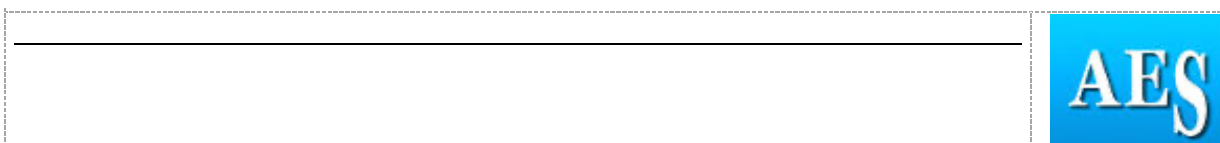


Extended Abstract
Please do not add your name or affiliation

Paper/Poster Title	Do Female-Headed Households Face Disadvantage in the Marketing of Cash Crops? Evidence from Uganda
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Abstract prepared for presentation at the 98th Annual Conference of The Agricultural Economics Society will be held at The University of Edinburgh, UK, 18th - 20th March 2024.

Abstract	<i>200 words max</i>
<p>The paper analyses whether female-headed households (FHH) face economic disadvantage in low-income agriculture settings. FHH are particularly likely to face disadvantage in cash crop settings that require high market orientation. The broader gender disadvantage faced by African women farmers may be amplified in cash crop marketing where success is boosted by production at scale, high quality, and low transaction cost. This paper focuses specifically on Uganda, where cotton is traditionally marketed by the head of the household. The research question examined is, do FHH face disadvantage with respect to the marketing of cotton compared to male-headed households (MHH)? Specifically, do FHH face disadvantage in key dimensions of marketing, viz. quantity sold, number of instalments, place of sale, mode of transportation, and prices received? We estimate a range of econometric models using purposively collected panel data on cotton farming in Uganda. Findings show a statistically significant influence of gender on examined marketing outcomes after controlling for multiple pathways, that suggests FHH face disadvantages in marketing.</p>	
Keywords	Gender, agricultural markets, marketing, agriculture, African economies, prices
JEL Code	Agricultural Economics: Agricultural Markets and Marketing Q13 Economic Development: Agriculture O13 see: www.aeaweb.org/jel/guide/jel.php?class=Q)
Introduction	<i>100 – 250 words</i>
<p>Gender is increasingly seen as a critical cross-cutting issue in sustainable development. The incidence of FHH globally has been increasing due to male migration to urban areas, armed conflict, and elevated</p>	



incidence of diseases such as HIV/AIDS especially in Sub-Saharan Africa (Chant 1997a; 2003; Horrell and Krishnan 2007). Women face well-documented barriers in terms of land access, education, networks, levels of inputs, access to technology, levels of market participation and methods of production. However, the challenges faced by FHH in cash crop settings that require high market orientation remain particularly under-explored. Cash crop production is defined by engagement in output markets. This engagement, in turn, depends on production at scale, high quality, and low transaction costs (Hill and Vigneri 2014). The role of gender aspects in agricultural marketing is under-researched.

Cotton is the fifth largest among Uganda's primary commodity export items after fish, gold, coffee, and tea. In the case of cotton, crop ownership and responsibility are usually assigned to the head of the household. In 2019, the proportion of FHH in Uganda was 28.3 according to the World Bank, and FHH typically cultivate cotton.

Methodology

100 – 250 words

Panel data was collected from a two-round cotton sector survey (2009, 2010) at the household, plot, instalment, and community levels, funded by the World Bank. The data represent Uganda's cotton sector but are not nationally representative (approximately 500 farmers were surveyed per round).

The outcome variables modelled are (i) quantity of cotton sold in kg, (ii) number of instalments of sale of cotton, (iii) place of sale of cotton (farmgate/intermediate-resources/high-resources), (iv) mode of transportation to the place of sale of cotton (manual/bicycle/advanced), and (v) mean cotton price at the household level (UGX/kg).

A broad set of control variables is included covering (i) gender of head, (ii) household characteristics, (iii) education, (iv) cash flow / income, (v) knowledge, (vi) public assets, (vii) social capital, (viii) trust,

(ix) instalment characteristics, (x) proportional transaction cost, and (xi) land tenure. Each outcome model includes a subset of these control variables.

Certain pairs of marketing outcomes are jointly estimated to model highly correlated and interdependent marketing decisions. The pairs are as follows: (i) quantity sold and number of instalments, (ii) place of sale and mode of transportation, (iii) quantity sold and price, and (iv) place of sale and price.

The conditional (recursive) mixed-process estimator (cmp) is used to estimate each pair of equations except the number of instalments, which is estimated using IV Poisson. FHH is not endogenous due to the time-invariant type of variable, thus justifying random effects panel analysis of the continuous variables (quantity sold and prices).

Results

100 – 250 words

The standalone regressions on quantity sold show that there is still a substantial negative FHH estimate remaining (65kg) after all the controls are included, indicating further disadvantage of FHH beyond those captured by the control variables. This represents a considerable amount given that the average quantity sold is 160-170 kgs for FHH across years. In contrast, the standalone Poisson regressions on number of instalments do not show gender differences when all controls are accounted for.

Ordered Probit regressions show that when the head of the household is female, the probability of selling at a low-resource place of sale increases by 3% and at an intermediate-resource place by 5%. In contrast, being a female head reduces the probability of selling at a high-resource place of sale by 8%. The probability of using a manual mode of transportation to the place of sale increases by 12% for FHH. In contrast, FHH status decreases the probability of bicycle use by 10% and of advanced mode of transportation by 3%. We find that FHH do not face disadvantage in prices, a finding that is robust across various sets of control variables.

The joint regressions confirm the significant gender effects in standalone regressions. Additional insights from the joint estimation include significant gender differences in the number of instalments when the pathway of quantity sold is incorporated in the model. In addition, we do not find evidence of gender differences in prices in the standalone estimation or jointly with cotton sale (kg), but only when the place of sale is jointly estimated with prices.

Discussion and Conclusion

100 – 250 words

Findings show statistically significant gender inequities in cotton sales (kg), place of sale, and mode of transportation based on joint and standalone estimations. There are gender disadvantages in the number of instalments only when cotton quantity sold is an instrument. We find evidence of gender differences in prices when the place of sale is jointly estimated with prices.

This paper fills a void in the literature, given the surprisingly thin base of evidence about how women are disadvantaged in agricultural marketing. The mode of transportation to the place of sale is under-researched even though female mobility constraints are generally acknowledged. Price analysis using own prices rather than average prices (across multiple crops) is important in understanding whether market access and participation differ by gender or household head while controlling for farmer characteristics that could potentially be endogenous. A comprehensive analysis of all the marketing intermediate outcomes, rather than a piecemeal approach, is critical to understanding the dynamic gender relationships in agricultural crop marketing.

This research has limitations: it estimates correlations rather than causal relationships and it does not address intrahousehold aspects. However, the results suggest that FHH face significant disadvantage

in marketing aspects, and that given the sparse literature on this area, this may be a fruitful area for further research.