Couple's Decision-making Power, Women's Labor Market Outcomes and Asset Ownership

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Abstract

This paper explores the causal link between couple's household decision-making power and women's labour market and economic outcomes. Autonomy refers to the condition of independence while decision-making power can be defined as one's ability to make important decisions within the household. Autonomy and decision-making power are used interchangeably in this paper.Using the 2018 Nigeria Demographic and Health Survey and a series of probit, instrumental probit and multinomial logistic regression models, findings suggest that women who have lower autonomy in their households are less likely to be currently employed and even when they are employed, these women have higher odds of working in family businesses, which are typically associated with greater labor market vulnerability. These women are however more likely to own assets, a strategy likely aimed at improving their exit options. Interestingly, when men have relatively more power within the household, there are positive implications for women's labour market outcomes- women are more likely to be currently employed and less likely to be unpaid workers in family businesses. An explanation for this may be found in the country's high poverty levels and general economic hardships which necessitates the influx of additional resources into the household through women's paid employment. Greater absolute and relative autonomy of male partners however reduces women's asset ownership, likely because greater resource accumulation by women, beyond wage receipts, can be an indicator of dominance within the household, a position typically ascribed to men by cultural and patriarchal norms. These results suggest that relative perceptions of authority and autonomy in the household are important determinants of Nigerian women's labour market behaviours and asset ownership, and the influences of male partners cannot, and should not, be underestimated.

Keywords: Household Decision making, labor market participation, assets ownership, patriarchal culture, Nigeria

I. Introduction

Disparities in women's labour market participation and economic advancement remain prevalent in Nigeria. According to ILO (2018), although 51.9% of the population aged over 15 years is employed, men are more likely to be employed (56.4%) than women (47.3%). In Nigeria, women are less likely to be active in the labour market; are more likely to be in lower-earning occupations like farming and informal jobs; and earn less for a given level of education and experience than men of the same level (Enfield, 2019). A consequence of this is the higher levels of poverty among women in the country, compared to men (Anyawu, 2010). There are also the macro-level growth and development implications for the country as a whole when women's potential labor market contributions to the economy are not adequately harnessed (Klasen, 2002; Akyeampong and Fofack, 2013).

The prevalence of traditional norms has been identified as an important driver of gender inequality in many developing country labor markets. Traditional norms often comprise a set of unwritten rules and beliefs that influence and shape expectations and behaviors of individuals. In Nigeria, and in many other African contexts, these norms typically define women's responsibilities and restrain their mobility through the definition of certain attributes of 'accepted' behaviors. These accepted behaviors include rules around the role of women as caregivers, housewives and mothers; the restriction on women's mobility for protective reasons, among others (World Bank, 2012).

To the extent that women's labour market involvement and economic advancement are closely associated with their economic empowerment, with important implications for other household members' welfare, it is important to understand the underlying factors that influence these. While previous literature has more often focused on the causal effect of women's labor force participation on her bargaining power within the household (Anderson and Eswaran 2009; Acharya et al, 2010; Majlesi, 2016), the causality runs in the other direction as well and recent studies have begun to focus on this. Using evidence from India, Heath and Tan (2020) found that women's household autonomy indeed increased her labour supply. Biljon et al. (2018) also found that greater decision-making in the household was associated with a 92%-point increase in the likelihood that South African women would participate in the labour market.

This question has not been explored in a sub-Sahara African (SSA) setting like Nigeria where strong patriarchal leanings persist, women's labour market participation is relatively low, poverty is largely feminized, and women empowerment remains low. Additionally, the effects (absolute and relative) of partner's household decision-making power on women's labour market outcomes have not been examined, to the best of author's knowledge. In this paper, causal effects of men, women, and couple's relative autonomy on women's labor market outcomes and asset ownership are explored. Autonomy refers to the condition of independence or self-governance while decision-making power can be defined as one's ability to make important decisions within the household. Autonomy and decision-making power are used interchangeably in this paper.

Specific research questions are summarized below:

i. *Are women's household autonomy associated with better or worse labour market participation and asset ownership for them?*
ii. *Are male partners' household autonomy associated with better or worse economic outcomes for women?*
iii. *Do women have better or worse economic outcomes when male partners have greater decision-making power in the household, compared to women?*

The 2018 wave of the Nigeria Demographic and Health Survey (NDHS) is used in the analyses, along with a series of instrumental variable probit (I.e., research questions i and ii) and multinomial logistic regression models (i.e., research question iii) to address the stated research questions.

The remainder of the article is organized as follows: Section II presents a brief review of the existing literature, the study's conceptual frameworks, in addition to the country context. Section III describes the data, the construction of the household autonomy/decision-making index and the other components of the research methodology. Section IV presents the results from the empirical specifications, while Section V concludes with some discussions on policy implications of this research.

II. Literature Review, Conceptual Framework, and the Nigeria Context

a. Brief Literature Review on Autonomy, Patriarchy and Women's Economic Outcomes

The literature on the effects of female autonomy and household decision-making power on their labour market participation is scarce and inconclusive. On the one hand, a handful of studies have found that

increasing autonomy is linked with rising labour supply of women. Heath and Tan (2020), using the Hindu Succession Act in India as an exogenous shock found that with women's increased ability to inherit property, their labour force participation increased. Biljon et al. (2018) also showed that using cash transfers as an exogenous shock among South African women, increased decision-making power within their households led to higher labour force participation by women. Field et al. (2016) also found that increasing women's access to loans in India increased their household autonomy and led to 3-7% increases in their labour market participation. On the other hand, other researchers do not find significant effects of microfinance and higher bargaining power on women's labour market outcomes (Bannerjee et al. 2015; Crepon et al., 2015).

In addition to increased access to cash transfers, loans and microfinance, the prevalence of patriarchal norms may also influence women's decision-making power and autonomy within their households. Research on the link between women's gender role beliefs and their economic outcomes has also become a recent area of focus (Dildar, 2015; Miyata and Yamada, 2016; Luke, 2019). Corrigall and Konrad (2007) used data on the US and found that young women who held more traditional attitudes had a lower labor market attachment and also earned lower incomes, compared to other women with more egalitarian views. Christie-Mizell (2006) also used data on the US and found that women who endorsed traditional gender role beliefs were most strongly associated with a decrease in income. Neither of these studies controlled for potential endogeneity in the relationship between the endorsement of traditional gender role beliefs and women's labor market outcomes, however. Fortin (2015) examined the changing role of gender attitudes on women's labour force participation. She used women's self-reported risk of contracting HIV/AIDS as an instrument for their gender role attitudes and found that the acceptance of more traditional gender role attitudes explained the slow-down in female labour force participation in the US in the 2000s. Still in the US and using longitudinal data from the Michigan Study of Adolescent and Adult Life Transitions, Dicke et al. (2019) examined the role of traditional gender role beliefs on female's choice of occupations. They found that women who held particularly strong traditional beliefs were likely to be employed in non-STEM- related careers, although higher educational attainment appeared to lessen these effects. Studies on developing countries are less common- using the 2008 Demographic and Health Survey data on Turkish women and controlling for potential endogeneity using a scale of family conservatism, Dildar (2015) found that patriarchal

attitudes have a negative effect on women's labour force participation. Other studies, however, have not found a link between gender role beliefs and women's labour force participation (Miyata and Yamada, 2016; Rubio-Banón and Esteban-Lloret, 2016)

Critical, but noticeably absent, in the existing literature is the exploration of the link between women's autonomy and their economic outcomes in a SSA setting like Nigeria, where the cultural setting is an important driving factor and marriage confers significant influence over women's lives to their male partners (Makama, 2013; Lodin et al., 2019). Gender-based power inequalities can affect decision-making within the household (Population Council, 2009) and in many cultures, women have low household decision-making power, with cultural norms playing a more important role in this than their individual-level characteristics (Kritz and Adebusoye, 1999).

This research explores the effect of men, women, and couple's relative autonomy within households, as a likely manifestation of cultural norms and values, on women's labour market outcomes and asset ownership. An implicit assumption is that there is a discrepancy between the goals and interests of men and women and greater relative autonomy by women may allow them to successfully negotiate for and execute their labour market preferences and/or asset ownership within the marriage, irrespective of men's preferences.

b. Conceptual Framework

This paper draws from two theoretical frameworks relating to women's labour market involvement. The first, non-cooperative bargaining models (Woolley, 1988; Lundberg and Pollak, 1993), which predict that increases in female autonomy will lead to increases in their labour market participation. Here, differences in household members' welfare levels exist as a result of the differences in the amount of power that an individual wields within the household. An initial allocation of household resources therefore allows each household member to maximize their own utility (contrast with collective models where household members maximise the weighted sum of members' utilities- Manser and Brown, 1980; McElroy and Horney, 1981), given their increased autonomy. The increased access to resources and higher autonomy therefore increases women's desire to work and further improve her welfare (Heath and Tan, 2014).

The second conceptual framework is Benabou and Tirole's (2011) theory of moral behavior, which presents a concept of escalating commitments where an individual who has invested in certain social or cultural practices continues these investments, even when they are found not to be beneficial. It is therefore hypothesized that women with lower decision-making power, as a manifestation of culturally held values, may be less likely to be present in the labour market as these activities may conflict with women's belief and investments in their traditional roles as wives and mothers. The theory also suggests that socialization of boys at early stages conditions them to demonstrate patriarchal tendencies and exhibit preferences for their wives to remain at home and cater to domestic and childcare responsibilities. According to Prentice & Carranza (2002), children grow into adults with conditioned mindsets about how they should behave. It is therefore expected that where men have greater decision-making power within the household, women's labor market involvement and asset ownership are likely to be negatively affected.

c. Nigerian Cultural and Labour Market Context

Unemployment has been identified as the most important challenge facing the Nigerian economy (World Bank, 2015). Despite slight increases in economic growth over time, this does not seem to have translated to increased employment rates. Majority of workers are employed in the informal sector and only 8% of Nigerians are employed in the formal sector (EFInA, 2018).

Women's participation in the labour market has been increasing over time- from 39.3% in 1990 to 48.1% in 2011 (Oluwagbemiga et al., 2016; Enfield, 2019). Males however continue to make up a majority of the labour force- i.e., 56.4% compared to 47.3%, for females (ILO, 2018). Although majority of workers are characterised by low skills, women are mostly involved in particularly low-productivity subsistence or low- paid activities (World Bank, 2015). Women's relative absence in the formal economy has particularly dire consequences for their economic wellbeing and progress as government policies are predominantly focused on the country's formal sector. A consequence of these is the increasing feminization of poverty in Nigeria. For example, almost twice as many women as men live below the poverty line in the country (Enfield, 2019).

Egwurube (2016) cites the patriarchal system which infringes on the rights of women as a critical component of these poverty outcomes. In Nigeria, the impediments which prevent women from

participating meaningfully in economic activities are deeply entrenched in traditional beliefs, customs and low levels of women's involvement in decision making (Oluwagbemiga et al., 2016). Women are constrained in their movements, first, due to childcare and domestic responsibilities that reduce the time available to engage in labor market work. Married women may also experience limited mobility as husbands may monitor their wives' movements in order to limit potential interactions with other males (Agi, 2014; Lodin et al. 2019).

As mentioned above, an individual's cultural background plays an important role in framing his/her identity and values. Once early socialization has occurred and children have been placed in their culturally accepted and respective roles as male and female, this becomes internalized and may be difficult to change (Omokhodion, 2009). In Nigeria, as in many parts of the African continent, men are the decision makers, and women are responsible for domestic care and duties. Gender relations are guided by the tenets of patriarchy which relegates women to inferior roles (Akintan, 2013; Makama, 2013) and deviations from gender appropriate behaviour is typically met with informal reprisals by peers or by formal punishment, or threat of punishment, by authority figures (Omadjohwoefe, 2011).

III. Data/ Methods

a. Data and Empirical Strategy

This study uses data from the 2018 Nigeria Demographic and Health Survey (NDHS), which is a nationally representative survey implemented by the National Population Commission (NPC) in collaboration with the National Malaria Elimination Programme (NMEP) of the Federal Ministry of Health, Nigeria. The funding for the 2018 NDHS was provided by the United States Agency for International Development (USAID), Global Fund, Bill and Melinda Gates Foundation (BMGF), the United Nations Population Fund (UNFPA), and World Health Organisation (WHO). ICF provided technical assistance through The DHS Program, a USAID-funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide. The sample was selected using a stratified, two-stage cluster design, with enumeration areas (EA) as the sampling unit for the first stage. The second stage involved a complete listing of households in each of the 1,400 selected EAs. The targeted groups were women aged 15-49 years and men aged 15-59 years of age in randomly selected households across Nigeria. The men's questionnaire is shorter but

contained much of the same information as the women's questionnaire. A representative sample of approximately 42,000 households was selected for the survey (Nigerian Population Commission and ICF, 2019). The data set is comprised of household, women, men, births, children under 5, and couple's surveys. The couple survey is used in the present analysis and contains information on over 8,000 couples in the sample.

Probit and instrumental probit estimations are used in the exploration of the link between men and women's decision-making power and women's asset ownership (i.e., homes and lands) and labor market outcomes. Dependent variables include: (1) whether women are currently working or not; (2) whether women are self- or paid- employees; (3) whether women own their own home, or not; (4) whether women own their own land, or not. The main independent variables are men, women, and relative couple involvement in household decision-making.

For women who are currently working, multinomial logit regressions are used to explore the effects of women's, men's, and relative spousal decision-making power on the nature of their employment, using three mutually exclusive labor market statuses: (1) employment by family members (unpaid work); (2) employment by non-family members (wage employment); and (3) self-employment.

b. Construction of Index of Household Decision-making Power

Indices of women and male partners' respective household decision-making power were constructed from responses to the set of survey questions presented in Tables 1 and 2. Women's responses are coded as follows: 1= "respondent alone"; 2= "respondent and partner"; 3= "partner alone".[1] The responses were assigned scores through a principal component analysis technique. Scores were then standardized to take on values between 0 and 100. Higher scores for women (men) are indicative of their lower (higher) decision-making power within the household.

From Table 1, there is observed variation in the distribution of women's decision-making power within their households. Almost 10% of women report that their male partners take the sole decision on how women's earnings are spent. The standardized decision-making score for this group of women is characterized by the largest standard deviation, however, indicating a wide diversity in responses.

[1] In order for higher scores to be representative of male partners' greater decision-making power, these scores were reversed for responses given by male partners.

[Table 1 here]

Over half of women sampled reported that their male partners take the sole decision on women's healthcare (56%) and large household purchases (59%). Forty-one per cent of women reported that their male partners take the sole decision on their visits to family members. This group of women had the lowest decision-making power in the sample. Among 71% of women, male partners took the sole decision on how to spend their (i.e., husbands) own earnings. Although a smaller percentage of women (6%) take the sole decision on men's incomes, this is quite unusual and shows some power on these women's part. Women responses varied widely on this category.

In Table 2, over half of men reported that they took various household decisions by themselves, with the largest percentage observed for the decisions relating to spending of men's earnings. Standardized decision-making scores were generally high, indicating overall high decision-making power on the part of male partners.

[Table 2 here]

There are small differences in couples' responses on common decision-making questions. It is notable that for decisions relating to spending of husband's earnings and large household purchases, men report that women have more decision-making power than women themselves reported. Although differences in men and women's responses may reflect some cognitive bias, these subjective perceptions may influence women's labour market behaviors as well and are therefore worthy of investigation.

c. Methods

To explore the first two research questions (i.e., effects of men and women's decision-making power on women's labour market and asset ownership outcomes), a probit regression model is used. It is important to note, however, that there is the potential for endogeneity in this relationship. For example, women's labour market outcomes may also affect household decision-making power, as the literature documents. To this end, an instrumental variables approach is employed.

A base probit model is presented as follows:

$$EconomicOutcomes_i = \alpha_0 + \alpha_1 X_i + \alpha_2 Autonomy_i + \varepsilon_h \quad (1)$$

Where $EconomicOutcomes_h$ is the set of labour market and asset ownership outcomes; X_h represents the set of explanatory variables for woman i; $Autonomy_h$ represents men, women, and relative couple's decision-making power; and ε_h is the error term. α_0, α_1, α_2 are the vectors of coefficients.

A statistically significant coefficient α_2 may imply a correlation, and not a causal effect between household decision-making power and women's labour market outcomes, given that decision-making power may be endogenous. Therefore, an IV probit regression model is run where women's decision-making is instrumented by i) family structure (monogamy vs. polygyny) and ii) the number of cases of control issues that women experience at the hands of their male partners (i.e., husband/partner is jealous if woman talks with other men; husband accuses woman of unfaithfulness; husband does not permit woman to meet her female friends; husband tries to limit women's contact with family; husband insists of knowing where respondent is at all times). Studies show that family structure is a very important determinant of women's authority in decision-making (Sathar, 2000).

The first stage of the IV probit regression model estimation is given as:

$$Autonomy_h = \beta_0 + \beta_1 X_h + \beta_2 Instrument_h + \varepsilon_h \quad (2)$$

Where $Instrument_h$ represents family structure and number of control cases experienced by women. The other variables are as previously described in (1). The second stage of the two-stage least squares regression is given by equation (1) above where the variable for decision-making power is now the instrument(s) from equation (2).

To answer the third research question, a multinomial logistic regression (MNL) model is used to explore the effects of women, men, and couple decision-making on women's employment status - (1) unpaid work; (2) wage employment; and (3) self-employment. Unpaid work is designated as the base group and the probability of belonging to other working groups is compared to this base group of workers.

The MNL model allows the dependent variable to adopt three mutually exclusive values, k= 1, 2, or 3, defined for the ith individual as follows:

$$\Pr(Y_{ik}) = \Pr(Y_i = k|\ x_i;\ \beta_1, \beta_2, \dots, \beta_m) = \frac{\exp(\beta_{0k+}\, x_i \beta_k')}{\sum_{j=1}^{m} \exp\,(\beta_{0j} + x_i \beta_j')}$$, with k= 1, 2, 3

Where β_k is the row vector of regression coefficients of X for the kth category of the employment categories, Y.

$$\Pr(Y_{i1}) = \frac{1}{1 + \sum_{j=2}^{m} \exp\,(\beta_{0j} + x_i\beta_j')}$$

and

$$\Pr(Y_{ik}) = \frac{\exp(\beta_{0k+} x_i\beta_k')}{1+ \sum_{j=2}^{m} \exp\left(\beta_{0j+} x_i\beta_j'\right)}\text{ , with k= 2, 3}$$

Odds ratios of these results are presented in the results section, which produce the odds of belonging to one of these work statuses because of changes in the various explanatory variables.

d. Descriptive Statistics of Study Variables

Table 3 describes summary statistics for study variables from the 2018 NDHS Couple survey. The dependent variables are women's labor market outcomes and their ownership of two assets- land and homes. It is observed that 70% of women report that they are currently working. With respect to their employment status, 78% of women are self-employed. Self-employment women in Nigeria typically involves retail trade, dressmaking, cloth dying (adire making), food production, and petty trading. Twelve percent of women work with family members and 10% of married women in the sample are engaged in wage employment. With respect to asset ownership, 6% of women report that they own their own land while 12% of women own their own homes.

The main independent variables of interest are women's, men's, and relative spousal household decision-making scores, which have been standardized to take value between 0 and 100. Higher scores for women indicate greater decision-making power of their male partners, and higher scores for men also indicates greater decision-making power by men. On average, men's decision-making score of 69.7 is higher than women's score of 47, suggesting that men's perceptions of their authority is higher than women's subjective perceptions of this. Couple relative decision-making power is constructed as a ratio of women's decision-making scores to total spousal scores. On average, relative spousal decision-making scores is 46, again, suggesting that men's perceptions of their household decision-making power, compared to women's, may be exaggerated.

[Table 3 here]

On average, women in the sample are 31 years of age and have 6 years of education, compared to 7 years for the average male partner. The Hausa are the most dominant ethnic group and make up 33% of the sample. Igbos, Yorubas and Fulanis make up 15%, 16% and 7%, respectively, while other ethnicities make up about 30% of the sample.

With respect to religion, Muslim women make up 58% of the sample, while Catholics and other Christians make up 9% and 33%, respectively. About 45% of Nigerian women in the sample are resident in urban areas. On average women have about 2 children under 5 years resident in the household, with the maximum number in the study being 8. The geographical distribution of women is also summarized in the table, with most women sampled reporting that they are resident in the North West zone of the country.

IV. Results

This section presents four sets of results: 1) effects of women's decision-making power on their asset ownership and labor market outcomes; 2) effects of men's decision-making power on women's asset ownership and labor market outcomes; 3) effects of relative spousal decision-making power on women's asset ownership and labor market outcomes; and 4) multinomial regressions of the effects of men, women, and relative spousal decision-making power on the nature of women's work (i.e., unpaid work; wage employment; or self-employment).

a. Effects of Women's Decision-making Power *on Asset Ownership and Labour Market Outcomes*

Table 4 presents results from probit and IV-probit regressions of women's economic and labor market outcomes on their standardized decision-making power scores and other explanatory variables. It is observed that a one-standard degree increase in women's standardized scores reduced women's likelihood of being currently employment by 4%. Women with higher scores, and relatedly, less absolute decision-making power, while being less likely to be currently employed, were however 3% and 4% more likely to own their own plots and homes, respectively, controlling for potential endogeneity.

[Table 4 here]

b. Effects of Men's Decision-making Power *on Asset Ownership and Labour Market Outcomes*

Table 5 presents probit and IV-probit results of male partners' decision-making power on women's asset ownership and labor market participation. Without controls for endogeneity, probit regression showed worse labour market outcomes for women when men have greater decision-making power these results become non-significant once endogeneity is accounted for in the iv-probit regression specifications. On its own, men's absolute decision-making power has insignificant effects on women's labour market outcomes. However, increasing decision-making power by men is marginally significantly (i.e., at 10% level of significance) associated with women's lower likelihood of owning their own plots of land, controlling for potential endogeneity. Here, a one-standard degree increase in male-partners' bargaining power reduced the likelihood of women owning their own land by about 3%.

[Table 5 here]

c. Effects of Relative Spousal Household Decision making Scores *on Asset Ownership and Labour Market Outcomes*

This section explores the effect of relative spousal decision-making power on women's asset ownership and labor market outcomes. In Table 6, when women's male partners are more involved in decision-making within the households, compared to women, this appears to have positive implications for women's labor market outcomes. For example, when men have more decision-making power, women are 4.4% more likely to be currently employed and 4.3% more likely to be in self-employment. When women's male partners are more involved in household decision-making however, women are 4.3% and 4.4% less likely to own their own homes and lands, respectively. Including separate controls for both men and women's absolute decision-making power leaves results largely unchanged (*results available upon request)*.

[Table 6 here]

To check for the weak instruments, results of first stage regressions are checked and some statistically significant associations are found between decision-making power and each of the instruments. In the main model, significant Wald tests for testing the null hypothesis of "no endogeneity", indicate that endogeneity is present and instrumental variable analyses are appropriate.

In summary, from Table 4, women with less decision-making power within their households are less likely to be currently working but were more likely to own assets like land and homes. From Table 5, when male partners have more absolute power within the household, women have a lower likelihood of owning assets. This effect on women's asset ownership is unchanged when men have relatively more household decision-making power than their wives in Table 6. However, women do have higher likelihoods of being currently employed when their male partners have relatively greater autonomy within the household, likely because members benefit from additional household incomes, given rising economic hardships in the country (World Bank, 2021).

The link between women's asset ownership and decision-making power is interesting- women with lower decision-making power within their households are more likely to own assets like land and homes. It is likely that women's ownership of assets is used to improve her exit options, given her low decision-making power within the household, which may pose a threat to her welfare. Panda and Agarwal (2005) have shown that women's house and land ownership can be protective against women's experience of physical and psychological intimate partner abuse.

Where men have greater absolute and relative decision-making power than women, however, women are less likely to own land and home assets, likely because in some societies, asset ownership may be an indicator of men's dominance in this patriarchal setting (Peterman et al., 2017).

Although not the focus of the study, other results from regressions in Tables 4- 6 above are worthy of note. Older women are more likely to be currently employed, although this likelihood falls with increases in age above a certain threshold. Women with more years of education are less likely to be self-employed and more likely to work as wage employees in non-family establishments. With respect to the different ethnic groups, Yoruba women are generally more likely to be currently working, self-employed and own their own land, compared to other ethnic groups. Fulani women, on the other hand, are less likely to be currently working, and less likely to own their own land resources. Finally, Hausa women are less likely to be currently employed and less likely to own home and land resources. When they work, they are more likely to be self-employed. Using Muslim women as the base group, Catholic and other Christian women are more likely to be currently working and more likely to own land resources.

Compared to women in the poorest wealth quintiles, other women have a larger likelihood of being self-employed, compared to working as employees. These women are less likely to own their own land assets, however. Women with more children under five years of age in the household are more likely to be currently employed and working as wage employees.

d. Multinomial Regressions of Women's Work Status

In Table 7, multinomial logistic regression models of females' employment statuses are used to demonstrate how these are related with absolute and relative household decision-making power of women and their male partners. The dependent variable is one of the following three categories for women:(1) employment by family members/unpaid work; (2) employment by non-family members/ wage employment; and (3) self-employment. In Specifications 1, 2 and 3, we examine the effects of women, men, and relative couple decision-making power on women's employment statuses, respectively.

It is observed that higher decision-making power of men (Specification 2) and lower decision-making power of women (Specification 1) is associated with women's lower odds of their being self-employed and higher odds of unpaid work, compared to wage employment. An interesting finding is that when men have relatively greater decision-making power, compared to their spouses (Specification 3), the outcomes are completely reversed, and women have lower odds of unpaid employment but higher odds of being self-employed. These results suggest, therefore, that decision-making power by both men and women, and the relative interaction between couples is important for understanding women's employment statuses in Nigeria.

[Table 7 here]

As proposed above, an explanation for the correlation between men's relatively greater autonomy and women's higher odds of working in paid employment may be that given the country's high poverty levels and economic hardships (World Bank, 2021), the household could benefit from increased receipts from women's wage work. The earlier observed negative association with women's asset ownership, however (Table 6), may suggest men's unwillingness to encourage greater resource accumulation by women, beyond wage receipts, since asset ownership can be an indicator of dominance within the household, a position typically ascribed to men by cultural and patriarchal norms.

V. Conclusion

Although studies on the link between cultural norms, household decision-making power and their economic outcomes are inconclusive, notable is the implicit agreement that traditionally held gender norms and likely manifestations in household decision-making power have negative implications for women's economic welfare outcomes. Results from this research are consistent with others (e.g., Fortin, 2015; Dildar, 2015; Dicke et al. 2019) which find that women's lower household decision making power has negative implications for their labor market outcomes. In this study, women with less decision-making power within their households were less likely to be currently employed. When they worked, they had higher odds of being employed by family, rather than by non-family members, which has often been labelled as vulnerable employment (ILO, 2018). These women were however more likely to own their own land and home assets, likely as an attempt to improve their exit options.

Existing research has shown that traditional gender role beliefs are more strongly endorsed by men than by women (Larsen and Long, 1988; Brewster and Padavic, 2000). With increases in men's household decision-making power, women had lower odds of owning assets. Although men's power in the household did not have any significant effects on women being currently employed or not, when women did work, they were more likely to be working for family when men had more absolute decision-making power.

A major contribution of this research is the use of men and couple's relative decision-making power in the examination of determinants of women's asset ownership and labor market outcomes in the Nigerian context. Results were quite interesting- where men wielded more decision-making power than their wives, women had beneficial labor market outcomes in the sense that they were then more likely to be currently employed. Furthermore, working women were more likely to be self-employed and less likely to be involved in unpaid work. Women however had lower odds of owning assets.

It is important to note that a major limitation of the analyses is the use of cross-sectional data with no prior information on the main reasons that women were not working.

There is a growing concern globally that women's relative lack of rights of access and control of land, housing, and assets contributes to their increasing poverty. In this paper, only 6% of women reported that they own their own land while 12% of women own their own homes. It is argued that in most

patriarchal societies, women's property rights are often attained vicariously, usually through their husbands (Blau et al., 2014). From a policy perspective, a recognition of women's asset ownership as a necessary condition to improved wellbeing of the household and nation, as a whole, should encourage the removal of social and cultural barriers to this realization. One way to do this may be to include men, and other relevant community stakeholders, in discussions, as a first step, to changing restrictive social and cultural norms in order to improve women's economic empowerment.

According to World Bank (2019), women's labour force participation, at 45.5%, has been rising, but remains lower than that of their male counterpart. Given women's predominant involvement in self-employment and the informal sector, public policy interventions to remove legal, political, and cultural constraints should be pursued in this space, rather than the present focus on the formal sector (Enfield, 2019). Interventions such as access to microfinance, land titling and other interventions to improve women's labour force participation and increase their ownership of assets should be considered.

Conflict of Interest Statement

There are no conflicts of interest with this research

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Table 1: Distribution of IPA, NDHS (2018)

NDHS Survey Questions	Raw Data (%) (Women, Both, Men)	Score[a]	Decision[b]	Standard deviation[c]
Q1. Who is the person who usually decides how to spend respondent's earnings?	67%, 23%, 10%	9.78	57.85	19.04
Q2. Who is the person who usually decides on respondent's health care?	8%, 36%, 56%	56.05	67.05	11.27
Q3. Who is the person who usually decides on large household purchases?	5%, 37%, 59%	58.73	65.08	13.20
Q4. Who is the person who usually decides on the respondent's visits to family or relatives?	11%, 48%, 41%	40.92	71.77	9.30
Q5. Who is the person who usually decides what to do with money husband earns?	6%, 23%, 71%	71.28	56.71	17.77

Source: Author calculations using 2018 NDHS

Notes: [a] The percentage of **women** who respond that "male partner only" takes the decisions. [b]The Decision-making index takes a value from 0 to 100. Average scores are presented in table, with higher scores indicative of lower involvement in decision-making by women. [c] Standard deviation of calculated household decision-making scores

Table 2: Distribution of Household Decision-making Scores, NDHS (2018)

NDHS Survey Questions	Score[a]	Decision[b]	Standard deviation[c]
Q1. Who is the person who usually decides how to spend respondent's earnings?	64.88	90.76	16.41
Q2. Who is the person who usually decides on respondent's health care?	58.18	95.28	10.79
Q3. Who is the person who usually decides on large household purchases?	54.09	96.19	11.06

Source: Author calculations using 2018 NDHS

Notes: [a] The percentage of **men** who respond that "male partner only" takes the decisions. [b]The household decision-making index takes a value from 0 to 100. Average scores are presented in table, with higher scores indicative of greater involvement in household decision-making by men. [c] Standard deviation of calculated decision-making scores

Table 3: Descriptive Statistics, NDHS (2018)

	Mean/Proportion	SD	Minimum	Maximum
Dependent Variables				
Currently employed	0.701	0.46	0	1
Self employed	0.777	0.42	0	1
Employees (family members)	0.124	0.33	0	1
Employees (non-family members)	0.100	0.30	0	1
Own land	0.056	0.23	0	1
Own home	0.120	0.33	0	1
Main independent variables				
Women decision-making score	47.164	20.61	0	82.88
Men decision-making score	69.705	35.00	0	100
Couple's decision-making score	0.464	0.250	0	1
Other Explanatory Variables				
Woman age	30.900	7.79	15	49
Woman years of education	6.165	5.79	0	20
Partner years of education	7.828	6.00	0	20
Ethnicity				
Igbo	0.148	0.36	0	1
Yoruba	0.160	0.37	0	1
Fulani	0.065	0.25	0	1
Hausa	0.331	0.47	0	1
Other group	0.296	0.46	0	1
Religion[2]				
Catholic	0.089	0.29	0	1
Other christian	0.329	0.47	0	1
Muslim religion	0.581	0.49	0	1
Wealth Quintiles				
Poorest	0.176	0.38	0	1
Poorer	0.195	0.40	0	1
Middle	0.194	0.40	0	1
Richer	0.204	0.40	0	1
Richest	0.231	0.42	0	1
Urban residence	0.452	0.50	0	1
Number of children under 5 years	1.718	1.25	0	8
Regional Zones				
North central zone	0.125	0.33	0	1
North east zone	0.153	0.36	0	1
North west zone	0.325	0.47	0	1
South east zone	0.110	0.31	0	1
South south zone	0.094	0.29	0	1
South west zone	0.193	0.39	0	1
Observations	6795			

Notes: Author constructed using 2018 NDHS. Household survey weights applied.

[2] Traditionalists and "other" religions are dropped from the analyses as they each make up less than half a percentage point of the sample

Table 4: Probit and IV Probit estimations of Women's Household Decision making Power on their Economic Outcomes

	Currently Employed		Self employed (vs. paid employees)		Own home		Own land	
	Probit	*IV-Probit*	*Probit*	*IV-Probit*	*Probit*	*IV-Probit*	*Probit*	*IV-Probit*
Decision-making	-0.000	-0.037***	-0.002***	-0.018	0.000	0.039***	-0.001***	0.032***
(woman)	(-0.89)	(-2.86)	(-3.89)	(-1.15)	(1.02)	(3.64)	(-3.36)	(2.63)
Woman age	0.008***	0.053	0.005	-0.001	0.003	0.050*	0.004	0.063**
	(2.82)	(1.35)	(0.78)	(-0.03)	(0.70)	(1.83)	(1.25)	(2.09)
Age squared	-0.000**	-0.001	-0.000	-0.000	0.000	-0.000	-0.000	-0.001
	(-2.27)	(-1.35)	(-1.04)	(-0.30)	(0.20)	(-0.75)	(-0.69)	(-1.37)
Woman years	-0.000	-0.014	-0.012***	-0.056***	0.001	0.016*	-0.001	0.003
education	(-0.17)	(-1.28)	(-6.46)	(-6.88)	(0.95)	(1.81)	(-1.13)	(0.30)
Partner years	-0.002**	-0.019*	0.001	0.004	0.000	0.002	0.001	0.005
education	(-2.53)	(-1.93)	(0.38)	(0.52)	(0.32)	(0.32)	(0.59)	(0.70)
Igbo	0.009	0.027	-0.002	-0.069	0.008	0.202	-0.010	0.084
(base= other)	(0.67)	(0.16)	(-0.06)	(-0.54)	(0.32)	(1.40)	(-0.68)	(0.66)
Yoruba	0.019*	0.154	0.112***	0.345***	0.021	0.298**	0.030*	0.325***
	(1.74)	(0.74)	(4.41)	(2.61)	(0.85)	(2.14)	(1.91)	(3.32)
Fulani	-0.006	0.085	0.079*	0.373**	-0.008	-0.228	-0.053***	-0.733**
	(-0.34)	(0.46)	(1.84)	(2.12)	(-0.29)	(-1.16)	(-4.03)	(-2.56)
Hausa	-0.021	0.018	0.109***	0.427***	-0.057***	-0.516***	-0.030**	-0.415***
	(-1.33)	(0.10)	(4.34)	(3.45)	(-4.43)	(-4.36)	(-2.30)	(-3.23)
Catholic	-0.005	-0.175	-0.062**	-0.279**	0.014	0.353***	0.081***	0.694***
(*base= Muslim)*	(-0.36)	(-0.98)	(-2.12)	(-2.07)	(0.72)	(2.62)	(4.20)	(5.24)
Other Christian	-0.009	-0.239*	-0.058***	-0.288***	0.004	0.217**	0.026***	0.368***
	(-0.72)	(-1.88)	(-2.83)	(-2.72)	(0.31)	(2.09)	(2.75)	(3.91)
Poorer	0.018	0.037	0.060**	0.218*	-0.018	-0.000	0.016	0.197*
(base=poorest)	(1.62)	(0.29)	(2.20)	(1.81)	(-1.02)	(-0.00)	(1.13)	(1.80)
Middle	0.025**	0.240	0.080***	0.339***	-0.055***	-0.231*	0.001	0.076
	(2.25)	(1.61)	(2.76)	(2.91)	(-3.13)	(-1.76)	(0.06)	(0.69)
Richer	0.024*	0.108	0.092***	0.376***	-0.065***	-0.289*	-0.003	0.069
	(1.92)	(0.64)	(3.00)	(2.71)	(-3.44)	(-1.74)	(-0.23)	(0.54)
Richest	-0.000	-0.193	0.030	0.123	-0.077***	-0.370*	-0.006	0.049
	(-0.02)	(-1.18)	(0.84)	(0.78)	(-3.90)	(-1.72)	(-0.38)	(0.32)
Urban	0.003	-0.095	-0.028*	-0.101	-0.023**	-0.086	-0.009	0.014
	(0.34)	(-1.13)	(-1.66)	(-1.52)	(-2.34)	(-1.01)	(-1.11)	(0.19)
# Under 5	-0.004*	-0.007	-0.011*	-0.034	-0.007**	-0.096***	-0.003	-0.053*
childre	(-1.65)	(-0.17)	(-1.83)	(-1.12)	(-2.04)	(-3.40)	(-0.98)	(-1.81)
North Central	0.021	0.058	-0.091***	-0.427***	-0.042*	-0.091	0.069***	0.454***
(base= N.West)	(1.27)	(0.36)	(-2.74)	(-3.54)	(-1.80)	(-0.64)	(3.64)	(2.88)
North East	0.021	0.097	-0.142***	-0.514***	-0.016	0.034	0.002	0.100
	(1.47)	(0.71)	(-4.27)	(-4.07)	(-0.73)	(0.28)	(0.10)	(0.73)
South East	0.018	-0.154	0.033	-0.022	-0.035	0.237	0.019	0.450**
	(0.84)	(-0.54)	(0.88)	(-0.09)	(-1.12)	(1.01)	(0.88)	(2.19)
South south	0.040***	0.086	0.043	0.017	-0.023	0.265	0.016	0.360**
	(2.62)	(0.33)	(1.38)	(0.10)	(-0.86)	(1.59)	(0.90)	(2.11)
South west	0.032*	0.259	-0.000	-0.079	-0.075***	-0.311*	-0.011	0.001
	(1.80)	(1.13)	(-0.00)	(-0.55)	(-3.18)	(-1.66)	(-0.76)	(0.00)
N	4758	3781	4758	3781	4758	3781	4758	3781

Source: Author calculations using NDHS (2018); marginal effects reported

Notes: t statistics in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Standard errors clustered at the NDHS cluster level

Table 5: Probit and IV Probit estimations of Men's Household Decision making Power on Women's Economic Outcomes

	Currently Employed		Self employed (vs. paid employees)		Own home		Own Land	
	Probit	*IV-Probit*	*Probit*	*IV-Probit*	*Probit*	*IV-Probit*	*Probit*	*IV-Probit*
Decision-making	-0.0003**	-0.013	-0.0003*	-0.024	0.000	-0.026	0.0001*	-0.027*
(Male partner)	(-1.99)	(-0.48)	(-1.77)	(-0.71)	(0.48)	(-0.67)	(1.81)	(-1.92)
Woman age	0.032***	0.103**	0.011*	0.012	0.002	0.014	0.005*	0.045
	(6.40)	(1.98)	(1.73)	(0.18)	(0.85)	(0.20)	(1.87)	(0.51)
Age squared	-0.000***	-0.001**	-0.000*	-0.000	0.000	-0.000	-0.000	-0.001
	(-4.03)	(-2.09)	(-1.72)	(-0.26)	(0.21)	(-0.24)	(-1.18)	(-0.58)
Woman years	0.002	0.003	-0.012***	-0.044	0.001	-0.012	-0.000	-0.016*
education	(1.31)	(0.13)	(-6.43)	(-1.03)	(0.99)	(-0.40)	(-0.15)	(-1.94)
Partner years	0.003**	0.006	0.001	0.006	0.001*	0.008	0.001	0.010
education	(1.98)	(1.14)	(0.48)	(0.65)	(1.74)	(0.45)	(1.49)	(0.79)
Igbo	0.004	0.049	0.000	0.077	-0.005	0.142	0.004	0.149
(base= other)	(0.12)	(0.33)	(0.01)	(0.33)	(-0.24)	(1.33)	(0.28)	(1.51)
Yoruba	0.163***	0.614***	0.138***	0.450	0.030	0.248	0.037**	0.276
	(7.03)	(4.06)	(5.87)	(1.00)	(1.26)	(0.71)	(2.57)	(1.21)
Fulani	-0.170***	-0.530***	0.061	0.164	-0.015	-0.220	-0.022**	-0.362
	(-5.02)	(-4.45)	(1.49)	(0.77)	(-0.79)	(-1.47)	(-2.13)	(-1.06)
Hausa	-0.038	-0.115	0.118***	0.345	-0.046***	-0.240	-0.021**	-0.167
	(-1.48)	(-1.32)	(4.42)	(0.86)	(-3.70)	(-0.31)	(-2.23)	(-0.71)
Catholic	0.124***	0.321	0.017	-0.123	0.016	-0.099	0.043***	-0.025
(*base= Muslim)*	(4.66)	(0.80)	(0.65)	(-0.31)	(0.92)	(-0.15)	(3.30)	(-0.06)
Other Christian	0.086***	0.189	-0.007	-0.195	0.005	-0.171	0.019***	-0.121
	(3.86)	(0.55)	(-0.35)	(-0.95)	(0.48)	(-0.41)	(2.60)	(-0.46)
Poorer	-0.008	-0.167	0.051**	-0.121	-0.023	-0.337**	0.019**	-0.204
(base=poorest)	(-0.47)	(-0.59)	(2.01)	(-0.19)	(-1.60)	(-2.30)	(1.98)	(-0.73)
Middle	-0.004	-0.160	0.085***	-0.020	-0.049***	-0.437	0.005	-0.244
	(-0.18)	(-0.58)	(3.11)	(-0.02)	(-3.45)	(-1.37)	(0.50)	(-1.22)
Richer	-0.031	-0.289	0.104***	-0.062	-0.052***	-0.528*	0.009	-0.294
	(-1.32)	(-0.93)	(3.54)	(-0.06)	(-3.48)	(-1.76)	(0.87)	(-1.06)
Richest	-0.102***	-0.511*	0.061*	-0.220	-0.067***	-0.741	0.003	-0.439**
	(-3.72)	(-1.66)	(1.83)	(-0.25)	(-4.43)	(-0.95)	(0.30)	(-2.32)
Urban	-0.019	-0.046	-0.024	-0.031	-0.016**	-0.033	0.001	0.064
	(-1.26)	(-0.41)	(-1.46)	(-0.24)	(-2.08)	(-0.07)	(0.10)	(1.10)
# Under 5	0.005	0.010	-0.010	-0.011	-0.003	-0.009	-0.002	-0.009
children	(1.04)	(0.55)	(-1.59)	(-0.18)	(-0.92)	(-0.13)	(-1.03)	(-0.24)
North Central	0.052*	0.227**	-0.133***	-0.038	-0.037**	-0.028	0.026*	0.201
(base= N. West)	(1.89)	(2.19)	(-3.93)	(-0.03)	(-2.07)	(-0.04)	(1.76)	(1.36)
North East	0.062**	0.184	-0.113***	-0.187	-0.008	0.004	-0.006	-0.037
	(2.57)	(1.18)	(-3.57)	(-0.26)	(-0.45)	(0.02)	(-0.46)	(-0.34)
South East	0.105**	0.282	0.017	-0.050	-0.018	-0.354*	0.010	-0.280
	(2.53)	(0.55)	(0.44)	(-0.19)	(-0.68)	(-1.95)	(0.53)	(-1.34)
South south	0.076**	0.215	0.006	0.109	-0.015	-0.025	0.016	0.007
	(2.32)	(1.29)	(0.18)	(0.34)	(-0.72)	(-0.20)	(0.89)	(0.05)
South west	0.122***	0.486***	-0.044	0.128	-0.058***	-0.158	-0.020	-0.053
	(3.52)	(3.07)	(-1.24)	(0.19)	(-3.17)	(-0.14)	(-1.45)	(-0.16)
N	6795	5405	5001	3991	6795	5405	6795	5405

Source: Author calculations using NDHS (2018); marginal effects reported

Notes: t statistics in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Standard errors clustered at the NDHS cluster level

Table 6: Probit and IV Probit estimations of Relative Spousal Household Decision making Power on Women's Economic Outcomes

	Currently Employed		Self employed (vs. paid employees)		Own home		Own Land	
	Probit	*IV-Probit*	*Probit*	*IV-Probit*	*Probit*	*IV-Probit*	*Probit*	*IV-Probit*
Decision-making	0.030**	4.366***	0.064**	4.345***	0.001	-4.272***	-0.044***	-4.354***
(Couple)	(2.01)	(39.42)	(2.23)	(37.03)	(0.05)	(-18.40)	(-2.95)	(-34.24)
Woman age	0.008**	0.023	0.006	0.016	-0.000	-0.012	0.005	-0.001
	(2.53)	(0.80)	(0.82)	(0.84)	(-0.07)	(-0.61)	(1.24)	(-0.06)
Age squared	-0.000**	-0.000	-0.000	-0.000	0.000	0.000	-0.000	0.000
	(-2.02)	(-0.70)	(-1.01)	(-0.67)	(0.90)	(0.70)	(-0.68)	(0.11)
Woman	0.000	-0.012**	-0.013***	-0.019	0.001	0.013**	-0.001	0.011*
education	(0.33)	(-2.02)	(-6.55)	(-1.47)	(0.74)	(2.36)	(-0.61)	(1.88)
Partner	-0.002***	0.002	-0.000	0.006	0.001	-0.004	0.001	-0.004
education	(-2.71)	(0.18)	(-0.14)	(1.22)	(1.26)	(-0.69)	(0.94)	(-0.70)
Igbo	0.011	0.248**	-0.002	0.223**	0.014	-0.179	0.000	-0.207*
(base= other)	(0.83)	(2.31)	(-0.07)	(2.19)	(0.54)	(-1.37)	(0.03)	(-1.96)
Yoruba	0.022*	0.301**	0.123***	0.301***	0.039	-0.195*	0.039**	-0.193**
	(1.87)	(2.24)	(4.91)	(2.89)	(1.34)	(-1.74)	(2.27)	(-1.97)
Fulani	-0.003	-0.116	0.054	-0.085	0.006	0.115	-0.045***	-0.020
	(-0.17)	(-1.06)	(1.10)	(-0.79)	(0.20)	(1.08)	(-3.53)	(-0.11)
Hausa	-0.016	0.028	0.095***	0.081	-0.051***	-0.111	-0.025*	-0.109
	(-0.96)	(0.27)	(3.47)	(0.80)	(-3.81)	(-0.93)	(-1.85)	(-0.99)
Catholic	-0.000	-0.266**	-0.012	-0.286***	0.007	0.292***	0.065***	0.370**
(*base= Muslim)*	(-0.03)	(-2.36)	(-0.43)	(-2.79)	(0.33)	(2.78)	(3.36)	(2.55)
Other Christian	-0.007	-0.065	-0.029	-0.072	0.001	0.056	0.024**	0.095
	(-0.55)	(-0.99)	(-1.36)	(-1.05)	(0.06)	(0.85)	(2.36)	(1.18)
Poorer	0.018	-0.254**	0.076**	-0.245**	-0.032	0.237**	0.025	0.307***
(base=poorest)	(1.46)	(-2.46)	(2.49)	(-2.41)	(-1.55)	(2.45)	(1.64)	(4.04)
Middle	0.032***	-0.208	0.095***	-0.222*	-0.076***	0.167	0.007	0.273***
	(2.67)	(-1.17)	(3.03)	(-1.88)	(-3.84)	(1.05)	(0.52)	(3.67)
Richer	0.022	-0.336**	0.108***	-0.320**	-0.085***	0.250	0.007	0.376***
	(1.58)	(-2.48)	(3.28)	(-2.34)	(-3.99)	(1.26)	(0.50)	(4.57)
Richest	-0.003	-0.351***	0.062*	-0.319***	-0.092***	0.202	0.005	0.335***
	(-0.15)	(-3.78)	(1.66)	(-2.76)	(-4.10)	(0.87)	(0.36)	(3.51)
Urban	0.004	0.057	-0.030*	0.052	-0.021**	-0.097	-0.006	-0.064
	(0.53)	(1.03)	(-1.70)	(0.92)	(-2.14)	(-1.43)	(-0.75)	(-1.20)
# Under 5	-0.003	-0.026	-0.015**	-0.027	-0.005	0.012	-0.001	0.021
children	(-1.11)	(-1.17)	(-2.37)	(-1.29)	(-1.48)	(0.56)	(-0.44)	(1.14)
North Central	0.025	0.548***	-0.088***	0.477***	-0.064***	-0.576***	0.049**	-0.457***
(base= N. West)	(1.36)	(4.46)	(-2.58)	(3.18)	(-2.61)	(-4.37)	(2.42)	(-3.29)
North East	0.026*	0.228**	-0.165***	0.134	-0.016	-0.184*	0.006	-0.183*
	(1.65)	(2.12)	(-4.73)	(0.76)	(-0.65)	(-1.76)	(0.31)	(-1.74)
South East	0.025	0.278	0.029	0.252	-0.040	-0.275	0.020	-0.230
	(1.05)	(1.53)	(0.76)	(1.55)	(-1.23)	(-1.64)	(0.82)	(-1.41)
South south	0.045***	0.488***	0.032	0.433***	-0.022	-0.411***	0.021	-0.407***
	(2.63)	(2.64)	(0.99)	(3.24)	(-0.77)	(-2.91)	(0.99)	(-2.84)
South west	0.041**	0.718***	-0.012	0.644***	-0.086***	-0.751***	-0.016	-0.695***
	(2.18)	(4.16)	(-0.34)	(5.10)	(-3.40)	(-4.56)	(-0.93)	(-5.60)
N	4253	3391	4253	3391	4253	3391	4253	3391

Source: Author calculations using NDHS (2018); marginal effects reported
Notes: t statistics in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
Standard errors clustered at the NDHS cluster level

Table 7: Multinomial logit estimations on women's labour force status, Couple Data, NDHS (2018)

	Specification Set 1		Specification Set 2		Specification Set 3	
	Family members	*Self Employed*	*Family members*	*Self Employed*	*Family members*	*Self Employed*
Decision-making	0.00***	-0.00***	-	-	0.00***	-0.00***
(women)	(4.43)	(-3.73)	-	-	(4.49)	(-4.11)
Decision-making	-	-	0.00***	-0.00*	-0.00	0.00
(men)	-	-	(2.99)	(-1.82)	(-0.16)	(1.00)
Decision-making	-	-	-	-	-0.13*	0.17**
(couple)	-	-	-	-	(-1.80)	(2.18)
Woman age	-0.00	0.01	-0.01	0.01*	-0.00	0.00
	(-1.12)	(0.84)	(-1.30)	(1.78)	(-0.86)	(0.56)
Age squared	0.00	-0.00	0.00	-0.00*	0.00	-0.00
	(1.12)	(-1.09)	(1.08)	(-1.77)	(0.85)	(-0.80)
Woman years of	-0.00*	-0.01***	-0.00	-0.01***	-0.00	-0.02***
education	(-1.88)	(-6.94)	(-1.40)	(-6.88)	(-1.16)	(-7.04)
Partner years of	-0.00**	0.00	-0.00**	-0.00	-0.00*	-0.00
	(-2.17)	(0.03)	(-2.55)	(-0.08)	(-1.81)	(-0.62)
Igbo	0.02	-0.02	0.01	-0.02	0.02	-0.02
(base= other)	(0.53)	(-0.50)	(0.34)	(-0.47)	(0.41)	(-0.49)
Yoruba	-0.09***	0.12***	-0.12***	0.15***	-0.09***	0.13***
	(-4.46)	(4.85)	(-7.03)	(6.66)	(-4.82)	(5.05)
Fulani	-0.07***	0.06	-0.06**	0.05	-0.06**	0.04
	(-2.96)	(1.04)	(-2.19)	(1.12)	(-2.49)	(0.71)
Hausa	-0.10***	0.06**	-0.11***	0.08***	-0.09***	0.06**
	(-6.26)	(2.28)	(-5.66)	(2.67)	(-5.49)	(2.01)
Catholic	0.07***	-0.08***	0.02	0.00	0.04	-0.04
(*base= Muslim)*	(2.88)	(-2.63)	(0.79)	(0.09)	(1.63)	(-1.29)
Other Christian	0.04**	-0.07***	0.01	-0.02	0.03	-0.05**
	(2.53)	(-3.33)	(0.89)	(-1.02)	(1.56)	(-2.16)
Poorer	-0.02	0.06*	-0.01	0.05*	-0.02	0.07*
(base=poorest)	(-1.06)	(1.89)	(-0.83)	(1.72)	(-0.90)	(1.85)
Middle	-0.01	0.08**	-0.03	0.08**	-0.01	0.09**
	(-0.67)	(2.39)	(-1.23)	(2.53)	(-0.57)	(2.51)
Richer	-0.03	0.09***	-0.05**	0.10***	-0.02	0.10***
	(-1.44)	(2.59)	(-2.04)	(2.95)	(-1.03)	(2.58)
Richest	-0.05*	0.07*	-0.07***	0.10***	-0.04	0.09**
	(-1.78)	(1.95)	(-2.84)	(2.84)	(-1.56)	(2.20)
Urban	0.03**	-0.03*	0.02	-0.03*	0.04**	-0.03*
	(2.12)	(-1.80)	(1.52)	(-1.68)	(2.54)	(-1.93)
# Under 5	0.01	-0.01	0.01	-0.01	0.01*	-0.01*
children	(1.57)	(-1.62)	(1.29)	(-1.38)	(1.76)	(-1.83)
North Central	0.08***	-0.09***	0.11***	-0.13***	0.07***	-0.10***
(base= N.West)	(3.28)	(-3.03)	(4.06)	(-4.17)	(2.71)	(-3.01)
North East	0.11***	-0.12***	0.09***	-0.09***	0.11***	-0.13***
	(4.04)	(-3.82)	(3.64)	(-3.17)	(4.23)	(-4.07)
South East	-0.00	0.02	0.00	0.01	0.02	-0.00
	(-0.16)	(0.58)	(0.09)	(0.19)	(0.48)	(-0.01)
South south	-0.02	0.02	-0.00	-0.01	-0.00	0.00
	(-0.73)	(0.77)	(-0.11)	(-0.36)	(-0.13)	(0.09)
South west	-0.03	0.00	0.00	-0.04	-0.02	-0.01
	(-1.16)	(0.08)	(0.15)	(-1.08)	(-0.90)	(-0.41)
N	4758	4758	5001	5001	4253	4253

Source: Author calculations using NDHS (2018); marginal effects reported.
Notes: t statistics in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
Standard errors clustered at the NDHS cluster level