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## SOCIOECONOMIC DETERMINANTS OF WOMEN'S EMPOWERMENT: A CASE OF FARM HOUSEHOLDS IN ABEOKUTA, OGUN STATE

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### Abstract

This study examines the socioeconomic determinants of women's empowerment or bargaining power among married couples living in farm households in Nigeria. A multistage random sampling technique is employed to collect cross-sectional data from 320 farm households aged between 15 to 50 years. Women's empowerment or bargaining power is measured using 18 questions, and a Tobit regression model is used to analyze all the variables employed. According to the findings, husbands have five more years of formal education than wives and literacy rates are higher for men (62%) than for women (30%). This difference leads to more decision-making power for men. The result shows that there is a visible gender disparity in the worth and value of assets brought into the marriage, with the men bringing around 34% while that of the women is around 3% making men the main decision-makers and women less empowered. As a policy recommendation, women's status in society should be enhanced through investment in education and well-being. Additionally, policies and programs aimed at leveraging the bargaining power of the woman in her attempts to make decisions in the household and increasing her empowerment should be formulated and implemented by policymakers.

**Keywords:** AWEAI, Decision-Making, Tobit Regression, Women's Empowerment

**JEL Classifications:** B55, Q18, Q19

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### 1. Introduction

In the last two decades, women's empowerment has become a popular research agenda. Among determinants of economic development, women's empowerment is acknowledged as one of the important characteristics of human development.

Taylor and Perezniето (2014) referred to women's empowerment as a process of achieving women's equal access to economic resources and being able to use this to exert increased control over their livelihoods. Harris and Veinot (2004, p. 3) defined empowerment as "the ability of individuals to gain control socially, politically, economically, and psychologically through access to information, knowledge and skills, decision-making, individual self-efficacy, community participation, and perceived control". O'Neil et al. (2014) also viewed women's empowerment as a process of individual and social changes through which women gain power and control over their lives.

Nigeria and other developing countries viewed women's empowerment as a multidimensional concept that is determined by various socioeconomic factors such as religion and cultural norms. Women are made to play a lesser role as compared to their male foils. Saigol (2011) revealed that a wide disparity exists between men and women in virtually all aspects of life, including education, employment, political participation, decision-making, and ownership of the means of production and resources. There exists an enormous inequality and unfairness in the ownership and control of economic resources between men and women.

The Millennium Development Goals (MDGs) seek to achieve gender equality and women's empowerment by reducing child mortality, attaining universal primary education, taming maternal health, and reducing poverty (Ashraf et al. 2019). However, Nigeria is lagging behind and the role of women has been undermined. For example, Sklar (2015) revealed that the use of women's labor force for the economic development of the country is minimal (women are mostly engaged in low-pay jobs), and the level of women's participation and representation in Nigerian politics is low. It is also a fact that among many societies around the globe, women are considered as the property of others throughout their lives (Badar et al. 2013). Their physical well-being - health, security, and bodily integrity - is often beyond their own control. Women have hardly any power over wealth and incapable of getting better healthcare for themselves.

In Nigeria, there are cultural norms and unbalanced power relations that sometimes deny women a seat at the table when economic decisions are being made. While the country focuses on diversifying from oil and fighting against corruption and insurgency, it appears not to close the gender gap between men and women in terms of their contributions to society. Therefore, this study has been undertaken to contribute to the debate on women's role in family decision-making and their level of control on certain economic issues and to determine the factors that affect women's power and decision-making at a family level.

According to the United Nations Development Program (UNDP, 2009), there exists a multiplier effect on social and economic development when women have access to economic and financial resources. This results in poverty reduction and increases children's welfare. It can further lead to an increase in children's survival, welfare, and educational development. Sen (2000) stated that an increase in women's participation in economic activities through enhancing status and independence would result in a significant benefit for the entire society. Wiklander (2010) also emphasized that a decrease in gender bias in household decision-making could increase income generation and lower mortality rates.

Given the potential benefits of women's empowerment, this study is rooted in cooperative and non-cooperative bargaining models that advocate actual decision-making as opposed to the unitary household model. The cooperative model theorizes that spouses negotiate, agree, and cooperate among themselves to achieve household bargaining outcomes and each spouse has the capability to disagree on a "less-than-desired negotiation outcome" and use a threat - like divorce-threat in a marriage - to achieve better bargaining outcomes (Chen and Woolley, 2001; Konrad and Lommerud, 2000). The non-cooperative model, on the other hand, presumes independent actions from both husband and wife to achieve the maximum level of self-enforcing Nash equilibrium of Pareto efficiency (Lundberg and Pollak, 1996). The major difference between cooperative and non-cooperative models lies in the strength of the stability of the bargaining outcome. While the cooperative model assumes stability in spouses' bargaining power, the non-cooperative model may change as spouses make available more information about their strength and position. Therefore, both models allow this study to focus on women's bargaining power and welfare in family decision-making.

In this context of women's bargaining power, women's assets, financial capacity, and participation in the labor market are considered as the main determinants of women's power in the family decision-making process (Antman, 2014; Bertocchi *et al.* 2014; Doss *et al.* 2014). Other scholars such as Chattopadhyay and Duflo (2004) and Duflo and Udry (2004) also identified age, education, and social and political factors as the determinants of women's authority. The household structure also affects women's decision-making power (Gummerson and Schneider, 2013).

Based on the foregoing, there seem to be a number of individual, family, and communal features that determine women's empowerment. Therefore, this study seeks to investigate the determinants of women's empowerment based on the agricultural households in Abeokuta, Ogun State, Nigeria. The study area is chosen as the Abeokuta, Ogun State, because, despite the high level of education of the people, women are predominantly farmers or engage in low-paid jobs and are less empowered. Additionally, the cultural norms of the people support husband and wife living together, hence, enables the study to compare decision-making power between men and women, as both spouses need to be part of the data.

This paper is structured as follows: Section 1 provides the introduction of the study. Section 2 deals with the methodology, including the preliminary and estimation procedures. Section 3 discusses the results of the study. Finally, the conclusion and policy implications are discussed in Section 4.

## 2. Method of methodology

The study is carried out in the Abeokuta agricultural zone of Ogun state. Abeokuta is in the Southwest region of Nigeria and covers an approximate area of about 40.63 km<sup>2</sup>. It is located between latitudes 70<sup>0</sup>10'N and 70<sup>0</sup>15'N and longitudes 30<sup>0</sup>17'E and 30<sup>0</sup>26'E.

A multistage purposive (random) sampling method from married farm households is employed for the study. The first stage involves a random selection of 4 blocks (Ilewo, Olorunda, Ilugun, and Opeji) from the Abeokuta agricultural zone. In Stage 2, there is a selection of 4 cells from each block that makes a total of 16 cells, and the final stage involves the random selection of 15 farm households in each cell, making a total of 240 farm households.

Data for the study are collected through questionnaire and interview with the rural farmers. The data are based on the socio-economic characteristics such as age, age at marriage, the number of years in marriage, gender, marital status, educational status, and other variables of mother and child that have been used by past empirical studies like Antman (2014), Anderson *et al.* (2017) and Contreras (2020) among others. The survey questionnaire is pretested, and information on farm household characteristics, including demographics and detailed information on farming practices, are included.

In this study, bargaining power or empowerment is determined from the responses received about decision-making. It implies that responses are collected from husbands and wives that live together. Thus, this study excludes households where the wife or husband is absent as in line with Anderson *et al.* (2017). A Likert scale is used ranging from 1 to 10, and respondents are asked to choose the best option that aligns with their views over a given decision. An example is as follows, "On a scale of 1 to 10, how is the decision-making in the family shared between yourself and your spouse?" This mode of asking a question is adopted from Anderson *et al.* (2017) and Mengesha *et al.* (2021) to determine the bargaining power or empowerment. This selection enables the study to compare decision-making power between men and women, as both spouses need to be part of the data. Where husband or wife is absent, only one partner makes decisions. It is important to note that this exclusion does not affect the data collection process, as the nature of the study is to determine women's decision-making power.

To deliver on the commitment to women's empowerment, the Women's Empowerment in Agriculture Index (WEAI) tool was developed in 2012 (Alkire *et al.* 2013). It was initially designed to monitor and evaluate the U.S. agricultural sector policy on the Feed the Future initiative and has been used in many countries. However, there was growing criticism against it, especially on the indices that are used for capturing empowerment (Contreras, 2020). This resulted in the

development of a shorter and modernized version known as A-WEAI. This version is more robust and acceptable as it retains the five domains of empowerment as shown in Table 1.

The A-WEAI is used for estimating the bargaining power of women. It is a measurement of the 5 dimensions of empowerment (5DE) that results in a number ranging between 0 and 1, with the higher values indicating greater empowerment. There are two components of the measurement. Firstly, it mirrors the proportion of women empowered ( $H_e$ ), and secondly, it reveals the ratio of women not yet empowered ( $H_n$ ). In the 5DE formula,  $A_a$  represents the dimensions in which disempowered women have satisfactory achievement. Hence,  $5DE = H_e + H_n(A_a)$ , where  $H_e + H_n = 100\%$  and  $0 < A_a < 100\%$ . Following Alkire methodology, this can be rewritten as  $1 - H_n * A_n$ , where  $A_n = (1 - A_a)$  and it shows the proportion of domains in which disempowered women do not have satisfactory achievements.

**Table 1. Five domains of A-WEAI empowerment**

Indicators	Domain	Weight
Production	Input in productive decisions	1/5
Resources	Ownership of assets	2/15
	Access to and decisions on credit	1/15
Income	Control over use of income	1/5
Leadership	Group membership	1/5
Time	Workload	1/5

This study employs the Tobit regression model using the women empowerment index as the dependent variable to ascertain the household features that describe women's empowerment. This is captured in Equation 1:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_{14} X_{14} + \varepsilon_{it} \tag{1}$$

As contained in Equation 1, the interpretation of each of the variables ( $X_1 - X_{14}$ ), the coefficients ( $\beta_1 - \beta_{14}$ ), and error terms are shown in Table 2.

$$Y_i = A - WEAI \tag{2}$$

The five domains of A-WEAI as contained in Table 1 are employed in estimating the bargaining power of women (see Equation 2).

**Table 2. Socioeconomic characteristics of women empowerment**

Wife-specific characteristics
$X_1$ = Age of women (years)
$X_2$ = Woman's age at marriage (years)
$X_3$ = Education (years)
$X_4$ = Main occupation of women (Farming =1, others =0)
$X_5$ = Membership of social group/association (Yes =1, No =0)
$X_6$ = Value of assets brought into marriage by the women
<b>Spousal differences (husband-wife)</b>
$X_7$ = Education difference between spouse (years)
$X_8$ = Age difference between spouse (years)
<b>Husband-specific characteristics</b>
$X_9$ = Education (years)
$X_{10}$ = Monthly household income of men (N)
<b>Other variables</b>
$X_{11}$ = Household size
$X_{12}$ = Proportion of women's income in household total income (N/Month)
$X_{13}$ = Travel time (Km)
$X_{14}$ = Share of older members
$\beta_0$ = constant term
$\beta_1$ to $\beta_{14}$ = coefficients of estimated parameters
$\mu_i$ = an error term.

### **3. Results and discussion**

The socio-demographic characteristics of the respondents covered in this study include age, level of education, household size, and main occupation. Results, as presented in Table 3, show that the predominant age group for women in the study area is less than 30 years (19-30 years) which comprises 46.67% of female respondents, and for men, it is 31-50 years, which comprises 60% of male respondents. These results are within the productive age group that lies between 30 and 50 years, although with men it is slightly above the productive age group. On average, the husband is eight years older than the wife. This is to be expected with early marriage being common in rural Nigeria. Table 3 shows further that 52.5% of men had attained primary education and 54.58% of women had no formal education. Only 26.67% of women had primary education. On average, the husbands have five more years of formal education than their wives. Findings show that literacy rates are higher for men (62%) than for women (30%), and thus, it leads to more decision-making power for men. The household size in this study means the total number of individuals in each household. It denotes the availability of the labor force for food production, and, at the same time, it provides information on the number of individuals to be fed in the household. The descriptive statistical analysis results show that the smallest household has two members whereas the largest has 12 members. The average size is 5 to 6 members per household. As revealed in Table 3, female land ownership (10%) is uncommon, and the share of women in the distribution of land is extremely low despite being the main contributor to the household income. In addition, men have more access to credits (34.17%) than women (15%), despite women having better repayment rates.

The differences in the composition of the assets brought into the marriage by each spouse are apparent. These assets include assets already owned by the groom and the bride before marriage and assets they received upon marriage from parents in the form of inheritance or from other sources. Assets included are the land, houses, vehicles, appliances, jewelry, furniture, and utensils. There is a visible gender disparity in the worth and value of assets brought into the marriage. On average, the value and worth of assets brought in by men at the time of marriage are more than five times higher than that of the bride. The average value and worth of assets brought in by the men (groom) are ₦82,500.00, whereas it is ₦14,200.00 for the bride (wife). The study reveals that land is the leading asset brought into a marriage because of inheritance patterns in Nigeria, with parents mostly giving land to their sons. Based on this, the majority value and worth of assets brought into the marriage by the groom is around 34% while it is 3% for the bride. This finding is in line with Fafchamps and Quisumbing (2002), who revealed that the inheritance assets are usually given predominantly to the son in Nigeria. Due to this imbalance, inequalities between men and women have widened, and farm household bargaining power remains concentrated among men. This pattern results in men becoming the main decision-makers.

**Table 3. Socioeconomic characteristics of farm households by gender**

Characteristics	Frequency (Women)	Percent (Women)	Frequency (Men)	Percent (Men)	Mean
<b>Age</b>					
Less than 31	112	46.67	36	15.00	
31-50	84	35.00	144	60.00	
51-70	37	15.42	49	20.42	
71 and above	07	2.92	11	4.58	
Mean age	34		52		
Age difference (years)					7.73
<b>Education</b>					
No formal education	131	54.58	67	27.92	
Primary	64	26.67	126	52.50	
Secondary	35	14.58	30	12.50	
Tertiary	10	4.17	17	7.08	
Education difference (years)					4.65
<b>Household size</b>					
2-5 persons	83	34.6		34.6	
6 – 9 persons	132	55.2		55.2	
10 and above	25	10.2		10.2	
Mean Household size					5
<b>Years of farming Experience</b>					
1-5	88	36.67	19	7.92	
6-10	57	23.75	21	8.75	
11-15	43	17.92	66	27.50	
16 and above	52	21.67	134	55.83	
Mean	6	3.33	12	5.00	
<b>Land ownership</b>					
Owns land	24	10.00	86	35.83	
Access to credit	36	15.00	82	34.17	
<b>Monthly Income</b>					
Less than ₦50,000	171	71.25	93	38.75	
₦51,000–₦100,000	56	23.33	124	51.67	
₦101,000 and above	13	5.42	23	9.58	
Mean	₦38,200		₦58,000		₦42,000
Value of asset brought into marriage (₦)	₦24,200.00		₦82,500.00		
<b>Decision making</b>					
Main contributor of household income	65	27.00	176	73.50	
Decides for expenditures on education	189	79.00	115	48.00	
Decides for expenditures on health	130	54.00	107	44.50	
Decides for expenditures on food	170	71.00	79	32.85	
Decides for expenditures on clothing	136	57.00	96	40.00	
Decides for expenditures on shelter	53	22.00	211	88.00	
Decides for expenditures on land use	58	24.00	173	72.00	
Decides for expenditures on crop sales	74	31.00	163	68.00	

**Source:** Authors' own calculation based on the collected data

### 3.1. Distribution of respondents according to the level of empowerment

The results of the farmer's achievement in the five domains of empowerment are presented in Table 4. It shows that the male farmers are more empowered than female farmers in most of the indicators except group achievement, with women having an average empowerment score of 0.78. This result is consistent with Quisumbing and Pandolfelli (2010), who reported that men are generally advantaged in general household decision-making in terms of asset ownership due to gender norms in Africa. This means the norms and cultural values in many African countries automatically disadvantage the women and bequeath the decision-making power to the men.

As further shown in Table 4, about 26% of women and 59% of men are empowered and may have strong bargaining power. Given the number of women that are disempowered, their mean score is 0.57 while that of men is 0.68. This means that the women that achieved empowerment are in an average of 57% while men are in the average of 68%. These percentages indicate that women are less empowered and may not have strong bargaining power in household decision-making. Further, the average empowerment gap between men and women is 46%. This shows that there is a gender disparity between men and women, and hence, this situation constitutes an obstacle to women's empowerment and decision-making.

**Table 4. Distribution of respondents according to the level of empowerment**

Indicators	Female (Mean)	Male (Mean)
Group achievement	0.78	0.36
Work achievement	0.70	0.88
Achievement in production decision	0.42	0.65
Achievement in income decision	0.33	0.72
Achievement in asset	0.42	0.69
Empowerment score (5DE)	0.32	0.63
Empowered	0.22	0.54
Disempowerment score (1-5DE)	0.68	0.37
% achieving empowerment	26%	59%
% not achieving empowerment	74%	41%
Mean adequacy score for not yet empowered	0.57	0.68
Mean disempowerment score (1-adequacy) for not yet empowered	0.46	0.61
Gender Parity Index (GPI)	0.54	
% achieving gender parity	24%	
% not achieving gender parity	76%	
Average empowerment gap	0.46	
A-WEAI score	0.35	

Source: Based on authors' calculation

### 3.2 Pattern of women bargaining power

Table 5 shows that 63.33% of women in the study area have low bargaining power, while 26.25% have moderate bargaining power and 10.42% have high bargaining power when it comes to household decision-making. These results imply that men are more empowered than women in terms of decision-making as the male respondents showed about 63% more indicators (approximately two indicators) than the female respondents who showed about 26.3% in the same household. Therefore, women lack control over important decisions in their households.

**Table 5. Pattern of women bargaining power**

Level of Women Bargaining Power	Frequency	Percent
Low Bargaining Power (decision is taken mainly by the men) (AWEAI= $\leq$ 0.35)	152	63.33
Moderate Bargaining Power (decision is shared) (AWEAI = 0.36- 0.70)	63	26.25
High Bargaining Power (decision is taken mainly by the women) (AWEAI $\geq$ 0.71)	25	10.42
Total	240	100

Source: Based on authors' calculation

### 3.3. Determinants of women's empowerment

The results of the Tobit regression shown in Table 6 reveal that among the specified wife (women)-specific characteristics, all the variables are significant except their main occupation. However, age (5%), age at marriage (5%), education (5%), membership of a social group (1%), and value of assets brought into the marriage (1%) are the significant factors influencing women's bargaining power. Besides, the identified spousal difference variables (education and age) are both significant at 1% and 5%, respectively. Other socioeconomic variables influencing women's bargaining power are household size (5%), travel time to the nearby road (1%), and the presence of older household members (1%).

The age of women is positively related to their bargaining power, which implies that as women get older, women have more bargaining power and control over household decision-making. Moreover, women's role in the family keeps changing with age. One can assume that when a woman's mother-in-law or older female family members die, the woman becomes the head-female of the household and may be able to exercise greater bargaining power.

The women's age at marriage has a significant positive effect on women's bargaining power. This implies that the older the woman is married, the greater empowerment and bargaining power she has in the household decision-making. This finding reveals the importance of policies towards discouraging early child marriage and the importance of supporting the education of a girl child. As stated by Acharya *et al.* (2010), there is a need to create better awareness for women in society to positively enhance their autonomy in household decision-making.

Women's years of schooling have a positive effect on their bargaining power. This result signifies the importance of education for women's empowerment. Noreen and Khalid (2012) revealed the importance of education as a strong determinant for women empowerment and indicated that early marriage and poverty are the main indicators for lack of education. Education can help women to gain confidence, motivation and pave the way to uplift their status and become better citizens in contributing to the growth and development of the country. In this respect, studies like Shahnaz and Kizilbash (2002), Zafar *et al.* (2005), Fatima (2013), and Samari and Pebley (2015) concluded that education is one of the significant determinants of women empowerment.

However, the education gap, which represents the difference in education between husband and wife, is significant at the 5% level. Its negative coefficient value indicates that the greater the man's advantage in education is, the less empowered the woman is and the lower bargaining power in household decision-making woman has. Therefore, as the educational gap between the male and female increases, the woman empowerment decreases. This finding conforms to Meier-zu Selhausen (2016), who revealed that the educational gap between spouses negatively affects women's decision-making power.

The study results further confirm that membership in a group is important to women's empowerment. Women's membership in a group has a significant positive impact on women's empowerment. While trying to bridge the gap between men and women farmers in Nigeria, Ogunlela and Mukhtar (2009) revealed that women farmers join different groups to have a strong voice and to be able to have a strong bargaining power. An example of such a group is the "Women Farmers' Advancement Network" (WOFAN), which has the aim of training and supporting women in the rural areas and increasing their participation in key strategical aspects

of human life such as health, agriculture, literacy, income generation, and early childhood development among others.

Furthermore, the age disparity between men and women has a significant negative impact on bargaining power, which shows that the wider the spousal age difference, the lower the women's bargaining power. This finding is in line with Fafchamps *et al.* (2009), who carried out a similar study in Ethiopia.

Other socioeconomic factors, which influences women's bargaining power are the household size, remoteness captured by travel time to the nearest paved road, and the presence of elderly members of the household. The findings show an inverse relationship between remoteness and women's bargaining power. Thus, the level of woman's bargaining power decreases with an increase in remoteness. Therefore, women in rural areas are likely to be less empowered than their urban counterparts. Women living in an urban area will have more exposure and a wider range of information that may likely allow them to take advantage to acquire means of increasing their bargaining power.

The proportion of the presence of an elderly member in the household is significant at 10% and negatively related to women's empowerment. The presence of elderly members, such as the presence of a father-in-law or mother-in-law, weakens the decision-making power of female wives upon what decision is at stake. This result conforms to Crivello *et al.* (2018) that revealed that older women tend to have more decision-making power in the family.

Given the lag order criteria which are used for the regression analysis, there is no serial correlation (similarity between observations) detected in the model. The result shows that the model is consistent and favorable in analyzing the women's role in family decision-making, their level of control on certain economic issues, and determining the factors that affect women's power and decision-making at the family level.

**Table 6. Determinants of Women's Bargaining Power**

<b>Independent variables</b>	<b>Coefficients</b>	<b>t-ratio</b>
<b>Wife-specific characteristics</b>		
Age of women (years)	0.4512**	2.0102
Woman's age at marriage (years)	0.1925**	2.1142
Education (years of schooling)	0.2204**	2.3121
Main occupation of women (Farming =1, Others =0)	-0.1152	-1.0317
Membership of social group/association (Yes =1, No =0)	0.2468***	4.1279
Value of assets brought into marriage by the women	0.2618***	2.7522
<b>Spousal differences (husband-wife)</b>		
Education difference between spouse (years)	-0.1676***	-3.2162
Age difference between spouse (years)	-0.1036**	-2.4425
<b>Husband-specific characteristics</b>		
Education (years)	-0.1924**	-2.1618
Monthly household income of men (N)	0.3200	1.6614
Age (years)	-0.2414***	2.5322
<b>Other variables</b>		
Household size	0.2123**	2.1734
Proportion of women's income in household total income (N/Month)	0.5688	1.1176
Travel time to the nearest paved road/ remoteness (Km)	-0.0451***	3.0104
Presence of older household members (Yes =1, No =0)	-0.1156*	1.9815
Marriage type (Polygamous =1, Others=0)	0.0237	1.1136
Constant	0.4634	1.5328
Number of observations	240	
Log-likelihood	-2139.31	
Pseudo R-squared	0.0853	

**Note:** \*\*\*, \*\*, and \* represent significance levels at 1%, 5%, and 10%, respectively.

**Source:** Authors' estimation based on the data collected

#### 4. Conclusion and policy recommendations

This study examined the socioeconomic determinants of women empowerment among married couples living in farm households in Nigeria. Using a survey questionnaire that contains information on farm household characteristics, including demographics and detailed information on farming practices, research has focused on married couples that live together. Thus, this study excluded households, where one of the spouses is absent as in line with Anderson *et al.* (2017). The findings revealed that there are significant differences in the bargaining power and decision-making ability between men and women in farming households in the study area. Other factors such as age, education, remoteness, and individual and household characteristics have a significant impact on women's empowerment. It is revealed that there is a gender disparity in the worth and value of assets brought into a marriage, with men bringing around 34% while women bring in 3%. This disparity widens the inequalities between men and women and makes farm household bargaining power or empowerment remain concentrated among men, thereby, making men the main decision-makers.

It is, therefore, recommended that women's right to own property through inheritance from their parents should be enforced. This will increase the worth and value of assets brought into a marriage by women. The government should also formulate more policies (discourage early girl marriage) that empower women economically. Women should also be encouraged to join and form groups that can advocate a strong voice in favor of women's empowerment and their increased participation in household decision-making. Overall, education is important, therefore, the government should support education for girl children. There should be a deliberate attempt to bridge the educational gap between men and women in farm households.

As a suggestion for the future research direction, researchers should scale up this type of study to cover the entire country since this current study is limited to a section of the country, Southwest region, and in particular, Abeokuta, Ogun state. This would allow the issue surrounding women's empowerment to be optimally addressed and give clues about what training, if any, might be given.

#### References

- Acharya, D. R., Bell, J. S., Simkhada, P., Van Teijlingen, E. R., and Regmi, P. R., 2010. Women's autonomy in household decision-making: a demographic study in Nepal. *Reproductive Health*, 7(1), pp. 1-12. <https://doi.org/10.1186/1742-4755-7-15>
- Alkire, S., Meinzen-Dick, R., Peterman, A., Quisumbing, A., Seymour, G., and Vaz, A., 2013. The women's empowerment in agriculture index. *World Development*, 52, pp. 71-91. <https://doi.org/10.1016/j.worlddev.2013.06.007>
- Anderson, C. L., Reynolds, T. W., and Gugerty, M. K., 2017. Husband and wife perspectives on farm household decision-making authority and evidence on intra-household accord in rural Tanzania. *World Development*, 90, pp. 169-183. <https://doi.org/10.1016/j.worlddev.2016.09.005>
- Antman, F. M., 2014. Spousal employment and intra-household bargaining power. *Applied Economics Letters*, 21(8), pp. 560-563. <https://doi.org/10.1080/13504851.2013.875101>
- Ashraf, M., Ullah, L., Shuvro, M. A., and Salma, U., 2019. Transition from millennium development goals (MDGs) to sustainable development goals (SDGs): blueprint of Bangladesh for implementing the sustainable development goals (SDGs) 2030. *Medicine Today*, 31(1), pp. 46-59. <https://doi.org/10.3329/medtoday.v31i1.40323>
- Badar, S., Gull, S., Saeed, M. A., and Hussain, W., 2013. Female educational empowerment and fertility behaviour. *Journal of Rawalpindi Medical College*, 17(2), pp. 291-293.
- Bertocchi, G., Brunetti, M., and Torricelli, C., 2014. Who holds the purse strings within the household? The determinants of intra-family decision-making. *Journal of Economic Behavior & Organization*, 101, pp. 65-86. <https://doi.org/10.1016/j.jebo.2014.02.012>

- Chattopadhyay, R. and Duflo, E., 2004. Women as policy makers: evidence from a randomized policy experiment in India. *Econometrica*, 72(5), pp. 1409-1443. <https://doi.org/10.1111/j.1468-0262.2004.00539.x>
- Chen, Z. and Woolley, F., 2001. A Cournot-Nash model of family decision-making. *The Economic Journal*, 111(474), pp. 722-748. <https://doi.org/10.1111/1468-0297.00657>
- Contreras, S., 2020. *Two essays on the women's empowerment in agriculture: an empirical assessment of the WEIA and a theoretical proposal with relationship to time allocation*. PhD Thesis. Kansas State University. [online] Available at: <<https://krex.k-state.edu/dspace/bitstream/handle/2097/40562/SandraContreras2020.pdf?sequence=1&isAllowed=y>> [Accessed on 1 May 2021].
- Crivello, G., Roest, J., Vennam, U., Singh, R., and Winter, F., 2018. *Marital and fertility decision-making: the lived experiences of adolescents and young married couples in Andhra Pradesh and Telangana, India*. Oxford: Young Lives.
- Doss, C. R., Kim, S. M., Njuki, J., Hillenbrand, E., and Miruka, M., 2014. *Women's individual and joint property ownership: effects on household decision making*. IFPRI Discussion Paper 01347. Washington, DC: International Food Policy Research Institute. <https://doi.org/10.2139/ssrn.2483968>
- Duflo, E. and Udry, C., 2004. *Intrahousehold resource allocation in Cote d'Ivoire: social norms, separate accounts and consumption choices*. Working Paper No. 10498. Cambridge: National Bureau of Economic Research (NBER). <https://doi.org/10.3386/w10498>
- Fafchamps, M. and Quisumbing, A. R., 2002. Control and ownership of assets within rural Ethiopian households. *The Journal of Development Studies*, 38(6), pp. 47-82. <https://doi.org/10.1080/00220380412331322581>
- Fafchamps, M., Kebede, B., and Quisumbing, A. R., 2009. Intrahousehold welfare in rural Ethiopia. *Oxford Bulletin of Economics and Statistics*, 71(4), pp. 567-599. <https://doi.org/10.1111/j.1468-0084.2009.00553.x>
- Fatima, D., 2013. *Education, employment, and women's say in household decision-making in Pakistan*. CREB Working Paper No. 04-14. Lahore: CREB Lahore School of Economics. [online] Available at: <<http://www.creb.org.pk/uploads/Working-Paper-Series-No.04-14-Complete.pdf>> [Accessed on 1 May 2021].
- Gummerson, E. and Schneider, D., 2013. Eat, drink, man, woman: gender, income share and household expenditure in South Africa. *Social Forces*, 91(3), pp. 813-836. <https://doi.org/10.1093/sf/sos173>
- Harris, R. and Veinot, T., 2004. *The empowerment model and using e-health to distribute information*. Working Paper. Vancouver, BC: Action for Health, Simon Fraser University and the Vancouver Coastal Health Research Institute.
- Konrad, K. A. and Lommerud, K. E., 2000. The bargaining family revisited. *Canadian Journal of Economics*, 33(2), pp. 471-487. <https://doi.org/10.1111/0008-4085.00024>
- Lundberg, S. and Pollak, R. A., 1996. Bargaining and distribution in marriage. *Journal of Economic Perspectives*, 10(4), pp. 139-158. <https://doi.org/10.1257/jep.10.4.139>
- Meier-zu Selhausen, F., 2016. What determines women's participation in collective action? Evidence from a Western Ugandan coffee cooperative. *Feminist Economics*, 22(1), pp. 130-157. <https://doi.org/10.1080/13545701.2015.1088960>
- Mengesha, D. K., Merkeb, Y., Worku, E., and Aragaw, H., 2021. Prevalence of malnutrition and associated risk factors among children under five years of age in Amhara Region, Ethiopia: evidence from 2016 Ethiopian Demographic and Health Survey. *Journal of National Science*, 10, E22. <https://doi.org/10.1017/jns.2021.17>
- Noreen, G. and Khalid, H., 2012. Gender empowerment through women's higher education: opportunities and possibilities. *Journal of Research and Reflections in Education*, 6(1), pp. 50-60.
- O'Neil, T., Domingo, P., and Valters, C., 2014. *Progress on women's empowerment: from technical fixes to political action*. Working Papers. London: Overseas Development Institute. [online] Available at: <<https://odi.org/en/publications/progress-on-womens-empowerment-from-technical-fixes-to-political-action>> [Accessed 1 May 2021].

- Ogunlela, Y. I. and Mukhtar, A. A. 2009. Gender issues in agriculture and rural development in Nigeria: the role of women. *Humanity & Social Sciences Journal*, 4(1), pp. 19-30.
- Quisumbing, A. R. and Pandolfelli, L., 2010. Promising approaches to address the needs of poor female farmers: resources, constraints, and interventions. *World Development*, 38(4), pp. 581-592. <https://doi.org/10.1016/j.worlddev.2009.10.006>
- Saigol, R., 2011. *Women's empowerment in Pakistan*. Islamabad: Aurat Publication and Information Services Foundation.
- Samari, G. and Pebley, A., 2015. *Individual and household determinants of women's autonomy: recent evidence from Egypt*. CCPR Working Papers. Los Angeles: University of California.
- Sen, A., 2000. *Social exclusion: Concept, application, and scrutiny*. Social Development Papers No. 1. Manila: Asian Development Bank.
- Shahnaz, L. and Kizilbash, Z., 2002. "Commenting on the causal factors controlling female decision making" a study of female decision making regarding paid employment: Punjab, Pakistan. *Lahore Journal of Economics*, 7, pp. 75-88. <https://doi.org/10.35536/lje.2002.v7.i1.a4>
- Sklar, R. L., 2015. *Nigerian political parties: Power in an emergent African nation*. New Jersey: Princeton University Press.
- Taylor, G. and Perezniето, P., 2014. *Review of evaluation approaches and methods used by interventions on women and girls' economic empowerment*. Research Papers. London: Overseas Development Institute. [online] Available at: <<https://odi.org/en/publications/review-of-evaluation-approaches-and-methods-used-by-interventions-on-women-and-girls-economic-empowerment/>> [Accessed 1 May 2021].
- UNDP, 2009. *World survey on the role of women in development: women's control over economic resources and access to financial resources, including microfinance*. New York: United Nations Publications. [online] available at: <<https://www.un.org/womenwatch/daw/public/WorldSurvey2009.pdf>> [Accessed 1 May 2021].
- Wiklander, J., 2010. *Determinants of women's empowerment in rural India: an intra-household study*. Master's Thesis. Lund University. [online] Available at: <<https://lup.lub.lu.se/student-papers/search/publication/1666646>> [Accessed 1 May 2021].
- Zafar, S., Batool, Z., and S. Bano., 2005. Female participation in decision making process in family matters in district Faisalabad, Pakistan. *Journal of Agriculture and Social Sciences*, 1(3), pp. 285-287.