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Do Inequality-based Entry Barriers Deter The Formation of Female-Owned Firms In Nigeria?

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Abstract

In this paper, we consider the role of inequality-based entry barriers on the formation of female-owned firms in Nigeria. With data from the 2010 World Enterprise Survey, we estimate the parameters of a simple model of female-owned firm entry to determine the role of inequality-based barriers on the number of female-owned firms across city-industry clusters in Nigeria. Parameter estimates from count data specifications of firm entry reveal that access to financing, land, and licenses/permits absolutely deter the entry of female-owned firms, as these entry barriers are proportional to the probability of observing no female-owned firms. In general, barriers to securing land constrain the entry of female-owned firms beyond the process determining absolute entry deterrence. This suggests that the market entry and underrepresentation of female-owned among firm-owners and entrepreneurs in Nigeria is, at least in part, caused by gender inequality in general. As private firm output dominates the gross domestic product of modern economies, our findings suggest that the reduction of gender inequality in Sub-Saharan Africa would result in more female-owned and entrepreneurs which would catalyze economic growth.

JEL Classification: *C25, J16, L1, L26, O55, Z13*

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I. Introduction

Gender inequality in Sub-Saharan African economies has been found to be harmful to human development (Elu, 2013), and one of its determinants—economic growth (Baliamoune-Lutz and McGillivray, 2009).[1] The recent finding by Elu (2013) that the elasticity of human development in Sub-Saharan Africa is a function of female access to bank loans suggests that gender inequality in Sub-Saharan Africa could also constrain the formation of female-owned firms, as credit financing is a crucial input for firms as their is evidence that relative to male-owned firms, female-owned firms in Sub-Saharan Africa are credit-constrained (Asiedu et.al, 2013). As firms and entrepreneurs entering a market contribute to an economy's gross domestic product, particularly in emerging/transition economies (McMillan and Woodruff, 2002), and can even possibly cause economic growth (Audretsch, 2007; Koellinger and Thurik, 2012), gender inequality that engender barriers to the formation of female-owned firms could constrain both economic growth and human development.

In this paper, we consider the role of inequality-based entry barriers on the formation of female-owned firms in Nigeria. With data from the 2010 World Enterprise Survey, we estimate the parameters of a simple model of female-owned firm entry to determine the role of inequality-based barriers on the number of female-owned firms across city-industry clusters in Nigeria. Surely, gender inequality in the formation of firms and entrepreneurship is a concern in all of Sub-Saharan Africa (Hallward-Driemeier, 2011). However, our focus on Nigeria is motivated by the fact that as Africa's largest country it has the most females—approximately 80.2 million girls and women—and its human development indicators are worse than those of comparable lower middle-income countries (British Council of Nigeria, 2012). As such, Nigeria with its high female population and low human development provides perhaps an ideal setting to identify the effects of gender inequality in Sub-Saharan Africa on female-owned firm formation, which is a potential driver of economic growth.

II. A Simple Limit Profit Model of Firm Entry

If firm owners are profit maximizers, a simple parsimonious theory of entry can proceed from viewing a typical firm as basing its entry decision on whether or not it can earn a profit sustainable against noncompetitive incumbents with cost advantages. Incumbents are assumed to possess advantages, associated with for example, superior production technology, managerial skill, networks, that enables them to produce a level of output

[1] Internationally, Human Development is officially measured by the United Nations Development Program's Human Development Index (HDI). The HDI is a composite index based on three sub-indexes, one of which is an index for a country's Gross Domestic Product (Anand and Sen, 2000)—which provides a linkage between human development and economic growth.

where price is close to marginal cost to the disadvantage of new entrants. This is the classic limit profit model of Orr (1974) where the limit rate of profit is defined as incumbent profit consistent with the level of entry barriers in the market/industry.[2] As the limit rate of profit is unobservable, it will be a function of factors that impose cost disadvantages—entry barriers—on new entrants such that if they entered, they could not compete with incumbents on pricing and output.

In a limit profit model, firm entry in market/industry i is determined by $E_i = \theta(\pi_i - \pi_i^*)$, where E_i is firm entry in market/industry i, π_i is expected post-entry profit, π_i^* is the limit rate of profit, and θ is the entry response parameter. As the limit rate of profit is unobservable, following Bain (1956), assume that there are $J > 0$ existing entry barriers that condition the ability of incumbents to engage in pricing/output that deters new entrants linearly as $\pi_i^* = \alpha_o + \sum_{j=1}^{J} \alpha_j B_{ij}$, where B_{ij} is entry barrier j in market/industry i, with marginal effects on the limit rate of profit given by and α_j, and α_o is a constant. Given $\pi_i^* = \alpha_o + \sum_{j=1}^{J} \alpha_j B_{ij}$, it follows that in a market where incumbents are at least monopolistically competitive, but not monopoly, $\partial E_i / \partial \pi_i = \theta > 0$, $\partial E_i / \partial B_{ij} < 0$, or new firm entry increases with respect to increases in expected profit, and decreases with respect to increases in entry barriers.

The implications of the simple limit profit model of entry suggest an empirical strategy for identifying the effects of inequality-based entry barriers on the entry of female-owned firms in Nigerian goods/service markets that are at least monopolistically competitive—but not monopoly. Given measurements on the entry of female-owned firms and inequality-based entry barriers that impose costs on new entrants relative to incumbents, the effects of these type of entry barriers on the market entry of female-owned firms in Nigeria can be identified empirically.

III. Data

To estimate the parameters of an empirical Limit profit model of entry for female-owned firms, we use data from the 2010 World Enterprise Survey for Nigeria (WES).[3] The WES, a firm-level survey, has been administered by the World Bank since 2002. Administered to business owners and top managers of formal registered firms with 5 or more employees in face-to-face interviews, the WES captures data from respondents on firm characteristics, gender participation, access to finance, annual sales, costs of inputs/labor, workforce

[2] For the empirical evidence in support of the implications of a limit profit model of entry see Arauzo-Carod and Segarra-Blasco (2005), Feinberg (2010), Khemani and Shapiro (1986), and Price (1995).
[3] WES data are available at: http://www.enterprisesurveys.org/Data

composition, bribery, licensing, infrastructure, trade, crime, competition, capacity utilization, land and permits, taxation, informality, business-government relations, innovation and technology, and performance measures. Over 90 percent of the questions objectively measure characteristics of a country's business environment. The remaining survey questions capture the respondent's opinion on the obstacles to firm growth and performance—which we exploit to construct inequality based firm entry barriers that can potentially deter the entry of female-owned firms.

The sampling methodology for the WES is stratified random sampling, and the strata are firm size, industry/sector, and geographic region within a country. Firm size levels are 5 - 19 (small), 20 - 99 (medium), and firms with 100+ employees (large-sized firms)—which are oversampled. Industry/sector categories are typically manufacturing, retail, and other services, and for larger economies additional sub-industries/sectors are selected as additional strata on the basis of employment, value-added, and total number of establishments figures. Given the different probabilities of selection across the strata, WES provides sampling weights—which enable consistent estimation of population parameters of interest.

Given that the core variable of interest is the market entry of female-owned firms in Nigeria, we use the reported number of female firm-owners in a particular city-industry cluster as our dependent variable. While this count variable is not necessarily a measure of new firm entry, it is an approximation to new firm entry, as the number of firms in a city-industry cluster will be proportional to the number of new entrants at a point in time—and the data are cross-sectional across city-industry pairings. We measure female-owned firm counts at the city-industry cluster level to control for any unobservables associated with the tendency of firms to be attracted to the agglomeration and localization benefits of particular cities and industries (Barbosa, Guimaraes and Woodward, 2004; Belleflamme, Picard and Thisse, 2000; Glaeser et.al, 1992).

Given that the WES is a cross-section, rendering it impossible to use a measure of lagged incumbent characteristics, we use average profit of firms in each city-industry cluster as a measure of expected profit. We construct four measures of entry barriers. The first one is a measure of incumbent firm size, which in a limit profit model captures the ability of an incumbent firm to deter entry as a result of cost advantages. Our measure of incumbent firm size—SCALE—is the percentage of firms in a city-industry cluster with 100 or more employees.

The remaining three entry barriers are based on the respondent's provided opinion on particular obstacles to firm growth and performance. In particular we measure inequality-based entry barriers based on the percentage

of incumbents in a city-industry cluster who reported that the most serious obstacle to firm growth/performance is access to finance (FINANCE BARRIER), access to land (LAND BARRIER), and securing business licenses/permits (REGULATORY BARRIER). To the extent that relatives to males, these barriers are higher for females, they constitute inequality-based entry barriers that deter entry as they are a source of relative cost advantages for incumbents.

IV. Results

Table 1 reports a covariate summary. On average across the 179 city-industry clusters, the average number of female-owned firms is less than one, underscoring a severe underrepresentation of female-owned formal firms in Nigeria. Among the measured entry barriers, the highest average value is for access to Finance, suggesting that securing financing is relatively difficult for all formal firms in Nigeria. Regulatory barriers appear to be low relative to other entry barriers, suggesting that the regulatory burden for formal firms, on average is relatively low in Nigeria.

Our strategy for estimating the parameters of an empirical Limit profit model of female-owned firm entry recognizes that the number of female-owned firms in a city-industry cluster is discrete, integer-valued, and constitutes count data. As such, we assume that the number of female-owned firms are realizations from either a Poisson, or, if there is unobserved heterogeneity, a Negative Binomial count distribution. We specify and estimate the parameters of relevant Poisson and Negative Binomial regression specifications of a Limit profit model of female-owned firm entry, where the estimated parameters measure the effects of exogenous entry barrier variables on λ_i—the expected value of the number of female-owned firms in a city-industry cluster.[4]

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[4] A Poisson regression model (Cameron and Trivedi, 1998) is formulated by specifying for integer-valued measures of female-owned firms E_i in city-industry cluster i, the conditional mean λ_i as :

$$ln\lambda_i = \beta'\Theta$$

where β is a coefficient vector, and Θ is a vector of exogenous expected profit and entry barrier measures that determine the expected value of the number of female-owned firms E_i in the ith city-industry cluster. The log-likelihood function L(β) has a gradient and Hessian given by:

$$\frac{\partial L(\beta)}{\partial \beta} = \sum[\Theta'(E_i - e^{\beta'\Theta})] = 0$$

Table 2 reports Poisson and Negative parameter estimates of the Limit profit model of female-owned firm entry in Nigeria.[5] As there are a preponderance of zero female-owned firms across the city-industry cluster groupings in the sample, the probability of zero female-owned firms in a given city-industry cluster may be too high to be captured adequately by simple Poisson and Negative Binomial specifications.[6] As such, we also report the parameters of Zero-inflated Poisson (Lambert, 1992) and Negative Binomial (Mullahy, 1986) specifications, which explicitly account for the process determining the zero counts.

The Zero-inflated specifications are potentially informative in their own right. As they account for the process determining zero counts, they can inform how the market entry of female-owned firm is absolutely deterred by gender inequality, as captured in the inequality-based entry barriers. As for the adequacy of the specifications reported, Table 2 also reports the value of the Akaike Information Criterion (Akaike, 1998). Explicit hypothesis testing on the implied restrictions of each specification estimated, do not inform on how well the estimated model approximates the true model—which is arguably the ultimate goal of statistical inference. The Akaike Information Criterion (AIC) is a measure of the information discrepancy between the

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$$\frac{\partial^2 L(\beta)}{\partial\beta\partial\beta'} = \sum[-(E_i' E_i)e^{\beta'\Theta})] < 0$$

Equating the gradient to zero solves for β, and the negativity of the Hessian ensures a global maximum of the log-likelihood estimator of the coefficients in β.

As a Poisson specification assumes there is no unobserved heterogeneity, the mean and variance of λ are identical. Given the possibility of unobserved heterogeneity, the Poisson model can be modified as a Negative Binomial (Cameron and Trivedi, 1998) where the specification of λ is:

$$ln\lambda_i = \beta'\Theta + \varepsilon_i$$

where ε_i reflects unobserved heterogeneity causing the mean and variance of λ to differ.

[5] All estimates are weighted with the cross-product of the size, region and establishment stratum weights, and the standard errors are clustered on city-industry groupings to control for the unobservables associated with localization and agglomeration.

[6] In the sample, approximately 74 percent of the city-industry clusters have zero female-owned firms. This preponderance of zero counts could mimic overdispersion—different values for the mean and variance of λ_i—inducing false selection of a Negative Binomial specification as a result of failing to account for the process determining the zero counts. In a zero-inflated count specification, the realizations come from two regimes. In one regime the outcome is always zero, while in the other it is not always zero. Let ω_i be the probability that a realization has a zero outcome, then for a Poisson distribution, the mean is $(1 - \omega_i)\beta'\Theta$, where $\omega_i = [\beta'\Theta_d]/[1 + \beta'\Theta_d]$, is a Logit specification, and Θ and Θ_d could be identical. A Zero-inflated Negative Binomial specification simply adds a stochastic error term to the specification for the conditional mean.

estimated model and the true population model. The smaller the AIC for an estimated model, the lower is the discrepancy between it and the true population model.

Given the AIC values across the estimated specifications of the Limit profit model of female-owned firm entry in Table 2, the minimum value is achieved for the Zero-Inflated Poisson specification, suggesting its adequacy relative to the other specifications. Consistent with a Limit profit model of entry, the statistically significant parameter estimates suggest that in Nigeria, the entry of female-owned firms in Nigeria increases with expected profitability, and decreases with respect to increases in entry barriers associated with securing land and licenses/business permits. While the sign on the entry barrier associated with securing financing is statistically significant, the sign is positive, which runs counter to the expectation of the theory underlying the Limit profit model of entry. However, for the Zero inflation parameters from the Logit determining the zero count regime, the barriers associated with securing financing conforms, as increases in entry barriers associated with securing financing have a statistically significant and positive effect on the probability that there will be zero female-owned firms entering the market. In general, all the zero-inflation parameters are statistically significant and cohere with the theory of the Limit profit model. This suggests that in Nigeria, gender inequality in access to financing, land, and in the ability to secure licenses/permits results appears to absolutely deter the market entry of female-owned firms.

The parameter estimates of the effects inequality-related entry barriers from Zero-inflated Poisson specification are also of practical significance. With respect to the regulatory barriers associated with securing land, the parameter estimate has an elasticity, evaluated at the means of all regressors of approximately 8 percent. This implies that if on average across all 179 city-industry clusters, barriers to securing land fell by 50 percent, approximately 5 new female-owned firms would be induced to enter the market, producing additional net output worth approximately 36.7 million Naira—which is equal to approximately $227,540 as of June 28, 2012.[7] As there are a total of 47 female-owned firms in the sample, the entry of 5 constitutes an approximately 11 percent increase in the number of female-owned firms. Similar results follow from considering a reduction in the entry barriers from the Zero-inflated parameter estimates, and underscore how practically significant reductions in the entry barriers faced by female-owned firms are as the majority of city-industry clusters have no female-owned firms at all.

V. Conclusion

[7] The value of the additional net output follows from multiplying average firm profit reported in Table 2 by the additional number of female-owned firms that would enter the market as a result of a 50 percent reduction in barriers to securing land.

This paper, considered the role of inequality-based entry barriers on the formation of female-owned firms in Nigeria. Parameter estimates from count data specifications of the number of female-owned firms across city-clusters revealed that access to financing, land, and licenses/permits absolutely deter the entry of female-owned firms, as these entry barriers are proportional to the the probability of observing no female-owned firms. In general, barriers to securing land constrain the entry of female-owned firms beyond the process determining absolute entry deterrence. Our results suggest that the market entry and underrepresentation of females among firm-owners and entrepreneurs in Nigeria is, at least in part, caused by gender inequality in general, as the entry barriers capture the access of actual and/or potential female-own firms to finance, land, and licenses/permits required to operate. As firm formation is a potential driver of economic growth in Sub-Saharan Africa, gender inequality in the formation of firms could constrain economic growth, as African economies lose the output that could be produced by female-owned firms due to the entry deterrent effects on inequality-based entry barriers. Our findings suggest that the reduction of gender inequality in Sub-Saharan Africa would result in more female firm-owners and entrepreneurs which would catalyze economic growth.

Table 1
Covariate Summary

Covariate	Definition [a]	$\overline{X}$	$\hat{\sigma}$	N
Number of Female-owned Firms in City-Industry	Number of firm owners in cluster who indicated they are female (question = ng_b3f)	.681	1.70	179
Cluster Average Year 2008 Cluster Profit In Naira (EXPECTED PROFIT)	Total Revenue - Total Cost: Derived from the residual of firm total revenue(question = l1b) and the cost of land (question = ng_f1a4b), cost of finance (question = ng_f1a122), cost of raw materials and intermediate goods (question = l2a), cost of labor (question = l2b), depreciation (question = l2b), and rental cost of land, buildings, equipment and furniture (question = l2d)	73400000	295000000	179
Percentage of Firms in Cluster With or more employees (SCALE)	Binary variable equal to 1 if the firm has 100 or more 100 or more Employees(question = sampsize)	.058	.167	179
Percentage of Cluster Firm-Owners who report that access to finance is the most serious obstacle (FINANCE BARRIER)	Binary variable equal to 1 if a firm-owner indicates that access to finance is the most serious obstacle (question = flb1)	.188	.269	179
Percentage of Cluster Firm-Owners who report that access to land is the most serious obstacle (LAND BARRIER)	Binary variable equal to 1 if a firm-owner indicates that access to land is the most serious obstacle (question = flb1)	.032	.116	179
Percentage of Cluster Firm-Owners who report that securing licenses and/or business permits is the most serious obstacle (REGULATORY BARRIER)	Binary variable equal to 1 if a firm-owner indicates that securing licenses and/or business permits is the most serious obstacle(question = flb1)	.014	.050	179

Source: 2010 World Enterprise Surveys, (http://www.enterprisesurveys.org/Data)
Notes:

[a] The question indicator refers to the particular question in the 2010 World Enterprise Surveys from which the covariate is derived.

$\overline{X}$, $\hat{\sigma}$, and N denote the mean, standard deviation, and number of city-industry cluster observations respectively.

Table 2
Count Data Parameter Estimates:
Entry Barriers and The Number of Female-owned Firms In Nigeria

Specification:	Poisson	Negative Binomial	Zero-Inflated Poisson	Zero-Inflated Negative Binomial
Regressand: Number of Female-owned firms in city-industry cluster				
Regressors:				
CONSTANT	.931	.802	.959	76.64
	(.097) [a]	(.112) [a]	(.051) [a]	(37.57) [b]
EXPECTED PROFIT	-5.15e-10	1.79e-09	1.07e-08	3.33e-09
	(1.87e-09)	(4.31e-09)	(5.16e-09) [b]	(2.07e-08)
SCALE	-9.66	-9.26	-18.46	21.62
	(3.95) [b]	(5.50) [c]	(10.0) [c]	(10.28) [b]
FINANCE BARRIER	-4.91	-3.51	2.09	42.55
	(2.86) [c]	(3.65)	(1.04) [b]	(22.37) [c]
LAND BARRIER	-18.01	-16.98	-4.11	5.32
	(10.51) [c]	(10.0) [c]	(4.87)	(11.36)
REGULATORY BARRIER	-5.32	-7.65	-3.56	-120.53
	(1.74) [a]	(2.40) [a]	(.831) [a]	(59.03) [b]
Zero Inflation parameters: *Regressand*: Binary indicator for Zero Female-owned firms In Cluster				
Regressors:				
CONSTANT			-3.33	.597
			(.444) [a]	(.234) [b]
EXPECTED PROFIT			5.25e-08	1.43e-09
			(6.08e-09) [a]	(1.70e-09)
SCALE			-64.09	1.50
			(9.89) [a]	(1.96)
FINANCE BARRIER			20.37	2.30
			(3.27) [a]	(.914) [b]
LAND BARRIER			37.95	.594
			(12.40) [a]	(1.52)
REGULATORY BARRIER			6.15	-4.26
			(3.60) [c]	(3.11)
Number of Observations	179	179	179	179
Akaike Information Criterion	889471.5	996259.5	723267.1	908065.1

Notes:
Clustered standard errors in parentheses.

[a] Significant at the .01 level

[b] Significant at the .05 level

[c] Significant at the .10 level

References

Akaike, Hirotugu. 1998. "Information Theory and an Extension of the Maximum Likelihood Principle," in *Selected Papers of Hirotugu Akaike*, pp. 199- 213, Springer, New York NY.

Anand, Sudhir., and Amartya Sen. 2000. "The Income Component of the Human Development Index," *Journal of Human Development* 1: pp. 83 - 106.

Arauzo-Carod, Josep-Maria, and Agustí Segarra-Blasco. 2005. "The Determinants of Entry are not Independent of Start-up Size: Some Evidence From Spanish Manufacturing," *Review of Industrial Organization*, 27: pp. 147 - 165.

Asiedu, Elizabeth., Isaac Kalonda-Kanyama, Leonce Ndikumana, and Akwasi Nti-Addae. 2013. "Access to Credit by Firms in Sub-Saharan Africa: How Relevant Is Gender?," *American Economic Review* 103: pp. 293 – 97

.

Audretsch, David B. 2007. "Entrepreneurship Capital and Economic Growth," *Oxford Review of Economic Policy*, 23: pp. 63 - 78.

Bain Joe, S. 1956. *Barriers to New Competition*." Harvard University Press, Cambridge MA.

Baliamoune-Lutz, Mina., and Mark McGillivray. 2009. "Does Gender Inequality Reduce Growth in Sub-Saharan African and Arab Countries?" *African Development Review* 21: pp. 224 - 242.

Barbosa, Natalia., Paulo Guimaraes, and Douglas Woodward. 2004. "Foreign Firm Entry in an Open Economy: The Case of Portugal," *Applied Economics*, 36: pp. 465 - 472.

Belleflamme, Paul., Pierre Picard, and Jacques-François Thisse. 2000. "An Economic Theory of Regional Clusters," *Journal of Urban Economics*, 48: pp. 158 - 184.

Cameron, A. Colin and Pravin K. Trivedi. 1998. *Regression Analysis of Count Data*, Cambridge University Press, Cambridge, UK.

Elu, Juliet U. 2013. "NEA Presidential Address: Gender Inequality and Human Development in Sub-Saharan Africa," *Review of Black Political Economy*, 40: pp. 105 - 113.

Feinberg, Robert M. 2010. "Price Impacts of Small-Firm Entry in US Manufacturing," *Eastern Economic Journal*. 36: pp. 58 - 69.

Glaeser, Edward L., Hedi D. Kallal, José A. Scheinkman, and Andrei Shleifer. 1992. "Growth in Cities," *Journal of Political Economy*, 100: pp. 1126 - 1152.

Hallward-Driemeier, Mary. 2011. "Strengthening Women's Entrepreneurship," *The Africa Competitiveness Report*, pp. 67 - 88, World Bank, Washington DC.

Khemani, R. S., and Daniel M. Shapiro. 1986. "The Determinants of New Plant Entry in Canada," *Applied Economics*, 18: pp. 1243 - 1257.

Koellinger, Philipp D., and A. Roy Thurik. 2012. “Entrepreneurship and the Business Cycle," *Review of Economics and Statistics*, 94: pp. 1143 - 1156.

Lambert, Diane. 1992. “Zero-inflated Poisson Regression With An Application To Defects in Manufacturing," *Technometrics,* 34: pp. 1 - 14.

McMillan, John., and Christopher Woodruff. 2002. “The Central Role of Entrepreneurs in Transition Economies," *Journal of Economic Perspectives*, 16: pp. 153 - 170.

Mullahy. John. 1986. “Specification and Testing of Some Modified Count Data Models," *Journal of Econometrics*, 33: pp. 341 - 365.

Orr, Dale. 1974. “The Determinants of Entry: A Study of the Canadian Manufacturing Industries," *Review of Economics and Statistics*, 56: pp. 58 - 66.

Price, Gregory N. 1995. “The Determinants of Entry for Black-Owned Commercial Banks," *Quarterly Review of Economics and Finance*, 35: pp. 289 - 303.

British Council of Nigeria. 2012. “ Gender in Nigeria Report 2012: Improving the Lives of Girls and Women in Nigeria, Issues, Policies, Action, 2nd edition, Abuja, NG.