

Access to Credit and Firm Performance from a Gender Perspective: Evidence from Sub-Saharan Africa

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Overview

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This Paper

We examine whether enterprises in Sub-Saharan Africa led by female senior management have equal access to credit and outperform organisations with males in top management roles.



Problem Statement

- Access to finance is critical for a firm's growth but challenges exist (Duflo 2008; Beck et al., 2015).
- Enterprise access to finance is further aggravated based on gender. (SDGs). –(Aterido et al., 2013; Presbitero et al., 2014).
- Female entrepreneurs tend to pursue businesses that requires less financing (Demirguc-Kunt et al., 2013b).

Thus, the low performance of female-owned businesses could be linked to gender inequalities in obtaining financing.



Motivation and Gaps

- Beck et al. (2005) show that access to credit is important for businesses to thrive and is becoming increasingly relevant to policymakers.
- Previous research, on the other hand, has primarily focused on gender bias in accessing finance.
- Gender variable selection. Most studies use the gender of the firm owners or managers.
- Entrepreneurial performance is poorly understood in the context of developing countries by gender mostly due to data availability and thus are.



Contributions

- The moderating impact of the owner/ manager effect in determining a firm's access to finance and firm productivity with a focus on SSA.
- The study centres on less developed and developing economies because cultural, institutional, and economic levels are particularly relevant in identifying the association between female entrepreneurship, access to financing, and firm performance.
- The multilevel model incorporate both fixed and random effects and allows for the clustering nature of the WBES.



Data and Model Specification

Data is sourced from the World Bank Enterprise Surveys (WBES) AND World Development Indicators (WDI) ;

- Female Top Manager
- Female Owner
- Access to credit
- Annual Sales
- Top manager experience
- Employees
- Sales Percentage
- Firm Age



Data and Model Specification

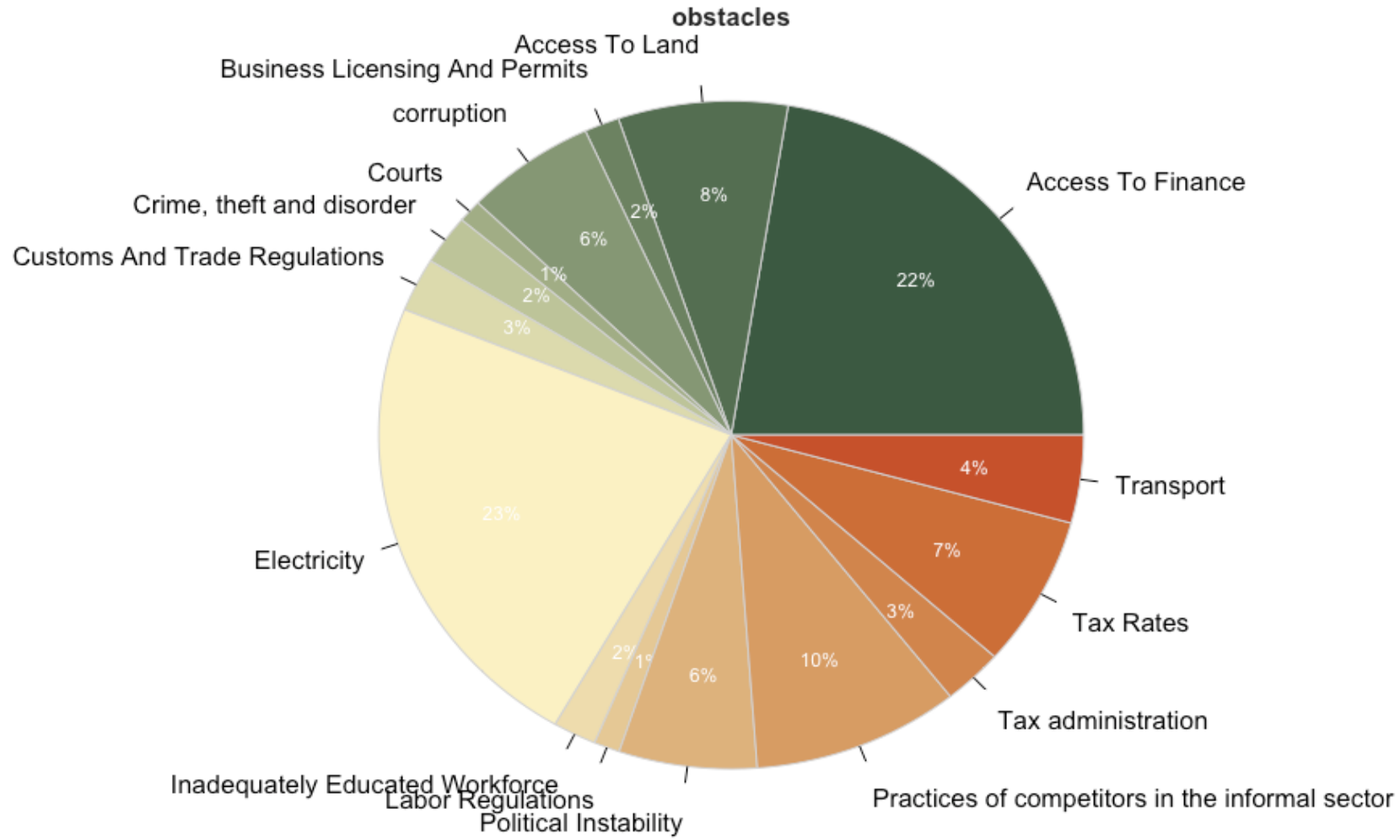


Figure: Enterprise General Obstacles in SSA (Source: WBES)



Data and Model Specification

Access to a line of credit/loan

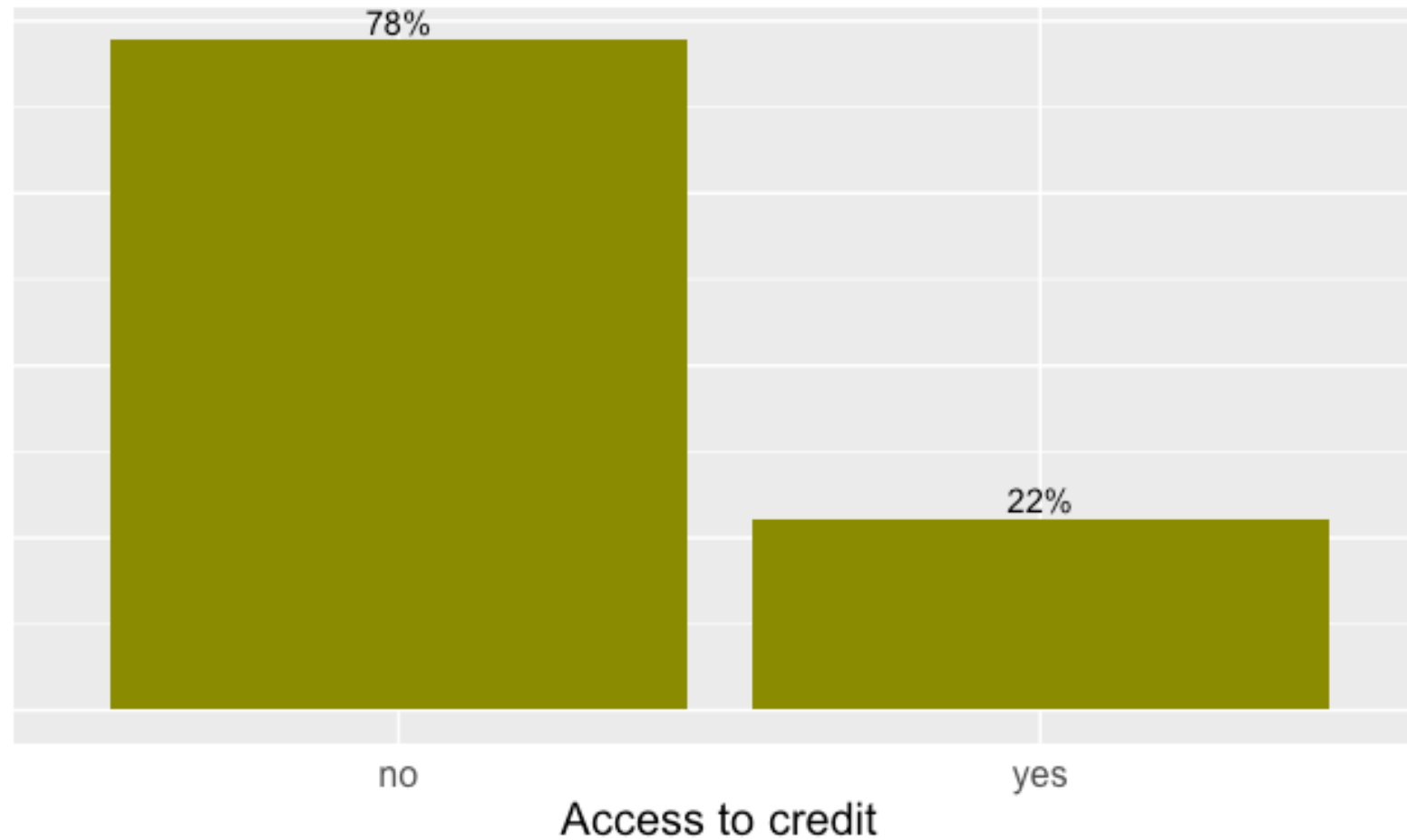


Figure: Enterprise Access to credit in SSA (Source: author)



Data and Model Specification

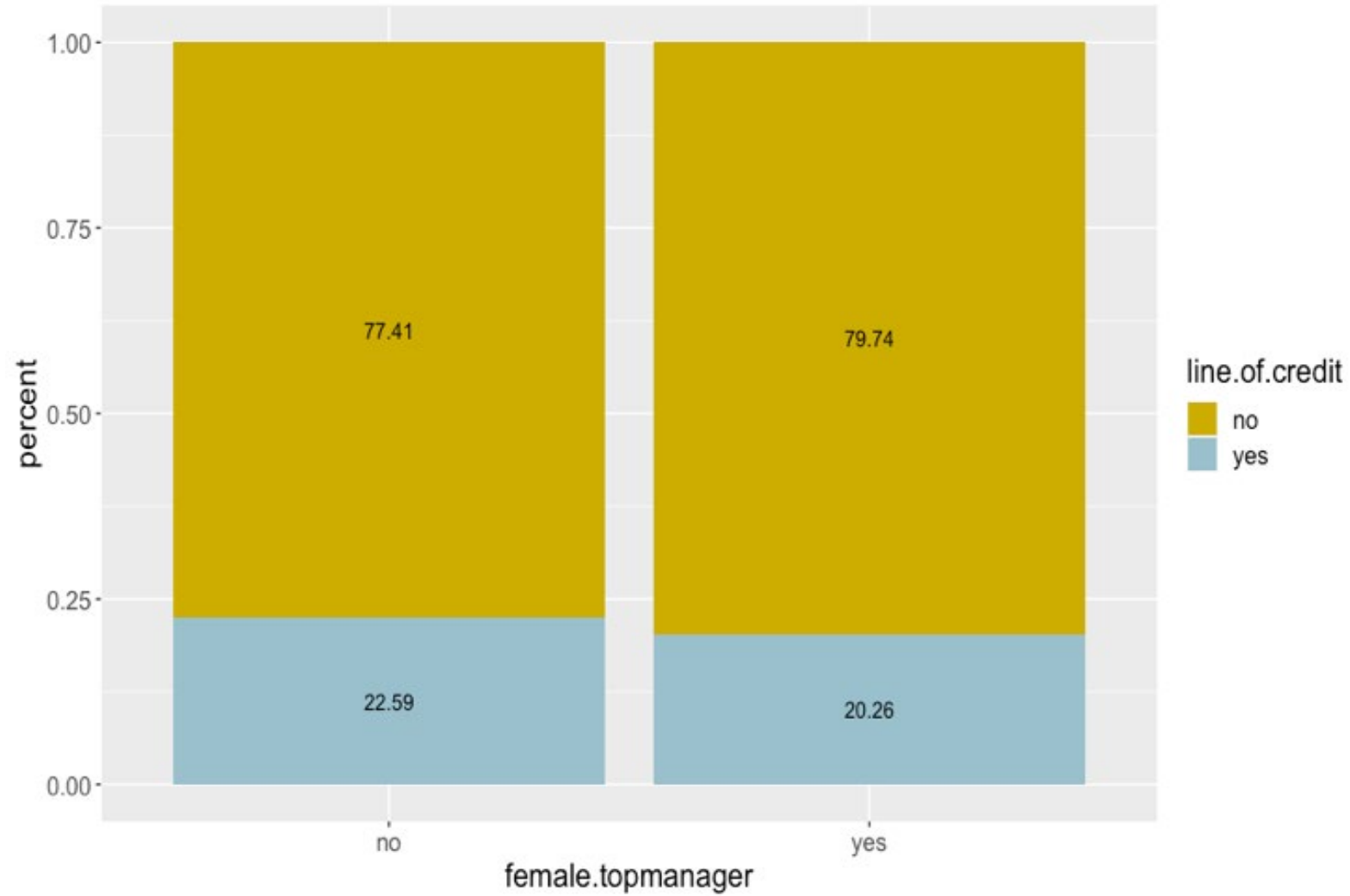


Figure: Enterprise Access to credit in SSA (Source: author)



Data and Model Specification

Enterprise Size

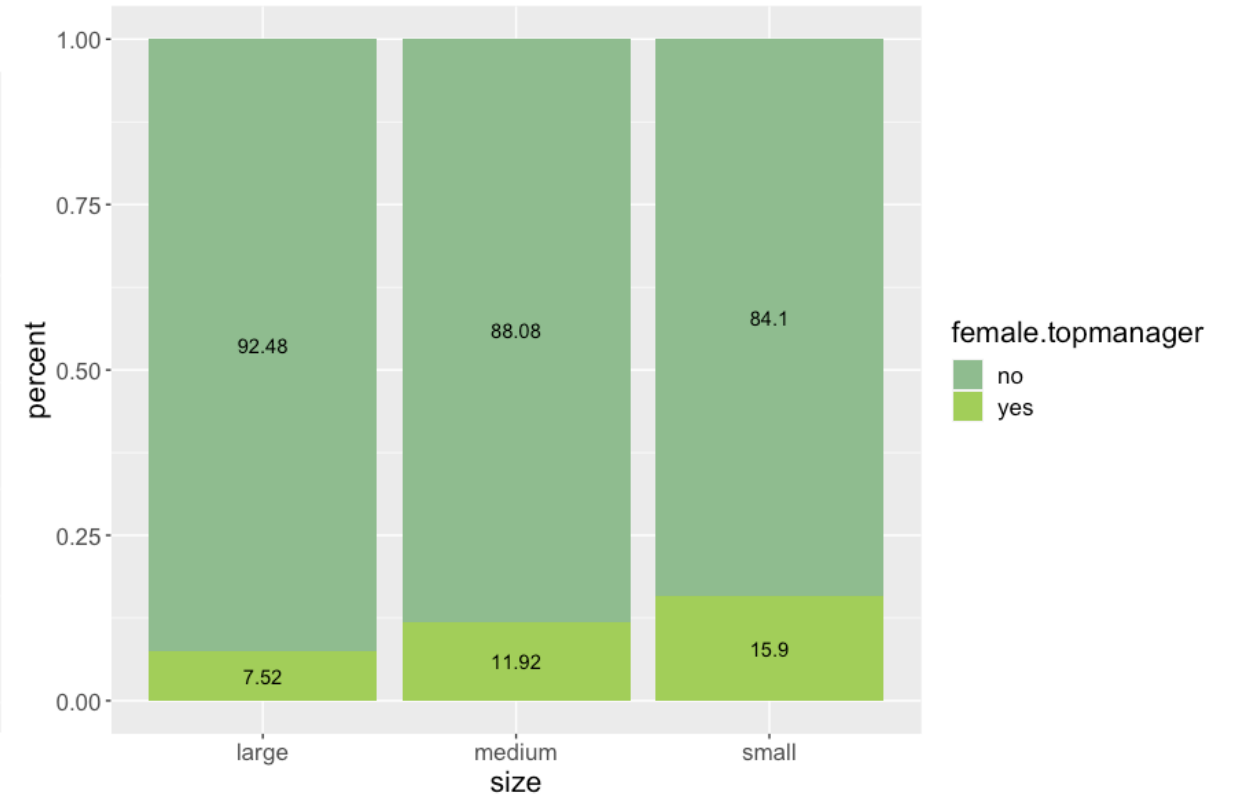
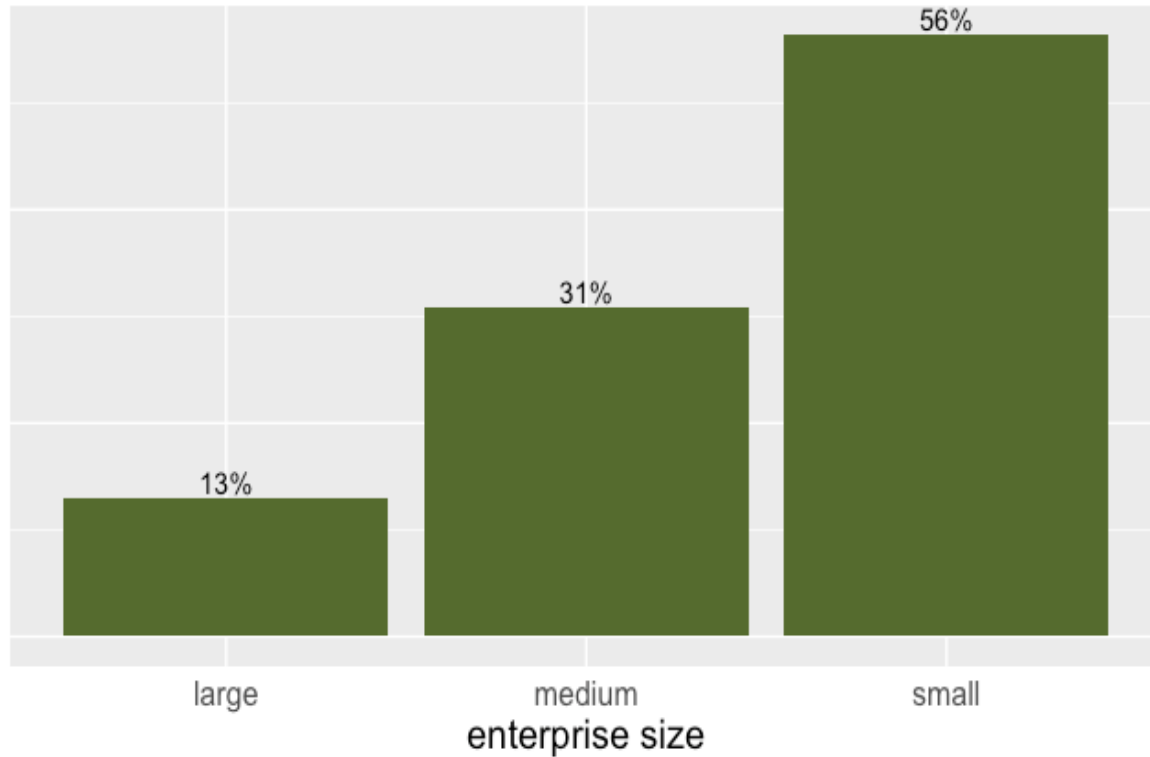


Figure: Enterprise Size by gender of top manager in SSA (Source: author)



Data and Model Specification

$$\ln(p / 1 - p) = \alpha + \beta(F_{icst}) + \rho(FM_{icst}) + \delta(X_{icst}) + FM_{icst} * F_{icst} + \gamma(S_{icst}) + \theta(I_s) + \varepsilon_{icst} \quad (1)$$

$$\ln\left(\frac{sales}{ES}\right) = \alpha + \beta(F_{icst}) + \rho(FM_{icst}) + \eta(AC_{icst}) + \tau(F_{icst} * FM_{icst}) + \delta(X_{icst}) + \gamma(S_{ct}) + \theta(I_s) + \varepsilon_{icst} \quad (2)$$



Results (Model 1) – Gender and Credit

	(1)	(2)	(3)	(4)
intercept	-74.68 (0.22)	-88.10 (0.82)	-88.96 (0.83)	-88.17 (0.83)
Female top manager (ftm)	-23.41 (0.11)*	-14.80 (0.11)	15.52 (0.17)	-12.64 (0.12)
Female Presence (fp)	65.94 (0.08)***	52.07 (0.08)***	62.48 (0.08)***	52.14 (0.08)***
Employee		0.02 (0.00)	0.02 (0.00)	0.02 (0.00)
Firm age		7.73 (0.03)**	7.65 (0.03)**	7.72 (0.02)**
Top manager Experience(>10 yrs)		36.28 (0.09)***	36.67 (0.09)***	36.16 (0.09)***
Exports		95.68 (0.08)***	96.12 (0.09)***	98.94 (0.10)***
external auditors		213.59 (0.09)***	213.17 (0.08)***	213.45 (0.08)***
GDP per capita		-11.95 (0.12)	-11.34 (0.12)	-11.99 (0.12)
Corruption		1.63 (0.00)***	1.62 (0.00)***	1.63 (0.00)***
ftm*fp			-38.70 (0.22)*	
Ftm*export				-11.62 (0.26)

Results (Model 2) – Gender and Firm Productivity

	(1) Lab Prod	(2) Lab Prod	(3) TFP	(4) TFP	(5) TFP
intercept	12.16 (0.58)	12.15 (0.58)	11.43 (0.46)	13.53 (0.42)	13.56 (0.42)
Female top manager (ftm)	-5.84 (0.07)	1.08 (0.08)	-0.54 (0.10)***	-0.45 (0.08)***	-0.38 (0.09)***
Female Presence (fp)	-1.69 (0.05)	-1.92 (0.05)	-0.29 (0.07)***	0.25 (0.06)***	0.25 (0.06)***
Access to credit	62.10 (0.06)***	69.51 (0.06)***	1.27 (0.08)***	1.10 (0.07)***	1.15 (0.07)***
Firm age	7.97 (0.02)***	7.97 (0.02)***	0.06 (0.02) **	0.24 (0.02)***	0.24 (0.02)***
employee	-1.40 (0.00)***	-1.40 (0.00)***	0.01 (0.00).	0.01 (0.00)***	0.01 (0.00)***
Ln capital			0.06 (0.02)*	-0.03 (0.02)	-0.03 (0.02)
Ln materials			0.19 (0.01)***	0.16 (0.01)***	0.16 (0.01)***
Exports	30.97 (0.06)***	30.74 (0.06)***	0.96 (0.10)***	0.76 (0.07)***	0.76 (0.07)***
Corruption	4.84 (0.00)***	4.84 (0.00)***	0.01 (0.00)***	0.04 (0.01)***	0.04 (0.01)***
Ftm*credit		-28.77 (0.34)*			-0.37 (0.18)*

Results (Model 1) – Intra Class correlation (ICC) Gender and credit

Random Effects	Variance	Standard Deviation	ICC
Residual (σ^2)	3.29		
Firms	0.76	0.83	0.15
Country	0.71	0.80	0.14
Time(year)	0.16	0.38	0.03
Total	4.92		0.32

Results (Model 2) – Intra Class correlation (ICC) Gender and Firm Productivity

Random Effects	Variance	Standard Deviation	ICC
Residual (σ^2)	2.66	1.63	
Firms	0.60	0.77	0.06
country	5.74	2.40	0.57
Time(year)	1.13	1.06	0.11
Total	10.13		0.74

Results of Propensity Score Matching for treatment group

Female topmanager	-0.24 (0.11)***
Original number of observations.	6680
Original number of treated observations	908
Matched number of observations	908



Discussion and Conclusion

- The study reveals a gender gap in enterprise access to finance and firm performance in SSA.
- A fair credit allocation among entrepreneurs, regardless of gender, should be ensured by financial institutions.
- Governments and policy makers in SSA countries should invest in education, expand the use of fintech and generate more employment schemes to help improve income levels and reduce poverty level, all these are important factors for financial inclusiveness.



Discussion and Conclusion

- Governments can increase women property rights, their ability to own assets and by addressing inheritance issues. These interventions would empower women to use these assets as leverage for securing credit.
- Financial institutions should design suitable and affordable financial products and services for women.



THANK YOU



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- **To test the font, stand back six feet from the monitor and see if you can read the slide. Use font size 18 or larger.**
- **Select sans-serif fonts such as Arial or Helvetica. Avoid serif fonts such as Times New Roman or Palatino as they are sometimes more difficult to read.**
- **Limit punctuation and avoid putting words in all-capital letters. Empty space on the slide will enhance readability.**
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- **Do not read the presentations. The content of your slides is for the audience, not for the presenter.**
- **Do not speak to your slides. Many presenters face their presentation onscreen rather than their audience.**
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- **Ensure the content of the presentation aligns with your manuscript.**

