenced by gender and household headship in Claveria, Misamis Oriental

HOUSEHOLD FOOD EXPENDITURE	HOUSEHOLD HEADS			
	MALE		FEMALE	
	Frequency	Percentage	Frequency	Percentage
Below Php 500	11	11.0	9	9.0
Below Php 500	41	41.0	36	36.0
Php 1,001 - 5000	47	47.0	49	49.0
Above Php 5,000	1	1.0	6	6.0
Total	100	100.0	100	100.0

The data in Table 3 indicates that the majority of respondents, regardless of gender, spend between Php 500 to Php 5,000 weekly on food. A higher proportion of both male (47%) and female (49%) respondents fall within the Php 1,001–5,000 range, suggesting that this is the most common weekly food budget among households. Only a small segment reported spending above Php 5,000, more so among female respondents (6%) than males (1%). These figures suggest that while most households operate within a moderate food budget, gendered spending patterns may also reflect differences in household size, income level, or food priorities. Understanding these trends is crucial for developing targeted economic or food assistance programs. Despite traditional gender roles in food responsibilities, intrahousehold food distribution in the Philippines reveals no consistent pattern of age or gender bias, with females consuming slightly more non-staple foods than males. (Angeles-Agdeppa et al., 2024).

Priority Ranking on Price, Cost, and Affordability of Food

Table 4 presents how household heads in Claveria, Misamis Oriental, prioritize the price, cost, and affordability of food when making purchasing decisions. The data is broken down by gender, offering insights into the perceived economic importance of food affordability among male and female respondents.

Table 4

Priority ratings on price, cost, and affordability of food as influenced by gender and household headship in Claveria, Misamis Oriental

FOOD PRICE/COST/ AFFORDABILITY PRIORITY RATINGS	HOUSEHOLD HEADS			
	MALE		FEMALE	
	Frequency	Percentage	Frequency	Percentage
Highest Priority	45	45.0	60	60.0
Very Highest Priority	39	39.0	25	25.0
Moderate Priority	14	14.0	11	11.0
Low Priority	1	1.0	4	4.0
Least Priority	1	1.0	0	0
Total	100	100.0	100	100.0

Data show clear gender differences in how household heads prioritize the price, cost, and affordability of food. A larger proportion of female respondents (60%) rate this as their highest priority compared to only 45% of male respondents, indicating that women place more emphasis on economic factors in food purchasing decisions. Meanwhile, a notable share of males (15%) assigns only moderate or lower priority to these concerns, which may reflect traditional gender roles where women are primarily responsible for managing household budgets and ensuring food security. These findings suggest that food security initiatives should adopt gender-sensitive approaches that recognize women's key role in financial management and decision-making within households. By focusing on empowering women through education and support programs related to budgeting and affordable food choices, policymakers can better address food affordability challenges and enhance household well-being in a more inclusive and effective manner. Research indicates that women place greater emphasis on economic factors in food purchasing decisions than men, with 60% of female respondents identifying price and affordability as their top priority, compared to 45% of male respondents (Loginova, D., & Mann, S. (2024).

Priority Ranking on Health Benefits of Food

Table 5 outlines the distribution of household heads' priority ratings on the health benefits of food, categorized by gender. This data provides insights into how much weight male and female respondents place on the nutritional value and health benefits of the food they purchase for their households.

Table 5
Priority ratings on health benefits of food as influenced by gender and household headship in Claveria, Misamis Oriental

FOOD HEALTH BENEFITS PRIORITY RATINGS	HOUSEHOLD HEADS			
	MALE		FEMALE	
	Frequency	Percentage	Frequency	Percentage
Highest Priority	41	41.0	31	31.0
Very Highest Priority	28	28.0	39	39.0
Moderate Priority	22	22.0	24	24.0
Low Priority	9	9.0	5	5.0
Least Priority	0	0.0	1	1.0
Total	100	100.0	100	100.0

The data in Table 5 reveal a notable gender disparity in the prioritization of health benefits when selecting food. While 39% of female household heads consider health benefits as a very highest priority and an additional 31% as the highest priority, only 28% and 41% of male respondents, respectively, rate these levels of importance. Conversely, 9% of males rate health benefits as a low priority and none as the least priority, compared to 5% and 1% of females, respectively. This indicates that women tend to place greater emphasis on the nutritional and health aspects of food compared to men, who appear relatively less concerned with these factors. The differences may be linked to women's traditional roles as caregivers, focusing on family health and nutrition. These findings suggest that public health campaigns and nutrition education programs should consider gender-specific messaging to effectively promote healthier food choices. Tailoring interventions to address women's higher sensitivity to health benefits could enhance household nutrition, while strategies aimed at increasing men's awareness may foster more balanced decision-making regarding food quality and health. Research consistently reveals gender-based differences in attitudes toward food and health, with women more likely than men to prioritize the health benefits and nutritional value of the foods they consume (Lone et al., 2009).

Priority Ranking of the Flavor of Food

Table 6 shows the distribution of household heads' priority ratings on the flavor and household preference in food, categorized by gender. This data highlights the relative importance of taste and preferences of the majority in the household when it comes to food choices.

Table 6
Priority ratings on food flavor or preferences of the majority in the household as influenced by gender and household headship in Claveria, Misamis Oriental

FOOD FLAVOR OR PREFERENCES PRIORITY RATINGS	HOUSEHOLD HEADS			
	MALE		FEMALE	
	Frequency	Percentage	Frequency	Percentage
Highest Priority	13	13.0	8	8.0
Very Highest Priority	21	21.0	23	23.0
Moderate Priority	48	48.0	41	41.0
Low Priority	16	16.0	22	22.0
Least Priority	2	2.0	6	6.0
Total	100	100.0	100	100.0

Results showed that flavor and household preference hold varying degrees of importance among male and female household heads. A larger proportion of female respondents (23%) rated flavor as a very highest priority compared to 21% of males, while only 8% of females considered it their highest priority versus 13% of males. However, the majority of both males (48%) and females (41%) regarded flavor as a moderate priority in their food choices. Notably, a higher percentage of females (28%) assigned low or least priority to flavor compared to males (18%). These findings suggest that while flavor and household preferences are important considerations for both genders, men tend to give slightly more emphasis to flavor as a key factor. This difference may reflect gender-specific attitudes toward taste and collective household food preferences. The implications point to the need for food programs and marketing strategies to acknowledge these nuances, ensuring that both flavor and household preferences are incorporated in food interventions to satisfy the diverse priorities of all household members. Recent studies have identified notable gender differences in food preferences and eating habits, with women generally favoring healthier choices such as whole grains, vegetables, and plant-based foods, while men are more likely to consume meat and processed foods (Lombardo et al., 2019; Feraco et al., 2024).

Priority Ranking on Accessibility and Availability of Food

Table 7 reflects the significance respondents place on the convenience and availability of food when making purchasing decisions for their households. Both male and female household heads generally place low priority on the accessibility and availability of food. Only a small percentage of males (12%) rated it as either highest or very highest priority—specifically, 1% as highest and 11% as very highest priority—while females rated these categories slightly higher at 14% combined (1% highest and 13% very highest). However, the vast majority of both males (74%) and females (65%) rated accessibility and availability as low or least priority, indicating that most respondents do not perceive food access as a significant concern. Females showed marginally less emphasis on accessibility compared to males.

Table 7

Priority ratings on accessibility and availability of food as influenced by gender and household headship in Claveria, Misamis Oriental

FOOD ACCESSIBILITY AND AVAILABILITY PRIORITY RATING	HOUSEHOLD HEADS			
	MALE		FEMALE	
	Frequency	Percentage	Frequency	Percentage
Highest Priority	1	1.0	1	1.0
Very High Priority	11	11.0	13	13.0
Moderate Priority	14	14.0	21	21.0
Low Priority	73	73.0	63	63.0
Least Priority	1	1.0	2	2.0
Total	100	100.0	100	100.0

These findings suggest that food availability and access are generally stable across households, allowing respondents to focus more on other factors such as price, health, and preference. Food policy efforts should thus maintain reliable supply chains and consider gender differences in perceived food access challenges, particularly in male-headed households that may have slightly higher concern over availability. Research on gender differences in household food security perceptions reveals complex and nuanced dynamics. One study initially found that female-headed households appeared to have higher odds of food security; however, after controlling for confounding variables, results indicated that male-headed households were actually 20% more likely to be food secure (Guirindola et al., 2022).

Priority Ranking on Recommended by Somebody

Table 8 shows the importance respondents place on personal recommendations when making food purchasing decisions for their households. Data show that being “recommended by somebody” is overwhelmingly considered the least priority by both male and female household heads when making food purchasing decisions. Specifically, 96% of males and 91% of females rated recommendations as their least priority. Only a very small fraction of respondents assigned moderate or low priority to this factor, with none rating it as the highest priority. Results indicate that personal recommendations have minimal influence on the food choices of most household heads, suggesting that decisions are driven more by other considerations such as price, health benefits, and flavor.

Table 8
Priority ratings on food per recommendation by somebody, as influenced by gender and household headship in Claveria, Misamis Oriental

RECOMMENDED FOOD PRIORITY RATING	HOUSEHOLD HEADS			
	MALE		FEMALE	
	Frequency	Percentage	Frequency	Percentage
Highest Priority	0	0.0	0	0.0
Very High Priority	1	1.0	0	0.0
Moderate Priority	2	2.0	3	3.0
Low Priority	1	1.0	6	6.0
Least Priority	96	96.0	91	91.0
Total	100	100.0	100	100.0

For policymakers and marketers, this finding implies that strategies relying on word-of-mouth or social recommendations may have limited effectiveness in shaping food purchasing behavior. Instead, efforts should focus on addressing the more significant factors that directly impact household food decisions. Notably, personal recommendations were consistently ranked as the lowest priority in food choice motivations by both male and female household heads, with 96% of males and 91% of females identifying it as their least important consideration (Tate et al., 2024).

Household Roles in Meal Preparation

Table 9 shows the distribution of household heads' roles in meal preparation, categorized by gender. This data highlights the distribution of responsibility for meal preparation within the household and reflects gender roles in cooking duties. Results show a clear gender disparity in the roles of meal preparation. A significant proportion of female respondents (64%) indicated that they are primarily responsible for meal preparation, whereas only 25% of male respondents reported the same. On the other hand, male respondents tend to delegate meal preparation duties to their spouse, with 60% of the responsibility falling to the spouse, compared to only 20% of female respondents. Additionally, fewer female respondents reported roles like parent or house helper (1%) in preparing meals, indicating a stronger association between women and meal preparation in the household.

This data highlights the traditional gender-based division of labor within the home, where women are primarily responsible for cooking, while men tend to take on supporting roles. These insights can inform social and cultural studies regarding gender roles and domestic responsibilities. Research consistently demonstrates a persistent gender disparity in household meal preparation and food shopping responsibilities, with multiple studies showing that women are significantly more likely than men to assume primary responsibility for these tasks (Flagg et al., 2013; Lopez Mato et al., 2022; Storz et al., 2022).

Table 9
Household roles in meal preparation as influenced by gender and household headship in Claveria, Misamis Oriental

MEAL PREPARATION ROLE	HOUSEHOLD HEADS			
	MALE		FEMALE	
	Frequency	Percentage	Frequency	Percentage
Household Head	25	25.0	64	64.0
Spouse	60	60.0	20	20.0
Son/Daughter	5	5.0	12	12.0
Parents	2	2.0	1	1.0
Parent-in-law	0	0	1	1.0
House helper	1	1.0	1	1.0
Others	7	7.0	1	1.0
Total	100	100.0	100	100.0

Household Usual Meal Patterns

Table 10 shows the distribution of household heads' usual meal patterns, categorized by gender. This data provides insight into the typical meal structures and snack consumption patterns for households based on gendered preferences or roles.

Table 10
Household meal patterns as influenced by gender and household headship in Claveria, Misamis Oriental

MEAL PATTERNS	HOUSEHOLD HEADS			
	MALE		FEMALE	
	Frequency	Percentage	Frequency	Percentage
Breakfast, Lunch, Dinner	55	55.0	65	65.0
Breakfast, Lunch, Dinner and 1 Snacks	37	37.0	28	28.0
Breakfast, Lunch, Dinner and 2 Snacks	7	7.0	4	4.0
Others	1	1.0	3	3.0
Total	100	100.0	100	100.0

The data reveals some notable differences between male and female respondents regarding household meal patterns. A larger proportion of female respondents (65%) reported having the traditional meal pattern of Breakfast, Lunch, and Dinner, while male respondents closely followed with 55%. Interestingly, male respondents tend to have a slightly higher rate of adding snacks to their meals, with 37% reporting Breakfast, Lunch, Dinner, and 1 Snack compared to only 28% of female respondents. However, female respondents exhibited a greater tendency to include more snacks, with 4% opting for Breakfast, Lunch, Dinner, and 2 Snacks, while only 7% of males did the same. These findings highlight slight differences in food consumption patterns, possibly influenced by gender roles or lifestyle habits, and could inform future studies on gender and nutrition in household food behaviors. Research on meal patterns highlights notable gender and demographic differences. While most adolescents consume three main meals per day, snacks and in-between meals significantly contribute to their overall energy intake (Sjöberg et al., 2003).

Household Staple Meal Consumption

Table 11 presents the distribution of household staple meals consumed by male and female respondents. This data provides insight into the prevalence of various staple foods within households and highlights potential gender differences in dietary patterns.

Table 11
Household staple meal as influenced by gender and household headship in Claveria, Misamis Oriental

GENDER	FOOD STAPLES (%)						
	Rice	Corn	Adlai	Banana 'Saba'	Cassava	Sweet Potato	Others
Male	N/A	8.0	32.0	97.0	42.0	47.0	98.0
	Yes	92.0	68.0	3.0	58.0	53.0	2.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Female	N/A	3.0	51.0	98.0	38.0	57.0	98.0
	Yes	97.0	49.0	2.0	62.0	43.0	2.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0

The table indicates that rice is the most commonly consumed staple food among both male and female respondents, with 92% of males and 97% of females reporting regular consumption. Corn consumption is notably higher among males (68%) than among females (49%). Conversely, adlai shows very low consumption rates across genders, with over 97% reporting non-consumption (N/A). Consumption of banana 'saba' is relatively balanced but slightly higher among females (62%) than males (58%). Other staples, such as cassava and sweet potato, also show moderate consumption, with males generally consuming these more than females. The "Others" category is rarely consumed by either gender. These patterns suggest gender-related preferences or availability that may influence household nutrition. Understanding these differences is important for designing gender-sensitive nutrition programs and food security interventions. In the Philippines, studies have found that rice-based dietary patterns are linked to lower odds of experiencing the double burden of malnutrition among males, whereas vegetable- and corn-based dietary patterns are associated with an increased risk among females (de Juras et al., 2022).

Ranking of Preferred Household Staples

Table 12
Household ranking of staple foods based on preferences of household heads as influenced by gender in Claveria, Misamis Oriental

PREFERENCE LEVEL	FOOD STAPLE (%)					
	Rice	Corn	Adlai	Banana 'Saba'	Cassava	Sweet Potato
Male						
Most Preferred	72.0	28.0	1.0	1.0	0.0	1.0
Very Preferred	23.0	52.0	1.0	15.0	4.0	9.0
Moderately Prepared	2.0	5.0	3.0	58.0	15.0	21.0
Slightly Preferred	0.0	4.0	2.0	17.0	49.0	22.0
Least Preferred	3.0	9.0	3.0	8.0	30.0	41.0
Not Preferred	0.0	2.0	90.0	1.0	2.0	6.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Female						
Most Preferred	75.0	22.0	1.0	0.0	0.0	2.0
Very Preferred	19.0	54.0	1.0	16.0	3.0	6.0
Moderately Prepared	1.0	11.0	5.0	50.0	12.0	27.0
Slightly Preferred	1.0	5.0	3.0	24.0	42.0	25.0
Least Preferred	3.0	8.0	2.0	10.0	37.0	35.0
Not Preferred	1.0	0.0	88.0	0.0	6.0	5.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 12 presents the ranking of preferred household staple foods according to male and female respondents. This data illustrates the degree of preference for different staple foods, providing a clearer understanding of household dietary choices and gender-based differences in food preference.

The data indicate that rice remains the staple food most preferred by both male and female respondents, with 72% of males and 75% of females ranking it as their most preferred staple. Corn is ranked very preferred by a majority of respondents (52% of males, 54% of females), though fewer choose it as their most preferred. Adlai is largely not preferred, with 90% of males and 88% of females ranking it as not preferred, indicating low acceptance. 'Saba' banana and cassava have moderate rankings, with many respondents choosing them as moderately or slightly preferred, suggesting these staples are acceptable but not favorites. Sweet potato also shows a varied preference but tends toward lower rankings, such as least or slightly preferred, especially among females. Rice continues to be a vital staple food worldwide, especially in Asia, where it contributes up to 50% of the dietary calorie intake for millions of people (Muthayya et al., 2014).

Frequency of Daily Meal Preparation and/or Eating

Table 13 presents the frequency at which male and female respondents prepare and/or consume staple meals such as rice and corn on a daily basis. This data provides insight into meal consumption habits and potential gender differences in dietary routines. The table shows that rice is consumed most frequently three times a day by both males (75%) and females (81%), highlighting its status as a daily staple in most households. Corn consumption is notably less frequent, with only 38% of males and 28% of females eating it thrice daily. Interestingly, a significant proportion of respondents never consume corn daily, with 48% of males and 55% of females indicating no daily consumption.

Females also show a higher frequency of consuming rice more than three times a day (11%) compared to males (2%), suggesting possible gender differences in meal preparation or consumption patterns. These findings reflect rice's dominant role in daily meals and the more variable consumption of corn, which can inform nutritional planning and culturally appropriate food programs. Research on food consumption patterns across regions highlights significant gender differences. In Bangladesh, rice remains the dominant staple, consumed multiple times daily by both men and women, with studies indicating that women tend to consume more rice than men (Sudo et al., 2004; Rahman et al., 2021).

Table 13
Daily meal preparation and/or eating among households as influenced by gender and household headship in Claveria, Misamis Oriental

DAILY MEAL PREPARATION AND/OR EATING		FOOD STAPLES (%)	
BY GENDER		Rice	Corn
Male	Once a day	5.0	8.0
	Twice a day	4.0	6.0
	Thrice a day	75.0	38.0
	More than 3 times	2.0	0.0
	Never	14.0	48.0
	Total	100.0	100.0
Female	Once a day	5.0	11.0
	Twice a day	3.0	6.0
	Thrice a day	81.0	28.0
	More than 3 times	11.0	0.0
	Never	0.0	55.0
	Total	100.0	100.0

Distribution of Preferred Rice Varieties

Table 14 displays the distribution of preferred rice varieties among male and female respondents. This data highlights the consumption patterns and preferences for different rice types within households based on gender. The table indicates a low overall preference for most rice varieties, as evidenced by the high percentages of non-consumption (NA) among both males and females. Sinandomeng and Dinorado varieties are least preferred, with only 2% of respondents in both genders indicating consumption. Valencia rice has a moderate acceptance with 21% of both males and females consuming it. Jasmine rice is slightly more favored among males (9%) compared to females (5%). Long-grain rice shows a balanced preference, with males (50%) and females (56%) equally likely to consume it.

Pigmented, brown, and other rice varieties show low consumption rates, particularly among females. These findings suggest that while some rice varieties like long-grain have significant acceptance, traditional varieties such as Sinandomeng and Dinorado remain less favored. Understanding these preferences can guide rice marketing strategies and nutritional recommendations tailored to gender and community tastes. Research on rice preferences reveals notable gender differences in varietal selection and consumption patterns. In Ghana, female farmers tend to prioritize traits such as good taste, early maturity, and high yield, whereas male farmers place greater emphasis on marketability and cooking quality (Asante et al., 2023).

Table 14

Preferred rice varieties among households as influenced by gender and household headship in Claveria, Misamis Oriental

PREFERRED RICE VARIETY	MALE, %			FEMALE, %		
	N/A	Yes	Total	N/A	Yes	Total
Sinandomeng	98.0	2.0	100.0	98.0	2.0	100.0
Dinorado	98.0	2.0	100.0	98.0	2.0	100.0
Valencia	79.0	21.0	100.0	79.0	21.0	100.0
Jasmine	91.0	9.0	100.0	95.0	5.0	100.0
Long grain	50.0	50.0	100.0	44.0	56.0	100.0
Pigmented	90.0	10.0	100.0	97.0	3.0	100.0
Brown	98.0	2.0	100.0	99.0	1.0	100.0
Others	89.0	11.0	100.0	80.0	20.0	100.0

Distribution of Preferred Corn Varieties

Table 15 provides insight into the consumption patterns and preferences for different types of corn within households based on gender. Data reveal very low consumption rates for most corn varieties among both male and female respondents, with exceptionally high non-consumption percentages (NA) across the board. Tinigib and Lagkitan varieties are nearly not consumed, with 99% to 100% indicating non-preference. The Sige-Sige variety shows moderate consumption among males (33%) but considerably lower among females (16%). Other yellow and white corn varieties have minimal acceptance, particularly among females, where 28% reported consuming other white corn compared to only 13% of males. Pigmented corn is not consumed at all by respondents from either gender. The "Others" category has low but slightly higher consumption among males (12%) compared to females (7%).

These results suggest limited preference for traditional and pigmented corn varieties, signaling a potential shift away from these types. The findings can inform agricultural programs and corn variety promotion strategies tailored to local preferences and gender considerations. These gender-specific preferences are shaped by the distinct roles, responsibilities, and cultivation conditions that men and women experience within households (Weltzien et al., 2019).

Table 15

Preferred corn varieties among households as influenced by gender and household headship in Claveria, Misamis Oriental

PREFERRED CORN VARIETY	MALE, %			FEMALE, %		
	N/A	Yes	TOTAL	N/A	Yes	TOTAL
Tinigib	99.0	1.0	100.0	99.0	1.0	100.0
Lagkitan	100.0	0.0	100.0	100.0	0.0	100.0
Sige-sige	67.0	33.0	100.0	84.0	16.0	100.0
Other yellow corn	94.0	6.0	100.0	95.0	5.0	100.0
Other white corn	87.0	13.0	100.0	72.0	28.0	100.0
Pigmented	100.0	0.0	100.0	100.0	0.0	100.0
Others	88.0	12.0	100.0	93.0	7.0	100.0

Consumption of Rice Varieties

Table 16 illustrates the perceived distribution of rice variety consumption by gender within the household, as reported by male and female respondents. This data reveals who primarily consumes specific rice types—whether women only, men only, mostly women, mostly men, both equally, or if the variety is not applicable. The data reveal that the majority of rice varieties are consumed equally by both men and women within the household, particularly for Valencia, Jasmine, and Long-grain rice, where 19%, 9%, and 39% of male respondents, and 19%, 4%, and 41% of female respondents, respectively, reported equal consumption. Very few rice varieties are exclusively consumed by either gender, with negligible percentages indicating “women only” or “men only” consumption. The high “Not applicable” percentages suggest many respondents do not recognize some rice varieties as commonly consumed in their households.

Table 16

Consumption of rice varieties among households as influenced by gender and household headship in Claveria, Misamis Oriental

CONSUMPTION BY GENDER	RICE VARIETY (%)							
	Sinandomeng	Dinorado	Valencia	Jasmine	Long-grain	Pigmented	Brown	Other
Male								
Women only 100%	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0
Men only 100%	0.0	0.0	1.0	0.0	5.0	1.0	1.0	1.0
Women mostly > 75%	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0
Men mostly > 75%	0.0	0.0	1.0	0.0	1.0	0.0	1.0	0.0
Both equally	2.0	0.0	19.0	9.0	39.0	7.0	0.0	10.0
Not applicable	98.0	99.0	79.0	90.0	53.0	92.0	98.0	89.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Female								
Women only 100%	0.0	0.0	1.0	0.0	4.0	0.0	0.0	2.0
Men only 100%	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
Women mostly > 75%	0.0	0.0	1.0	0.0	1.0	0.0	0.0	0.0
Men mostly > 75%	0.0	0.0	0.0	1.0	2.0	0.0	1.0	0.0
Both equally	2.0	2.0	19.0	4.0	41.0	1.0	0.0	18.0
Not applicable	98.0	98.0	79.0	95.0	51.0	99.0	99.0	80.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

This equitable consumption pattern highlights shared dietary habits among household members and points to the importance of inclusive nutrition programs that address the needs of all genders equally. Recent studies suggest that rice consumption patterns between men and women within households are generally equitable, with minimal gender-exclusive consumption. In rural Bangladesh, while diets are

relatively equitable across genders, they remain suboptimal across different socioeconomic groups (Coleman et al., 2023).

Consumption of Corn Varieties

The data presented in Table 17 shows the perceived gender-based consumption of various corn varieties within households, based on responses from male and female participants. Overall, the majority of respondents, both male and female, indicated that the consumption of corn varieties such as tinigib, lagkitan, other yellow corn, other white corn, pigmented corn, and others was not applicable to gender-based consumption patterns, as seen by the very high percentages ranging from 87% to 100% under the "Not applicable" category. This suggests that these corn varieties are either not commonly consumed or that their consumption is not perceived to be associated with a specific gender within the household.

Table 17
Consumption of corn varieties among households as influenced by gender and household headship in Claveria, Misamis Oriental

CONSUMPTION BY GENDER	CORN VARIETY (%)						
	Tinigib	Lagkitan	Sige-Sige	Other Yellow Corn	Other White Corn	Pigmented	Brown
Male							
Women only 100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Men only 100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Women mostly > 75%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Men mostly > 75%	0.0	0.0	33.0	6.0	13.0	0.0	0.0
Both equally	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Not applicable	99.0	100.0	67.0	94.0	87.0	100.0	100.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Female							
Women only 100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Men only 100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Women mostly > 75%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Men mostly > 75%	0.0	0.0	16.0	5.0	0.0	28.0	0.0
Both equally	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Not applicable	99.0	100.0	84.0	95.0	100.0	72.0	100.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notably, the Sige-Sige corn variety showed a more distinct pattern. Among male respondents, 33% perceived that men mostly consume Sige-Sige corn, while 6% indicated the same for Other Yellow Corn, and 13% for Other White Corn. Similarly, female respondents noted that men mostly consumed Sige-Sige corn at 16%, and Pigmented Corn at 28%, though these percentages are lower in comparison. Interestingly, no respondents from either gender perceived women as the primary consumers of any corn variety, as the categories "Women only" and "Women mostly" received zero responses across the board.

Additionally, very few respondents selected the "Both equally" option, with only 1% of both males and females choosing it for Tinigib corn, implying that shared consumption between men and women is rarely perceived or acknowledged. These results suggest that gender-based consumption patterns for corn varieties are generally not recognized in most households, except for a few specific types, such as Sige-Sige and Pigmented corn, where men are seen as the dominant consumers.

Common Cooking Methods Used for Food Staples

Table 18 illustrates the common cooking methods used for various food staples by male and female respondents. The data highlights how different staples such as rice, corn, adlai, banana (Saba), cassava, and sweet potato are typically prepared in households, indicating possible gender-based variations in cooking practices.

Table 18
Cooking method used for food staples among households as influenced by gender and household headship in Claveria, Misamis Oriental

COOKING METHOD USED		FOOD STAPLES (%)					
		Rice	Corn	Adlai	Banana, Saba	Cassava	Sweet Potato
Male							
Raw	NA	99.0	99.0	100.0	75.0	99.0	99.0
	Yes	1.0	1.0	0.0	25.0	1.0	1.0
Boiling	NA	2.0	7.0	83.0	1.0	3.0	2.0
	Yes	98.0	93.0	17.0	99.0	97.0	98.0
Steaming	NA	100.0	95.0	100.0	99.0	100.0	100.0
	Yes	0.0	5.0	0.0	1.0	0.0	0.0
Frying	NA	99.0	100.0	99.0	46.0	100.0	51.0
	Yes	1.0	0.0	1.0	54.0	0.0	49.0
Not Applicable	NA	99.0	100.0	99.0	46.0	100.0	51.0
	Yes	1.0	0.0	1.0	54.0	0.0	49.0
Others	NA	100.0	96.0	100.0	100.0	98.0	100.0
	Yes	0.0	4.0	0.0	0.0	2.0	0.0
Female							
Raw	NA	100.0	100.0	100.0	89.0	100.0	100.0
	Yes	0.0	0.0	0.0	11.0	0.0	0.0
Boiling	NA	2.0	9.0	81.0	2.0	6.0	4.0
	Yes	98.0	91.0	19.0	98.0	94.0	96.0
Steaming	NA	97.0	94.0	100.0	98.0	99.0	98.0
	Yes	3.0	6.0	0.0	2.0	1.0	2.0
Frying	NA	91.0	98.0	100.0	40.0	99.0	57.0
	Yes	9.0	2.0	0.0	60.0	1.0	43.0
Not Applicable	NA	97.0	99.0	99.0	91.0	81.0	91.0
	Yes	3.0	1.0	1.0	9.0	19.0	9.0
Others	NA	100.0	93.0	100.0	100.0	93.0	98.0
	Yes	0.0	7.0	0.0	0.0	7.0	2.0

The table demonstrates that boiling is the predominant cooking method for most food staples among both males and females, with high percentages reporting its use for rice, corn, adlai, banana (Saba), cassava, and sweet potato. Raw consumption is rare except for banana (Saba), where 25% of males and 11% of females report eating it raw. Steaming and frying are less commonly used, though frying shows moderate use for banana (Saba) and sweet potato, especially among females. The high “Not applicable” percentages for several categories suggest certain cooking methods are irrelevant or rarely applied to specific staples. These findings reveal common culinary practices differentiated slightly by gender and can guide nutrition education and food preparation recommendations tailored to household cooking habits. Research examines the impact of different cooking methods on nutrient retention in various staple crops. Boiling emerges as a commonly used technique that generally retains nutrients more effectively compared to baking or frying (De Moura et al., 2015; Yang et al., 2016).

Timing of Preparation and/or Consumption of Staples

Table 19 displays the timing of preparation and/or consumption of staple foods—rice and corn—among male and female respondents throughout different meal occasions during the day. This data

provides insight into eating habits and gender-based differences in the timing of staple food consumption.

Table 19
Timing of preparation and/or consumption of staples among households as influenced by gender and household headship in Claveria, Misamis Oriental

TIMING OF PREPARATION AND/OR CONSUMPTION		FOOD STAPLES (%)			
		Rice		Corn	
		Male	Female	Male	Female
Breakfast	NA	16.0	12.0	60.0	67.0
	Yes	84.0	88.0	40.0	33.0
Morning Snack	NA	98.0	94.0	100.0	98.0
	Yes	2.0	6.0	0.0	2.0
Lunch	NA	25.0	18.0	53.0	65.0
	Yes	75.0	82.0	47.0	35.0
Afternoon Snack	NA	90.0	98.0	93.0	91.0
	Yes	10.0	2.0	7.0	9.0
Dinner	NA	25.0	16.0	54.0	61.0
	Yes	75.0	84.0	46.0	39.0
Midnight Snack	NA	100.0	99.0	100.0	100.0
	Yes	0.0	1.0	0.0	0.0
Never	NA	86.0	89.0	53.0	46.0
	Yes	14.0	11.0	47.0	54.0

The table shows that rice is predominantly consumed during main meals such as breakfast, lunch, and dinner by both males and females, with consumption rates ranging from 75% to 88%. Corn consumption during these meals is considerably lower, particularly among females, with less than half reporting its intake at lunch and dinner. Snacks such as morning and afternoon are rarely associated with consumption of rice or corn, indicated by the high “Not Applicable” percentages. Midnight snacks involving these staples are almost non-existent. The “Never” category for corn shows a higher rate than rice, with nearly half of respondents reporting they never consume corn. These findings highlight rice as the staple predominantly consumed across all main meals, while corn is less integrated into daily meal timing, suggesting a potential focus for dietary interventions or meal planning based on gender and staple preference. Research on staple food consumption patterns highlights gender-specific preferences and differences in meal timing. Women are more likely to consume rice and bananas, whereas men tend to prefer maize and cassava (Bechoff et al., 2020).

Knowledge of Health or Nutrition Benefits of Consuming Staples

Table 20 illustrates the level of knowledge among male and female respondents regarding the health and nutritional benefits of consuming various staple foods, including rice, corn, adlai, banana/saba, cassava, and sweet potato. This data provides insight into gender differences in awareness of nutritional value associated with these staples.

The table reveals a generally high level of awareness among both male and female respondents about the health and nutritional benefits of most staples, with corn, banana/Saba, cassava, and sweet potato having over 75% affirmative responses. Rice shows somewhat lower awareness, especially among males (62%), but females report higher knowledge at 71%. Knowledge of adlai's benefits is comparatively lower, with less than half of respondents acknowledging its nutritional value. Females consistently demonstrate slightly higher awareness than males across all staples. This difference suggests potential gender influences on nutrition knowledge that could inform targeted educational campaigns to promote healthier dietary choices within households. Research shows differing levels of awareness about the nutritional benefits of various staple foods across populations. In East Africa,

gender plays a significant role in staple food choices, with women more likely to consume rice and banana, while men tend to prefer maize and cassava (Bechoff et al., 2020).

Table 20
Knowledge of health or nutrition benefits of consuming staples as influenced by gender and household headship in Claveria, Misamis Oriental

FOOD STAPLE	MALE %			FEMALE %		
	Yes	No	TOTAL	Yes	No	TOTAL
Rice	62.0	38.0	100.0	71.0	29.0	100.0
Corn	91.0	9.0	100.0	91.0	9.0	100.0
Adlai	46.0	54.0	100.0	48.0	52.0	100.0
Banana/Saba	77.0	23.0	100.0	82.0	18.0	100.0
Cassava	75.0	25.0	100.0	75.0	25.0	100.0
Sweet Potato	85.0	15.0	100.0	85.0	15.0	100.0

Consumption of Household Staples and Carbohydrate Sources

Table 21 presents the frequency of consumption of various household staples and carbohydrate sources among male and female respondents. This data provides insight into how often these foods are consumed, ranging from daily to never, and highlights gender differences in dietary pattern. The data reveal that white rice is the most frequently consumed staple among both males and females, with 77% of males and 81% of females reporting daily consumption. Brown rice consumption is minimal, especially among females, where 59% report never consuming it at all. Noodles and pasta are occasionally consumed, with more frequent intake among males than females. Corn varieties and corn grits show varied frequency, with a general trend of low daily consumption but occasional use among respondents. Root crops like cassava, sweet potato, and taro are more commonly consumed sometimes or rarely, with a noticeable percentage reporting never having consumed certain staples.

Table 21
Consumption of household staples and carbohydrate sources as influenced by gender and household headship in Claveria, Misamis Oriental

FREQUENCY		FOOD STAPLES (%)														
		Rice, white	Rice, Brown	Noodle /Pasta	Corn, Yellow	White corn grits	Yellow corn grits	Mixed yellow and white corn grits	Break-fast cereals	Bread	Cassava	Sweet Potato	Potato	Banana 'Saba'	Taro	Other
Male	Every day (7 days a week)	77.0	4.0	3.0	14.0	3.0	21.0	5.0	2.0	2.0	21.0	3.0	1.0	5.0	1.0	4.0
	Most days of the week (4-6 days a week)	2.0	1.0	9.0	3.0	2.0	8.0	2.0	0.0	2.0	16.0	6.0	0.0	8.0	1.0	5.0
	Sometimes (1-3 days a week)	5.0	6.0	51.0	11.0	6.0	11.0	3.0	3.0	2.0	41.0	23.0	2.0	34.0	13.0	16.0
	Rarely (Once every 4 weeks)	11.0	11.0	23.0	17.0	13.0	14.0	14.0	1.0	7.0	17.0	38.0	6.0	37.0	9.0	27.0
	Never consumed in the past 4 weeks	4.0	12.0	10.0	35.0	36.0	23.0	33.0	30.0	12.0	3.0	25.0	10.0	15.0	53.0	32.0
	Never consumed at all	1.0	66.0	4.0	20.0	40.0	23.0	43.0	64.0	75.0	2.0	5.0	81.0	1.0	23.0	16.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Female	Every day (7 days a week)	81.0	0.0	0.0	13.0	0.0	18.0	2.0	2.0	1.0	26.0	3.0	1.0	4.0	0.0	1.0
	Most days of the week (4-6 days a week)	3.0	0.0	4.0	10.0	1.0	15.0	3.0	1.0	1.0	13.0	5.0	0.0	6.0	1.0	6.0
	Sometimes (1-3 days a week)	8.0	8.0	47.0	9.0	8.0	13.0	9.0	7.0	5.0	31.0	27.0	2.0	39.0	9.0	15.0
	Rarely (Once every 4 weeks)	4.0	10.0	37.0	24.0	16.0	13.0	13.0	5.0	11.0	25.0	35.0	4.0	35.0	18.0	34.0
	Never consumed in the past 4 weeks	4.0	23.0	6.0	26.0	32.0	16.0	22.0	12.0	13.0	3.0	25.0	15.0	15.0	64.0	41.0
	Never consumed at all	0.0	59.0	6.0	18.0	43.0	25.0	51.0	73.0	69.0	2.0	5.0	78.0	1.0	8.0	3.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

These findings indicate dietary diversity with a dominant reliance on white rice, while other carbohydrate sources play complementary but less frequent roles. The gender differences in consumption frequency suggest areas for targeted nutrition education and food security programs. In Malaysia, white rice is the most commonly consumed staple food, with 97% of adults reportedly eating it twice a day (Norimah et al., 2008).

Motivations for Food Choices Related to Alternative Staples

This section provides an analysis of the motivations behind food choices, particularly focusing on alternative staples, in Claveria, Misamis Oriental. The analysis includes six key motivational factors: Healthy Motivations, Emotional Motivations, Economic Availability Motivations, Social and Cultural Motivations, Environmental and Political Motivations, and Market and Commercial Motivations.

Table 22 indicates that both male and female respondents in Claveria, Misamis Oriental, demonstrate strong motivations for healthy food choices. Females reported a slightly higher overall mean of 4.01, compared to 3.91 for males. This suggests that, while both genders are motivated to maintain healthy eating habits, females show a marginally stronger inclination towards making health-conscious food choices. The slight difference in the overall measure reflects a greater emphasis among females on factors such as avoiding processed foods and ensuring their diet contains essential nutrients. However, both genders prioritize health and food safety similarly. Research indicates that gender differences influence food-related behaviors and perceptions of healthy eating, with women generally showing a stronger tendency toward health-conscious food choices compared to men (Missagia et al., 2013; Wardle et al., 2004).

Table 22
Healthy motivation for food choices related to alternative staples among households in Claveria, Misamis Oriental

HEALTHY MOTIVATIONS	MALE			FEMALE		
	Mean	SD	Interpretation	Mean	SD	Interpretation
I am very concerned about the hygiene and safety of the food I eat.	4.69	0.63	Strong Agree	4.64	0.48	Strongly Agree
It is important for me to eat food that keeps me healthy.	4.60	0.70	Strong Agree	4.52	0.52	Strongly Agree
Usually, I follow a healthy and balanced diet.	3.86	1.24	Strong Agree	4.09	0.88	Strongly Agree
It is important for me that my daily diet contains a lot of vitamins and minerals.	4.39	0.80	Strong Agree	4.37	0.63	Strongly Agree
I eat foods to sustain my energy needs for the day.	4.34	0.77	Strong Agree	4.31	0.63	Strongly Agree
It is important for me that my diet is low in fat.	3.86	1.04	Strong Agree	3.82	1.05	Strongly Agree
I avoid eating processed foods, because of their lower nutritional quality.	3.46	1.16	Strong Agree	3.68	0.99	Strongly Agree
I try to eat foods that do not contain additives.	2.96	1.22	Agree	3.28	0.95	Strongly Agree
I avoid foods with genetically modified organisms.	2.98	1.15	Agree	3.36	1.01	Strongly Agree
Overall Mean	3.91	0.97	Strong Agree	4.01	0.79	Strongly Agree

Legend: 1.00–2.15 (Strongly Disagree), 2.16–2.45 (Disagree), 2.46–2.50 (Neutral), 2.51–3.26 (Agree), 3.27–5.00 (Strongly Agree)

Table 23 indicates that both male and female respondents in Claveria, Misamis Oriental, exhibit similar emotional motivations for food choices. Females reported a slightly higher overall mean of 3.35, compared to 3.32 for males, reflecting a marginal difference in emotional motivations between the two genders. While both males and females use food as a means of coping with stress and emotional

comfort, females tend to report slightly higher emotional responses, such as eating more when feeling lonely or depressed. However, the difference between genders is minimal, indicating that emotional motivations related to food choices are similarly important for both male and female respondents. Despite these small variations, the data suggest that food serves as an emotional outlet for both genders, with a slight tendency for females to engage more in emotional eating behaviors.

The highest-rated item for both males and females is "Food that I eat makes me feel good." Males rated this item with a mean score of 3.78 (SD = 0.95), categorized as "Strongly Agree," while females rated it with a mean score of 3.72 (SD = 0.91), also categorized as "Strongly Agree." Although both genders strongly agree with this statement, males show a slightly higher level of agreement, indicating that food has a slightly stronger emotional positive impact on males than on females. Men tend to gravitate towards red and processed meats, consuming them at notably higher rates than their female counterparts. Conversely, women exhibit a greater preference for vegetables, whole grains, tofu, and dark chocolate with high cocoa content, aligning with generally recognized healthier food choices (Feraco et al., 2024).

For the lowest-rated item, "I have more cravings for sweets when I am depressed," males rated it with a mean score of 2.65 (SD = 1.22), categorized as "Agree," whereas females rated it with a mean score of 2.90 (SD = 1.10), also categorized as "Agree." This suggests that females tend to experience more cravings for sweets when feeling depressed compared to males, reflecting a stronger emotional connection between food and mood in females.

Table 23
Emotional motivation for food choices related to alternative staples among households in Claveria, Misamis Oriental

EMOTIONAL MOTIVATION	MALE			FEMALE		
	Mean	SD	Interpretation	Mean	SD	Interpretation
Food helps me cope with stress.	3.66	1.07	Strong Agree	3.64	1.06	Strongly Agree
When I feel lonely, I console myself by eating.	3.54	1.14	Strong Agree	3.52	1.04	Strongly Agree
For me, food serves as an emotional consolation.	3.72	1.02	Strong Agree	3.64	0.94	Strongly Agree
Food that I eat makes me feel good.	3.78	0.95	Strong Agree	3.72	0.91	Strongly Agree
I have more cravings for sweets when I am depressed.	2.65	1.22	Agree	2.90	1.10	Agree
I eat more when I have nothing to do.	3.04	1.27	Agree	3.17	1.00	Agree
I often consume foods that keep me awake and alert (such as coffee, coke, energy drinks).	3.18	1.05	Agree	3.19	1.03	Agree
I often consume foods that helps me relax (e.g., teas, red wine).	2.74	1.21	Agree	2.97	1.07	Agree
I am mindful of the food I eat because it influences my weight.	3.53	1.15	Strong Agree	3.41	1.03	Strongly Agree
Overall Mean	3.32	1.12	Strong Agree	3.35	1.02	Strongly Agree

Legend: 1.00–2.15 (Strongly Disagree), 2.16–2.45 (Disagree), 2.46–2.50 (Neutral), 2.51–3.26 (Agree), 3.27–5.00 (Strongly Agree)

Table 24 shows that both male and female respondents in Claveria, Misamis Oriental, exhibit strong economic availability motivations when it comes to food choices. Males reported a slightly higher overall mean of 3.94, compared to 3.92 for females, indicating a slight preference among males for making food choices based on economic factors such as price and convenience. Both genders value low-priced food (with means of 4.13 for males and 4.11 for females), and both tend to purchase food that is on sale or easy to prepare. However, both males and females show a notable preference for fresh vegetables over frozen ones, with males scoring 4.38 and females scoring 4.22. Overall, the results suggest that economic factors such as price, convenience, and ease of preparation play a significant

role in food choices for both genders, with a small but noticeable difference in the responses between males and females.

Table 24
Economic availability motivation for food choices related to alternative staples among households in Claveria, Misamis Oriental

ECONOMIC AVAILABILITY MOTIVATIONS	MALE			FEMALE		
	Mean	SD	Interpretation	Mean	SD	Interpretation
The main reason for choosing a food is its low price.	4.13	0.97	Strong Agree	4.11	0.87	Strongly Agree
I usually buy food that is on sale.	3.64	1.07	Strong Agree	3.69	0.87	Strongly Agree
I choose the food I consume because it is convenient to purchase.	3.79	0.86	Strong Agree	3.92	0.66	Strongly Agree
I usually buy food that is easy to prepare.	3.76	0.89	Strong Agree	3.66	0.93	Strongly Agree
I buy fresh vegetables to cook myself more often than frozen.	4.38	0.74	Strong Agree	4.22	0.93	Strongly Agree
Overall Mean	3.94	0.90	Strong Agree	3.92	0.85	Strongly Agree

Legend: 1.00–2.15 (Strongly Disagree), 2.16–2.45 (Disagree), 2.46–2.50 (Neutral), 2.51–3.26 (Agree), 3.27–5.00 (Strongly Agree)

The highest-rated item for both males and females is "I buy fresh vegetables to cook myself more often than frozen." Males rated this item with a mean score of 4.38 (SD = 0.74), categorized as "Strongly Agree," while females rated it with a mean score of 4.22 (SD = 0.93), also categorized as "Strongly Agree." Although both genders strongly agree with this statement, males show a slightly higher level of agreement, indicating that they place slightly more importance on the price when choosing food compared to females. This observation aligns with broader patterns of gendered behavior in nutritional attitudes and choices, where men and women often exhibit divergent priorities and considerations when it comes to food-related decisions (Grzymisławska et al., 2020).

For the lowest-rated item, "I usually buy food that is on sale," males rated it with a mean score of 3.64 (SD = 1.07), categorized as "Strongly Agree," whereas females rated item "I usually buy food that is easy to prepare" with a mean score of 3.66 (SD = 0.93), also categorized as "Strongly Agree." The subtle divergence in preference for convenience foods may reflect the enduring influence of traditional gender roles, wherein men have historically been less involved in meal preparation and may, therefore, prioritize speed and ease of preparation over nutritional considerations or culinary complexity (Mohan et al., 2023).

Table 25 indicates that both male and female respondents in Claveria, Misamis Oriental, are influenced by social and cultural factors in their food choices, with females showing a slightly stronger inclination towards these motivations. The overall mean for females is 3.51, while for males, it is 3.45, suggesting a marginal difference in the social and cultural factors influencing food choices. Both genders value meals as a time of fellowship and pleasure, with similar mean scores (4.28 for males and 4.30 for females). However, males reported a higher tendency to eat more than usual when they have company, with a mean of 4.38, compared to 4.09 for females.

When it comes to food preferences related to childhood, females (3.62) place slightly more importance on food similar to what they ate during childhood compared to males (3.50). Furthermore, both males and females enjoy trying new foods, with females reporting a slightly lower mean (3.61) than males (3.72). Overall, the results suggest that social and cultural motivations play an important role in food choices for both genders, with females showing a slightly stronger inclination to follow social norms and cultural practices.

Table 25
Social and cultural motivation for food choices related to alternative staples among households in Claveria, Misamis Oriental

SOCIAL AND CULTURAL MOTIVATIONS	MALE			FEMALE		
	Mean	SD	Interpretation	Mean	SD	Interpretation
Meals are a time of fellowship and pleasure.	4.28	0.81	Strong Agree	4.30	0.69	Strongly Agree
I eat more than usual when I have company.	4.38	0.72	Strong Agree	4.09	0.90	Strongly Agree
It is important to me that the food I eat is similar to the food I ate when I was a child.	3.50	1.14	Strong Agree	3.62	1.02	Strongly Agree
I eat certain foods because other people (my colleagues, friends, family) also eat it.	3.36	1.06	Strong Agree	3.44	1.02	Strongly Agree
I prefer to eat alone.	2.16	1.22	Disagree	2.45	1.26	Disagree
I like to try new foods to which I am not accustomed.	3.72	0.96	Strong Agree	3.61	0.93	Strongly Agree
I eat certain foods because I am expected to eat them.	3.51	0.95	Strong Agree	3.67	0.75	Strongly Agree
I choose the foods I eat because it fits the season	3.65	1.06	Strong Agree	3.66	0.95	Strongly Agree
I usually eat food that is trendy.	2.51	1.15	Agree	2.71	1.11	Agree
Overall Mean	3.45	1.01	Strong Agree	3.51	0.96	Strongly Agree

Legend: 1.00–2.15 (Strongly Disagree), 2.16–2.45 (Disagree), 2.46–2.50 (Neutral), 2.51–3.26 (Agree), 3.27–5.00 (Strongly Agree)

The highest-rated item for both males and females is "I eat more than usual when I have company." Males rated this item with a mean score of 4.38 (SD = 0.72), categorized as "Strongly Agree," while females rated it with a mean score of 4.09 (SD = 0.90), also categorized as "Strongly Agree." Males show a higher level of agreement, indicating that they are more likely to eat more when in the company of others compared to females. Examining the specific differences between men and women reveals statistically significant variations in food preferences, ethical considerations regarding food production, nutritional perspectives, and attitudes toward dietary modifications. Furthermore, differences are seen in body image, food preparation, and general nutritional choices (Hopwood et al., 2023).

For the lowest-rated item, "I prefer to eat alone," males rated it with a mean score of 2.16 (SD = 1.22), categorized as "Disagree," while females rated it with a mean score of 2.45 (SD = 1.26), also categorized as "Disagree." This suggests that both genders generally prefer not to eat alone, but males show a stronger disagreement with eating alone compared to females. Men tend to express a greater aversion to eating alone compared to women, highlighting a potential disparity in the psychological and social significance attributed to shared mealtimes. This observation aligns with broader patterns of gendered eating behaviors, which are shaped by a complex interplay of biological, cultural, and gender-based factors (Jönsson et al., 2021).

Table 26 indicates that both male and female respondents are significantly influenced by environmental and political factors in their food choices, with males showing slightly higher motivation overall. The overall mean for males is 4.27, compared to 4.14 for females, suggesting that males place a marginally higher emphasis on environmental and political considerations when making food choices. Both genders prioritize food that is prepared or packed in an environmentally friendly way, with males scoring 4.34 and females 4.17, indicating a slightly stronger concern among males. Both genders show a strong preference for foods that comply with minimal packaging policies, with similar mean scores of 4.21 for males and 4.19 for females. Males also reported slightly higher motivation to respect animal rights in food production (4.31) compared to females (4.10). However, both genders show significant concern for human rights in food production, with males scoring 4.07 and females 3.91. The data

suggest that while both genders are highly motivated by environmental and political factors, males exhibit a slightly stronger inclination to make food choices based on these considerations, with a higher overall measure than females.

The highest-rated item for both males and females is "When I cook, I have in mind the quantities to avoid food waste." Males rated this item with a mean score of 4.34 (SD = 0.74), categorized as "Strongly Agree," while females rated it with a mean score of 4.30 (SD = 0.66), also categorized as "Strongly Agree." Males show a slightly higher level of agreement, indicating a slightly stronger concern for avoiding food waste during cooking compared to females. Such divergence in attitudes may stem from a complex interplay of factors, encompassing variations in nutritional behavior, consumption patterns, and the underlying motivations driving food-related decisions (Clement et al., 2023).

Table 26
Environment and political motivation for food choices related to alternative staples among households in Claveria, Misamis Oriental

ENVIRONMENT AND POLITICAL MOTIVATIONS	MALE			FEMALE		
	Mean	SD	Interpretation	Mean	SD	Interpretation
It is important to me that the food I eat is prepared/ packed in an environmentally friendly way.	4.34	0.64	Strong Agree	4.17	0.73	Strongly Agree
I prefer to buy foods that comply with policies of minimal usage of packaging.	4.21	0.73	Strong Agree	4.19	0.65	Strongly Agree
When I cook, I have in mind the quantities to avoid food waste.	4.34	0.74	Strong Agree	4.30	0.66	Strongly Agree
I prefer to eat food that has been produced in a way that animals' rights have been respected.	4.31	0.49	Strong Agree	4.10	0.58	Strongly Agree
I choose foods that have been produced in countries where human rights are not violated.	4.07	0.76	Strong Agree	3.91	0.73	Strongly Agree
It is important to me that the food I eat comes from my own country.	4.33	0.73	Strong Agree	4.16	0.63	Strongly Agree
Overall Mean	4.27	0.68	Strong Agree	4.14	0.66	Strongly Agree

Legend: 1.00–2.15 (Strongly Disagree), 2.16–2.45 (Disagree), 2.46–2.50 (Neutral), 2.51–3.26 (Agree), 3.27–5.00 (Strongly Agree)

For the lowest-rated item, "I choose foods that have been produced in countries where human rights are not violated," males rated it with a mean score of 4.07 (SD = 0.76), categorized as "Strongly Agree," while females rated it with a mean score of 3.91 (SD = 0.73), also categorized as "Strongly Agree." This suggests that both genders are concerned about the human rights conditions where food is produced, but males have a slightly stronger agreement with this factor compared to females. Men and women exhibit statistically significant differences in various domains, including perspectives on food and health, ethical considerations in food production and selection, nutritional attitudes and choices, dietary modifications, engagement in food-related tasks, and perceptions of body image (Beardsworth et al., 2002).

Table 27 indicates that both male and female respondents in Claveria, Misamis Oriental, are influenced by market and commercial factors when making food choices, with females demonstrating slightly stronger motivations in this regard. The overall mean for females is 3.29, compared to 3.13 for males, suggesting that females are more influenced by market-related factors such as advertising and product presentation. Female respondents are more affected by marketing campaigns and advertisements, as reflected in higher mean scores for items like "Food advertising campaigns increase my desire to eat certain foods" (3.01 for females versus 2.71 for males) and "I eat what I eat, because I recognize it

from advertisements" (2.86 for females versus 2.66 for males). Additionally, females reported a higher tendency to buy food spontaneously if it appeals to them, with a mean of 3.10, compared to 2.90 for males. However, both genders showed a preference for reading food labels over trusting advertising campaigns, with mean scores of 3.87 for males and 3.85 for females. Overall, the data suggest that while both genders are influenced by market and commercial factors, females exhibit a slightly stronger inclination towards these factors, especially in terms of advertising and impulse buying.

The highest-rated item for both males and females is "Brands are important to me when making food choices." Males rated this item with a mean score of 3.87 (SD = 0.98), categorized as "Strongly Agree," while females rated it with a mean score of 3.67 (SD = 1.10), also categorized as "Strongly Agree." Although both genders strongly agree with this statement, females show a slightly higher level of agreement, indicating that brands play a slightly more important role for females when making food choices compared to males. This subtle divergence suggests that brands may hold a slightly more prominent position in the cognitive and behavioral processes of females when navigating the complex landscape of food selection (Egele & Stark, 2023).

For the lowest-rated item, "When I buy food in the market, I am not affected by the marketing campaigns happening in the shop," males rated it with a mean score of 2.66 (SD = 1.13), categorized as "Agree," whereas females rated it with a mean score of 3.34 (SD = 0.96), categorized as "Strongly Agree."

Table 27
Market and commercial motivations for food choices related to alternative staples among households in Claveria, Misamis Oriental

MARKET AND COMMERCIAL MOTIVATIONS	MALE			FEMALE		
	Mean	SD	Interpretation	Mean	SD	Interpretation
When I buy food in the market, I am not affected by the marketing campaigns happening in the shop.	2.66	1.13	Agree	3.34	0.96	Strongly Agree
I eat what I eat, because I recognize it from advertisements or have seen it on TV or other online platforms.	2.97	1.22	Agree	2.86	1.00	Strongly Agree
Food advertising campaigns increase my desire to eat certain foods.	2.71	1.09	Agree	3.01	0.98	Strongly Agree
When I go shopping, I prefer to read food labels instead of believing in advertising campaigns.	3.65	1.09	Strong Agree	3.85	0.95	Strongly Agree
I usually buy food spontaneously if it appeals to me [e.g., situated at eye level, appealing colors, pleasant packaging]	2.90	1.13	Agree	3.10	0.97	Disagree
Brands are important to me when making food choices.	3.87	0.98	Strong Agree	3.67	1.10	Strongly Agree
I try to schedule my food shopping when I know there are promotions or discounts.	3.16	1.17	Agree	3.17	1.06	Strongly Agree
Overall Mean	3.13	1.12	Agree	3.29	1.15	Strongly Agree

Legend: 1.00–2.15 (Strongly Disagree), 2.16–2.45 (Disagree), 2.46–2.50 (Neutral), 2.51–3.26 (Agree), 3.27–5.00 (Strongly Agree)

Results suggest that females are less influenced by marketing campaigns in the shop compared to males, reflecting a greater resistance to marketing strategies among females. This divergence in responsiveness may stem from fundamental differences in cognitive processing styles, where females, on average, tend to engage in more holistic and detail-oriented information processing, potentially enabling them to critically evaluate marketing stimuli with greater scrutiny (Spasova & Taneva, 2021).

Table 28 summarizes the results of food choices related to alternative staples among households in Claveria, Misamis Oriental, comparing male and female respondents. The table presents mean scores and standard deviations (SD) for each motivation category, along with corresponding interpretations based on the scale provided. Both male and female respondents have similarly high levels of agreement across all motivations, as indicated by the "Strongly Agree" interpretation for most categories.

In terms of healthy motivations, both male (3.91) and female (4.01) respondents show a strong agreement, with females demonstrating a slightly higher mean. For emotional motivations, the scores are very similar, with males at 3.32 and females at 3.35. Similarly, both male (3.94) and female (3.92) respondents strongly agree with economic and availability motivations. The results for social and cultural motivations also reflect strong agreement, with males at 3.45 and females at 3.51. For environmental and political motivations, both groups show strong agreement, but males (4.27) display a slightly higher level of agreement than females (4.14).

Table 28

Summary result of motivations of food choices related to alternative staples among households in Claveria, Misamis Oriental

MOTIVATIONS OF FOOD CHOICES	MALE			FEMALE		
	Mean	SD	Interpretation	Mean	SD	Interpretation
Healthy Motivations	3.91	0.97	Strong Agree	4.01	0.79	Strongly Agree
Emotional Motivations	3.32	1.12	Strong Agree	3.35	1.02	Strongly Agree
Economic and Availability Motivations	3.94	0.90	Strong Agree	3.92	0.85	Strongly Agree
Social and Cultural Motivations	3.45	1.01	Strong Agree	3.51	0.96	Strongly Agree
Environment and Political Motivations	4.27	0.68	Strong Agree	4.14	0.66	Strongly Agree
Market and Commercial Motivations	3.13	1.12	Agree	3.29	1.15	Strongly Agree
Overall Mean	3.67	0.97	Strong Agree	3.70	0.90	Strongly Agree

Legend: 1.00–2.15 (Strongly Disagree), 2.16–2.45 (Disagree), 2.46–2.50 (Neutral), 2.51–3.26 (Agree), 3.27–5.00 (Strongly Agree)

Market and commercial motivations show a slightly different pattern, with males at 3.13 (Agree) and females at 3.29 (Strongly Agree), indicating that females are somewhat more influenced by market-driven factors than males. Finally, the overall measure shows a mean of 3.67 for males and 3.70 for females, both indicating strong agreement. The results suggest that both male and female respondents in Claveria, Misamis Oriental, share similar motivations for food choices, with a strong emphasis on health, emotional well-being, economic factors, social and cultural influences, and environmental and political concerns.

Test of Significant Difference in Consumption Patterns Between Male-Headed and Female-Headed Households

This analysis explores whether there is a significant difference in the consumption patterns between male-headed and female-headed households in Claveria, Misamis Oriental. The study aims to examine variations in food choices, preferences for alternative staples, and purchasing habits based on the gender of the household head. By comparing male-headed and female-headed households, this research seeks to identify any significant differences in factors such as the frequency of food consumption, types of staple foods chosen, and other relevant consumption behaviors. Understanding these differences is crucial for developing targeted interventions to improve food security, nutrition, and overall well-being within the community, while addressing any gender-specific needs in food-related decision-making.

Table 29 presents the results of a t-test to determine if there is a significant difference in the consumption patterns between male-headed and female-headed households. The analysis compares the consumption patterns of the two categories: male-headed households and female-headed households. The mean values for the consumption patterns are 1.93 for male-headed households and 1.92 for female-headed households, which are almost identical.

Table 29
Test of significant difference in consumption pattern between male-headed households and female-headed households in Claveria, Misamis Oriental

GENDER	CONSUMPTION PATTERN				
	Mean	t-value	p-value	Decision on Ho	Remarks
Male Headed Household	1.93	0.286	0.593	Failed to Reject	Not Significant
Female Headed Household	1.92				

Significant if p-value < 0.05

Legend: Ho is rejected if Significant

Ho is failed to reject if Not Significant

The t-value of 0.286 and p-value of 0.593 suggest that the differences between the two groups are not statistically significant, as the p-value is greater than the typical threshold of 0.05. Therefore, the decision on H_0 is to fail to reject the null hypothesis (H_0), indicating that there is no significant difference in consumption patterns based on the gender of the household head. This result implies that gender does not influence food consumption behaviors in Claveria, Misamis Oriental, and the consumption patterns between male-headed and female-headed households are comparable.

The results of the t-test suggest that gender does not have a significant effect on the consumption patterns in this study. Despite the potential for gender-related differences in household food choices, this particular analysis shows no statistically significant variance between male-headed and female-headed households, as evidenced by the p-value of 0.593, which is well above the 0.05 threshold for significance.

The implications of this finding are twofold. First, it suggests that factors other than the gender of the household head may be influencing consumption patterns, such as income, household size, or cultural factors, which were not captured in this analysis. To fully understand the intricacies of household consumption, it's imperative to recognize that expenditure patterns are rarely, if ever, solely determined by a single demographic characteristic. Consumption choices are woven into a complex tapestry of economic circumstances, household composition, and deeply ingrained cultural values that collectively shape budgetary allocations. Income, acting as a primary constraint, dictates the range of goods and services accessible to a household, while household size directly influences the quantity of resources required to meet basic needs, such as food, housing, and clothing (Madudová & Čorejová, 2023).

Test of Significant Relationship Between Gender, Household Headship and Motivation for Food Choices Related to Alternative Staples

This analysis examines whether there is a significant relationship between gender, household headship, and motivation for food choices related to alternative staples in Claveria, Misamis Oriental. The study explores how gender and household headship influence motivations for choosing. By identifying any significant relationships, this research aims to provide insights for developing targeted interventions

to improve food security and nutrition, addressing the unique needs of male-headed and female-headed households.

Healthy Motivations and Household Headship

Table 30 examines the association between household headship (male vs. female) and healthy motivations for food choices, further distinguished by whether the household is located in a GIDA or Non-GIDA area. The distribution of responses reveals comparable trends across male-headed and female-headed households. Most respondents from both male- and female-headed households tend to agree with healthy motivations for food selection, with “Agree” responses ranging from 66% to 74% across GIDA and Non-GIDA classifications.

The coefficient values of 0.021 for GIDA and 0.613 for Non-GIDA households, alongside respective p-values of 0.884 and 0.434, indicate no statistically significant relationship between household headship and healthy motivations for food choices in either geographical classification. Both p-values exceed the standard significance level of 0.05, confirming that gender of the household head does not influence motivations toward healthy eating. The findings suggest that household headship, whether male or female, does not significantly affect the prioritization of healthy food choices among respondents in both GIDA and Non-GIDA settings. The similarity in response patterns indicates that motivations toward healthy eating are consistent regardless of the gender of the household head or the geographic classification of the household.

Table 30
Association between household headship and healthy motivations for food choices among households in Claveria, Misamis Oriental

CATEGORY	MALE		FEMALE	
	GIDA	Non-GIDA	GIDA	Non-GIDA
Strongly Disagree	0	1	0	0
Disagree	1	1	0	0
Neither Agree nor Disagree	8	7	4	7
Agree	34	33	38	36
Strongly Agree	7	8	8	7
Total	50	50	50	50
Coefficient	0.021		0.613	
P value	0.884^{ns}		0.434^{ns}	

*Significant at $p < 0.05$; **significant at $p < 0.01$

This outcome implies that factors beyond household headship—such as socioeconomic status, education level, cultural norms, or individual awareness—may be more critical determinants of healthy food choice motivations. Public health strategies and nutrition education programs should therefore broaden their focus beyond gender-specific household dynamics to address these wider influences. Cultural norms and traditions can profoundly influence dietary preferences and eating patterns, necessitating culturally sensitive interventions that respect and incorporate these influences (Agurs-Collins et al., 2024).

Emotional Motivations and Household Headship

Table 31 examines the relationship between household headship (male vs. female) and emotional motivations for food choices across GIDA and Non-GIDA classifications. The responses show that both male- and female-headed households largely share similar perspectives on emotional motivations influencing food choices. Notably, a majority of respondents—52% in both genders—express a neutral

stance (“Neither Agree nor Disagree”) toward emotional motivations. The proportions agreeing (33% males, 34% females) and disagreeing (10% each) are also closely matched between the two groups. The coefficient values are 0.019 for GIDA and 3.900 for Non-GIDA households, with corresponding p-values of 0.890 and 0.048. While the p-value of 0.890 (GIDA) indicates no significant association between household headship and emotional motivations, the p-value of 0.048 (non-GIDA) is just below the 0.05 threshold, suggesting a statistically significant relationship in non-GIDA areas.

Table 31

Association between household headship and emotional motivations for food choices among households in Claveria, Misamis Oriental

CATEGORY	MALE		FEMALE	
	GIDA	Non-GIDA	GIDA	Non-GIDA
Strongly Disagree	0	0	0	0
Disagree	5	5	2	8
Neither Agree nor Disagree	26	26	25	27
Agree	16	17	21	13
Strongly Agree	3	2	2	2
Total	50	50	50	50
Coefficient	0.019		3.900	
P value	0.890^{ns}		0.048*	

*Significant at $p < 0.05$; **significant at $p < 0.01$

Overall, the results indicate that household headship does not significantly influence emotional motivations for food choices in GIDA households, as male and female-headed households show nearly identical response distributions. However, in non-GIDA households, the slight statistical significance implies there may be subtle differences worth further investigation.

The findings suggest that emotional motivations—such as seeking comfort or emotional coping through food—are generally consistent across household headship types, especially in geographically isolated and disadvantaged areas. Other factors such as personal experiences, cultural norms, and societal influences likely play more pivotal roles in shaping emotional eating behaviors than the gender of the household head. The complex interplay of personal experiences, cultural norms, and broader societal influences appears to exert a more substantial influence on shaping emotional eating behaviors than the gender of the household head, suggesting that the roots of emotional eating are deeply embedded in individual and collective experiences (Ha & Lim, 2023).

Economic and Availability and Household Headship

Table 32 examines the association between household headship (male vs. female) and economic and availability motivations influencing food choices, categorized further by GIDA and Non-GIDA classifications. The distribution shows that male- and female-headed households respond similarly across all levels of agreement regarding the impact of economic factors on their food selection. A majority of respondents—74% of males and 70% of females—agree that economic and availability considerations play an important role in their food choices. The “Neither Agree nor Disagree” category comprises 13% of males and 16% of females, while disagreement is relatively low, at 12% for males and 11% for females. The coefficient values of 0.034 (GIDA) and 1.284 (non-GIDA), with respective p-values of 0.853 and 0.257, confirm that these differences are not statistically significant.

The findings suggest that household headship does not significantly affect how economic and availability factors influence food choices. Both male- and female-headed households demonstrate similar patterns in recognizing the importance of food affordability and availability. This implies that

economic motivations are a universal determinant in food selection regardless of the gender of the household head. The high levels of agreement across groups emphasize that interventions aimed at improving food accessibility and affordability can be effectively applied across different household types without requiring gender-specific modifications. This is particularly relevant given that households do not always operate as unified entities (Das & Singh, 2020). Instead, they are composed of individuals with potentially conflicting interests and varying degrees of power, which can significantly influence resource allocation (Salifu, 2021). Conventional knowledge suggests that biological sex and cultural gender play a role in nutritional behaviors, with differences observed in food acquisition, preparation, and consumption (Grzymisławska et al., 2020).

Table 32

Association between household headship, economic and availability motivations for food choices among households in Claveria, Misamis Oriental

CATEGORY	MALE		FEMALE	
	GIDA	Non-GIDA	GIDA	Non-GIDA
Strongly Disagree	0	0	0	0
Disagree	1	0	0	3
Neither Agree nor Disagree	5	8	8	8
Agree	39	35	36	34
Strongly Agree	5	7	6	5
Total	50	50	50	50
Coefficient	0.034		1.284	
P value	0.853ns		0.257ns	

*Significant at $p < 0.05$; **significant at $p < 0.01$

Social and Cultural Motivations and Household Headship

Table 33 presents the association between household headship (male vs. female) and social and cultural motivations influencing food choices, categorized by GIDA and Non-GIDA areas. The distribution of responses is generally similar for both male- and female-headed households. Most respondents fall under the “Neither Agree nor Disagree” category, with 54% of males and 44% of females taking a neutral stance on social and cultural motivations. A considerable proportion of respondents—45% of males and 49% of females—express agreement with social and cultural motivations affecting their food choices. The coefficient values are 0.000 for GIDA and 0.231 for Non-GIDA households, with corresponding p-values of 1.000 and 0.631, both well above the 0.05 threshold. These results indicate no statistically significant relationship between household headship and social and cultural motivations for food choices.

Table 33

Association between household headship and social and cultural motivations for food choices among households in Claveria, Misamis Oriental

CATEGORY	MALE		FEMALE	
	GIDA	Non-GIDA	GIDA	Non-GIDA
Strongly Disagree	0	0	0	0
Disagree	0	1	1	1
Neither Agree nor Disagree	28	26	24	20
Agree	22	23	22	27
Strongly Agree	0	0	3	2
Total	50	50	50	50
Coefficient	0.000		0.231	
P value	1.000ns		0.631ns	

*Significant at $p < 0.05$; **significant at $p < 0.01$

The findings suggest that household headship does not significantly influence social and cultural motivations related to food choices. Both male- and female-headed households exhibit comparable patterns of agreement and neutrality toward the role of family traditions, cultural practices, and communal eating in shaping food preferences. This implies that social and cultural factors are widely shared motivations for food selection, regardless of the gender of the household head. While females show slightly higher agreement rates, the overall lack of significant difference underscores the universal nature of these motivations. The lack of pronounced gender differences does not negate the existence of nuanced variations in food preferences and eating behaviors but rather highlights the unifying power of shared cultural values in dictating acceptable and desirable food choices (Grzymisławska et al., 2020).

Environment and Political Motivations and Household Headship

Table 34 presents the association between household headship (male vs. female) and environment and political motivations for food choices, segmented by GIDA and Non-GIDA classifications. The responses indicate that both male- and female-headed households predominantly agree with environmental and political motivations. For male-headed households, 56% in GIDA and 49% in Non-GIDA areas agree or strongly agree with these motivations. Similarly, female-headed households show 48% in GIDA and 48% in Non-GIDA, agreeing or strongly agreeing. The coefficient values (1.917 for GIDA and 0.040 for Non-GIDA) and p-values (1.166 for GIDA and 0.841 for Non-GIDA) are well above the 0.05 threshold, indicating no statistically significant association between household headship and environment and political motivations for food choices.

Table 34

Association between household headship, and environmental and political motivations for food choices among households in Claveria, Misamis Oriental

CATEGORY	MALE		FEMALE	
	GIDA	Non-GIDA	GIDA	Non-GIDA
Strongly Disagree	0	0	0	0
Disagree	0	0	0	0
Neither Agree nor Disagree	0	1	2	2
Agree	28	33	35	36
Strongly Agree	22	16	13	12
Total	50	50	50	50
Coefficient	1.917		0.040	
P value	1.166ns		0.841ns	

*Significant at $p < 0.05$; **significant at $p < 0.01$

The results suggest that household headship—whether male or female—does not significantly influence environmental and political motivations in food choices. Respondents across both household types and geographic classifications display similar levels of agreement regarding the importance of sustainability, ethical considerations, and political factors in food selection. This indicates that environmental and political motivations are widely shared values irrespective of household leadership gender or location, implying that these considerations have become common factors in food choice behavior. The universality of these motivations suggests a profound shift in food choice behavior, indicating that concerns about ecological sustainability and sociopolitical implications are no longer niche considerations but rather mainstream factors that shape consumer preferences across diverse populations (Hungara & Nobre, 2022).

Market and Commercial Motivations and Household Headship

Table 35 presents the association between household headship (male vs. female) and market and commercial motivations for food choices, further classified by GIDA and Non-GIDA designations. The data indicate that a majority of respondents in both male- and female-headed households adopt a neutral stance (“Neither Agree nor Disagree”) toward the influence of market and commercial factors on their food choices, with percentages ranging from 26% to 30%. Agreement levels (“Agree” and “Strongly Agree”) are relatively low, with males showing 9% to 17% and females 16% to 17% across the classifications.

The coefficient values are 3.334 for GIDA and 0.754 for Non-GIDA, with p-values of 0.068 and 0.385, respectively, both exceeding the 0.05 significance threshold. These results indicate no statistically significant relationship between household headship and market and commercial motivations for food choices. The findings suggest that household headship does not significantly affect how market and commercial factors—such as food advertising, branding, and store promotions—influence food choices. Both male- and female-headed households exhibit similar degrees of indifference or modest agreement with commercial motivations.

Table 35

Association between household headship, market and commercial motivations for food choices among households in Claveria, Misamis Oriental

CATEGORY	MALE		FEMALE	
	GIDA	Non-GIDA	GIDA	Non-GIDA
Strongly Disagree	0	0	1	0
Disagree	12	7	5	3
Neither Agree nor Disagree	29	26	28	30
Agree	8	16	15	15
Strongly Agree	0	0	1	0
Total	50	50	50	50
Coefficient	3.334		0.754	
P value	1.166ns		0.841ns	

*Significant at $p < 0.05$; **significant at $p < 0.01$

The high proportion of neutral responses suggests that other determinants—such as food availability, price, and personal preference—may play a more central role in influencing food choices than market-driven factors. For marketers and policymakers, this implies that commercial strategies impact consumers broadly, but gender of the household head does not significantly differentiate these influences. The intricate decision-making processes surrounding food consumption necessitate a multidisciplinary approach to fully comprehend the diverse and interacting elements at play (Chen & Antonelli, 2020). Specifically, economic factors play a crucial role in influencing consumer behavior and subsequent food consumption decisions, although their full impact remains underexplored in scientific literature (Martinho et al., 2021).

Examining Food Choice Motivations Across Male-Headed and Female-Headed Households

Table 36 presents the association between household headship (male vs. female) and overall motivations for food choices, classified by GIDA and Non-GIDA areas. The distribution of responses reveals similar patterns between male- and female-headed households, with the majority of respondents either agreeing or neither agreeing nor disagreeing with food choice motivations.

Specifically, “Neither Agree nor Disagree” responses range from 12% to 22% across groups, while “Agree” responses vary between 27% and 36%. Very few respondents selected “Strongly Agree,” and no respondents chose “Disagree” or “Strongly Disagree.”

Table 36
Association between household headship and overall motivations for food choices among households in Claveria, Misamis Oriental

CATEGORY	MALE		FEMALE	
	GIDA	Non-GIDA	GIDA	Non-GIDA
Strongly Disagree	0	0	0	0
Disagree	0	0	0	0
Neither Agree nor Disagree	21	22	12	16
Agree	29	27	36	33
Strongly Agree	0	1	2	1
Total	50	50	50	50
Coefficient	0.000		1.000	
P value	1.068ns		0.317ns	

*Significant at $p < 0.05$; **significant at $p < 0.01$

The coefficient values are 0.000 for GIDA and 1.000 for Non-GIDA, with corresponding p-values of 1.000 and 0.317, respectively, both above the 0.05 threshold. These results indicate no statistically significant association between household headship and general food choice motivations. The findings suggest that the gender of the household head does not significantly influence general motivations behind food choices. Both male- and female-headed households exhibit comparable attitudes toward factors motivating their food selection.

This implies that motivations driving food choices are broadly similar across household types, regardless of headship gender or geographical classification. For nutrition programs and policy development, this highlights the importance of addressing common determinants of food choices that transcend household headship dynamics. Acknowledging the multifaceted nature of food choice, which involves a complex interplay of food-related attributes, individual characteristics, and societal influences, is paramount (Chen & Antonelli, 2020). These determinants encompass a broad spectrum, including food-intrinsic qualities, external factors related to the food environment, personal states, cognitive processes, and sociocultural contexts (Chen & Antonelli, 2020).

CONCLUSION

Gender and household headship had minimal influence on the food choice motivations and consumption patterns of alternative staple foods in Claveria, Misamis Oriental. Although there were slight variations in mean scores across different motivational domains—such as health, emotional, economic, social, and political factors—these differences were not statistically significant in most cases. Both male and female respondents, regardless of household headship, demonstrated similar priorities, particularly in health-related and economic motivations. However, significant differences emerged in specific areas such as environmental and political motivations, where female-headed households showed a stronger inclination, and in overall food motivation, where females also scored higher. Despite these exceptions, the general trend suggests that food-related decisions were broadly similar across gender and household headship categories.

Results partially support the Theory of Planned Behavior, which posits that behavior is shaped by attitudes, subjective norms, and perceived behavioral control. It confirms that both male- and female-

headed households hold similar attitudes and norms toward food health, economic constraints, and emotional regulation, aligning with the TPB's assumption that behavioral intention is consistent when external variables are controlled. However, significant differences in environmental and political motivations suggest that subjective norms and value-based considerations—especially among female-headed households—may shape food choice behaviors more distinctly in certain contexts. This nuanced outcome indicates that while TPB remains a useful framework, it must consider how gender roles and socio-cultural dynamics intersect with individual attitudes and perceived control in food-related behaviors. Thus, the theory is confirmed in its core structure but must be contextually adapted to reflect gender-influenced motivational differences in certain domains.

Recommendations

Local communities are encouraged to facilitate shared learning through cooking demonstrations and food literacy campaigns that engage both male- and female-headed households. The agricultural and food industries should diversify crop offerings and promote alternative staples that prioritize health and affordability. Government and policymakers are urged to implement inclusive food policies that enhance accessibility and address gender-specific motivations, particularly regarding sustainability and food security. Health professionals can support this by developing educational materials and outreach programs highlighting the health benefits of alternative staples. Environmental advocates may frame these staples as eco-friendly choices, especially targeting female-headed households with strong environmental concerns. Researchers are encouraged to examine other socio-cultural factors, such as income or traditions, that influence rural food choices. NGOs and development organizations should adopt gender-sensitive approaches to food security programs and promote shared decision-making in households. Food retailers can improve the visibility and marketing of alternative staples by appealing to health and environmental values. Lastly, educational institutions may integrate food education into curricula to instill healthy, sustainable eating habits among the youth, fostering long-term positive change.

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