The Impact Of Multinational Corporations On Gender Inequality in Sub-Saharan Africa

Chervany, Connor and Kirk, Kobe

ECON399: Trade, Development, and Gender

May 6, 2025

ABSTRACT

Purpose

The purpose of our study is to examine the impact of foreign economic activity on gender inequality, specifically in developing countries. Our study focuses on Sub-Saharan African countries, from the time period of 2011 to 2020. The study looks to answer the question of how the presence of multinational corporations (MNCs) impacts the Gender Inequality Index (GII).

Design/Methodology/Approach

This study uses a time- and country-fixed effects approach to measure the relationship between MNCs and gender inequality. The data is sourced from the Bureau of Economic Analysis (BEA), Word Bank Indicators (WBI), and United Nations Development Programme (UNDP).

Findings

We find that an increased presence of MNCs has a negative impact on GII, indicating that MNCs increase gender equality. While the results only hold true with the number of MNC affiliates as the independent variable, and fail to remain significant with either total MNC assets or net foreign direct investment (FDI) as the independent variable, we find that computational and data availability limitations are the likely causes of this.

Contribution To The Literature

While there is much literature on the impact of gender inequality on quality-of-life measures, or on the impact of MNCs on income inequality or other forms of inequality, there have not been any studies on the impact of MNCs on gender inequality. This paper looks to contribute by filling that gap and providing empirical evidence for the strong theoretical link between MNCs and GII.

INTRODUCTION

Multinational corporations (MNCs) use their power to shape both labor market operations and economic systems which function in Sub-Saharan Africa. Foreign direct investment (FDI) from MNCs to Sub-Saharan Africa results in expanded employment opportunities, modern technological advancements, and international business activities. MNCs generate gender inequality through complex systems which operate simultaneously. The ongoing debate about MNCs exists because these companies advance gender inclusion through international labor standards and female economic participation, but they continue to support male-dominated industries and restrict female leadership opportunities.

Gender inequality in Sub-Saharan Africa exists because of institutional frameworks combined with historical and cultural factors. Women in this region face multiple barriers which block their entry into the existing labor market competition against men. According to (Moodley et al., 2019), the efforts to close these gender gaps have resulted in limited progress, because Sub-Saharan Africa could require over one hundred years to reach gender parity. MNCs operate as major worldwide economic entities which determine the pace of gender equality progress. The gender dynamics in host countries transform because multinational corporations implement their hiring practices, wage structures, and corporate policies. These factors determine female opportunity in formal and informal sectors.

The transfer of gender policies between multinational corporations and local economies functions as a vital aspect. The implementation of advanced gender policies by multinational corporations through equal pay requirements and discrimination protection creates new performance standards which domestic businesses must adopt. These policies achieve their success based on the implementation approach of the company and the existing local regulations. MNCs operating in Sub-Saharan Africa create labor segmentation because they place women in basic roles, but men hold most of the lucrative managerial positions.

In this study, we explore the distributive effect of MNCs on gender inequality for the period 2011-2020 in Sub-Saharan Africa. Therefore, the main goal of this paper is to assess the effect of MNCs on gender inequality in Sub-Saharan African countries, and to attempt to answer the following research question:

Q. How do multinational companies affect gender inequality in Sub-Saharan African countries?

We hypothesize that the increased presence of MNCs in Sub-Saharan African countries should decrease GII, as MNCs should present new economic opportunities for women.

The remainder of this paper includes: a literature review of previous empirical research on the relationship between MNCs and gender inequality, as well as previous research on gender inequality in Sub-Saharan Africa; a description of the data; a description of the empirical methods used and their results; and finally a conclusion.

LITERATURE REVIEW

The connection between gender inequality and multinational corporations is important to understand because it determines how to solve ongoing poverty and economic inequality issues in developing regions. The research in this literature review examines how gender-based exclusion and institutional frameworks interact with global economic forces to determine development outcomes. Multiple studies demonstrate that gender inequality creates obstacles for poverty reduction in Sub-Saharan Africa, while demonstrating that high-quality governance and inclusive policy reforms remain essential. Foreign investment from multinational corporations creates economic growth and employment opportunities, yet it intensifies gender inequality because of specific labor selection methods and unorganized institutional systems. The combined research provides a complete understanding of how gender inequality and institutional structures at both domestic and global levels affect economic development in different regional settings.

The research by Alamirew, Eshete, and Figari, (2019) investigates the relationship between gender inequality and governance systems, and their combined impact on poverty levels in Sub-Saharan Africa. The authors analyze 34 Sub-Saharan African countries through panel data to discover that economic deprivation worsens when gender inequality remains high because women face restricted access to education and employment. The research demonstrates that governance quality stands as a critical factor for poverty reduction because effective institutional frameworks together with accountability systems reduce economic inequalities. The research also shows that poor governance systems intensify gender discrimination effects which restrict women's economic involvement and development potential. The authors stress that economic development and poverty reduction require policy changes which improve institutional quality and support gender equality.

Onogwu, (2021) presents empirical evidence showing that gender inequality creates obstacles to economic development in Sub-Saharan Africa. The research shows that gender inequality through labor force participation, educational access, and economic representation reduces both productivity levels and economic integration. The study demonstrates that economic development benefits from gender parity which supports the need for policies that promote equal labor opportunities. The research also shows how trade openness and capital accumulation affect economic development, while multinational companies influence gender inequality through their impact on employment structures and wage disparities. The research provides essential understanding of how multinational companies either reduce or widen gender inequalities in Sub-Saharan Africa based on their recruitment methods and organizational policies.

Langdon, (1977) investigates the economic and political effects of MNC technology transfer in Africa with a focus on manufacturing sectors. The research demonstrates that MNCs bring modern production techniques to the region, yet these transfers strengthen economic dependence and market dominance instead of promoting broad technological adoption. According to Langdon, MNC subsidiaries use production technologies that were originally made for developed markets instead of modifying them for African environments, which restricts both job creation and local industry expansion. The research shows how technology transfer creates greater economic inequality because multinational operations primarily benefit elite groups who have direct connections to these operations, while blocking economic participation for other groups. The research findings about the impact of MNCs on labor markets have special importance for gender inequality studies in Sub-Saharan Africa because they indicate that MNCs create conditions which negatively affect women by maintaining occupational segregation and wage disparities.

Braha-Vokshí et al., (2021) investigates how multinational corporations affect economic inequality in the Western Balkans by showing that MNCs drive economic growth, but their effects surpass traditional growth metrics. The authors demonstrate that MNCs generate new job openings, but their wage preference for educated workers blocks less-skilled workers from economic advancement. The preference for skilled employees intensifies labor market segmentation which may increase the gap between different socioeconomic groups. The research shows that foreign investments transform local economies through skill-based stratification

which creates deeper inequality instead of reducing it. The authors propose education reform as a solution to address these disparities by improving workforce adaptability and closing the skill gap. The authors emphasize the requirement of labor market regulations which implement equitable employment policies to enable MNCs to develop inclusive economic growth that benefits all workers regardless of their education level or skills.

Sven and Suseno, (2022) use interviews with high-level employees in multinational corporations in South Korea to examine the potential role of these companies in implementing equality policies. Horak and Suseno analyze the mechanisms through which informal networks and institutions result in female social exclusion at South Korean multinational corporation subsidiaries, despite existing formal gender equality promotion policies. The research shows that yongo, an informal male-dominated network based on educational, familial and regional ties, restricts women from career advancement by blocking their access to necessary resources and opportunities. Korean women who cannot access these exclusive networks choose to join inmaek instead. The inmaek network functions as an open alternative to traditional informal networks, which enables professionals to build relationships. The effectiveness of gender diversity policies in MNCs remains restricted because informal workplace institutions and male-biased workplace dynamics continue to exist. The research demonstrates how corporate policies interact with established societal norms and challenges MNCs to function as gender inclusivity catalysts.

Braunstein, (2006) investigates the connection between foreign direct investment, development, and gender equity, and shows that the impact of FDI on gender inequality is highly context-dependent. Foreign investment has often been associated with an increase in women's employment in export-oriented industries, especially in semi-industrialized countries, but the long-term effects are more complex. The study shows that women are mainly employed in low-wage, labor-intensive sectors where MNCs can perpetuate gender inequalities through cost-sensitive production strategies. However, as industries upgrade, women are either replaced by more qualified men or are forced into subcontracted, less secure forms of employment. These dynamics indicate that while MNCs may provide short-term employment opportunities for women, they do not necessarily lead to long-term improvements in gender equity unless there are strong regulatory frameworks that promote inclusive labor policies.

This paper seeks to contribute to the literature by studying the direct link between MNCs and gender inequality. While much has been studied around MNCs impact on other types of

inequality, or gender inequality's impact on other facets of economics, there has been little empirical exploration of the connection between GII and MNCs. In establishing this link, we seek to contribute a meaningful analysis of the interconnectedness of the two.

DATA

Our empirical analysis includes panel data from 50 Sub-Saharan African countries. The data is a balanced panel of these 50 countries over the years 2011 to 2020. To check for the robustness of our results, we employ 3 different explanatory variables.

Our dependent variable is the Gender Inequality Index. It is generally used to represent the state of gender equality in a given country. A higher GII indicates lower levels of gender equality.

Our first explanatory variable is the number of US-based MNC affiliates in a given country. This is the chief variable we aim to measure. Our MNC affiliate data is sourced from the Bureau of Economic Analysis(BEA).

Our second explanatory variable is the total assets of MNCs in a country. This serves to check the robustness of the first explanatory variable, and also to answer a slightly different question, where the impact on gender inequality comes not from the number of MNC affiliates but rather the size of the MNC affiliates. Our MNC asset data is sourced from the BEA.

Our final explanatory variable is net foreign direct investment (FDI). FDI is often used as a proxy for MNC analysis, as it provides a picture of how much foreign countries are investing in a host country. This variable serves multiple purposes: One, to check for the robustness of our initial results, but also again to analyze our research question from a slightly different angle. Our FDI data is sourced from the World Bank Indicators (WBI).

For control variables, we model our regression after Braha-Vokshí's paper. While their paper focused on the impact of MNCs on income inequality (specifically the Gini coefficient and the Human Development Index), we believe it stands to reason that their controls should function similarly when being used to judge MNC impact on gender inequality instead of income inequality. There is also ample literature to support our choices of control variables. All of our control variables are sourced from the WBI.

To that end, we start our control variables with GDP per capita. In the literature, GDP per capita is believed to have an inverse relationship with GII, which is to say that as GDP per capita

increases the GII will decrease (indicating higher levels of gender equality). GDP per capita is a commonly used control variable in the literature.

Our next control variable is GDP growth rate. Similar to GDP per capita, the literature holds that GDP growth rate is inversely related to GII. GDP growth rate is also commonly used as a control when looking at gender inequality.

We also use tertiary school enrollment as a control variable. There are very strong theoretical reasons for the inclusion of this control, as more enrollment in higher education should lend itself to increased gender equality.

Another control variable we use is inflation. In literature and theory, inflation is expected to have a negative impact on gender equality (in other words, a positive relationship with the GII). Economic instability leads to increased inequality, and economic instability is very common among developing countries.

Our final control variable is a measure of trade openness. We define trade openness as imports and exports as a percentage of GDP, again following Braha-Vokshí's lead. In literature, trade openness is generally thought to have an inverse relationship with GII, as increased trade theoretically leads to both increased economic activity and increased flow of knowledge, both of which are believed to increase gender inequality.

In our regression models, we take logarithms of all control variables, as changes in GII are relatively very small compared to changes in our controls.

It's also important to note that some of the countries are missing data points, so the sample sizes of our regressions differ somewhat based on the availability of the data. There were 347 data points on MNC affiliates, but only 137 data points on MNC assets, as many asset observations went unreported or were missing. A summary table of the data is shown below:

Variable	Obs	Mean	Std. dev.	Min	Max
gii_	364	0.5659945	0.0745012	0.328	0.718
GDPpc	390	2015.073	2318.247	210.0081	11643.46
GDPgrowth	390	1.054251	4.024515	-22.31305	18.14005
Trade	350	65.18019	26.82149	9.955145	150.2086
Inf	385	9.112822	32.63092	-3.233389	557.2018
Enroll	252	11.01248	8.170123	0.85185	42.98787

Affiliates	347	21.24784	52.87669	0	285
FDI	372	-8.27e+08	2.44e+09	-2.51e+10	1.27e+10
ln_GDPpc	390	7.160977	0.8818712	5.347147	9.3625
ln_GDPgrowth	268	0.781898	0.9968524	-6.062084	2.898122
ln_Trade	350	4.090442	0.4299828	2.29809	5.012025
ln_Inf	361	1.527223	1.1385	-3.140415	6.322927
ln_Enroll	252	2.176657	0.6643493	-0.1603449	3.760918
Assets	137	9938.577	21436.89	1	114250

EMPIRICAL METHODS

In all of our estimations, we employ fixed-effects models. We initially planned to use both two-stage-least-squares models and fixed-effects models, but found that our instruments for our chief explanatory variables were weak. As such, we decided to work with strictly fixed-effects models. Our regression equation is as follows:

$$GII_{i,t} = \alpha_1 X_{i,t} + \alpha_k \ln Y_{i,t,k} + u_i + \delta_t + e_{i,t}$$

X represents our explanatory variable: either number of MNC affiliates, MNC assets, or net foreign direct investment. Y is our vector of control variables, all in log terms. Namely, Y is the vector of GDP per capita, GDP growth rate, tertiary school enrollment, inflation rate, and trade openness. U is country-fixed effects, delta is time-fixed effects, and e is the error term. We use country-fixed effects to account for differences between countries that remain constant over time, and we use time-fixed effects to account for factors that are constant between countries but vary over time. Both are standard practice in panel data analysis.

RESULTS

We first ran a fixed-effect regression with the number of MNC affiliates as the chief explanatory variable. The results are below in Table 2.

Table 2: MNC Affiliates

	(1)	(2)	(3)	(4)	(5)	(6)
	gii_	gii_	gii_3	gii_	gii_	gii_
Affiliates	0.000205**	0.000197*	0.000296**	0.000310***	0.000288**	0.000282**
	[0.0000991]	[0.000101]	[0.000119]	[0.000119]	[0.000118]	[0.000110]
ln_GDPpc		-0.00649	-0.0256***	-0.0207**	-0.0259***	-0.00333
		[0.00630]	[0.00710]	[0.00848]	[0.00868]	[0.00940]
ln_GDPgrowth			0.0000831	0.000819	0.00162	0.00104
			[0.000903]	[0.00105]	[0.00133]	[0.00151]
ln_Trade				0.00986	0.00745	0.0160**
				[0.00606]	[0.00588]	[0.00611]
ln_Inf					-0.00265*	-0.00188
					[0.00154]	[0.00166]
ln_Enroll						-0.0311***
						[0.00697]
Constant	0.556***	0.609***	0.771***	0.686***	0.747***	0.587***
	[0.00517]	[0.0504]	[0.0600]	[0.0861]	[0.0896]	[0.101]
Observations	332	332	224	207	192	141
R^2	0.972	0.972	0.983	0.983	0.983	0.991

Standard errors in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

We see that the number of MNC affiliates in a given country has a significant, positive impact on GII. Because of how GII is calculated, this means that increased MNC presence in a country will negatively impact gender equality. This is not in line with our hypothesis- we expected to see a negative relationship between MNCs and GII, or a positive relationship between MNCs and gender equality. The relationship we see here does have theoretical reasons for its existence:if a country has preexisting conditions of gender inequality, the presence of an MNC could exacerbate those conditions. These results also follow from Braha-Vokshi et al. (2019). They find that, when existing structures of inequality are in place, increased foreign investment can actually contribute to that inequality instead of reducing it. In theory, the same should hold true for MNCs, which is what we find here. The results are also in line with Langdon (1977), who found that MNCs that don't adapt their practice to host countries' technology can foster occupational segregation and wage inequality. Additionally, we see a significant, negative coefficient on tertiary school enrollment, indicating that higher levels of enrollment impact gender equality positively, a result very in line with theory. We also generally see significant, negative coefficients on GDP per capita (although these results are not entirely robust, as they are not significant in all regressions).

Now, to check the robustness of our results, we look at MNC assets in a given country instead of MNC affiliates.

Table 3: MNC Assets

	(1)	(2)	(3)	(4)	(5)	(6)
	gii_	gii_	gii_	gii_	gii_	gii_
Assets	0.000000746	0.000000890	0.00000160**	0.00000161**	0.00000157**	0.00000116
	[0.000000529]	[0.000000538]	[0.000000688]	[0.000000750]	[0.000000750]	[0.000000750]
ln_GDPpc		-0.0280***	-0.0410***	-0.0622***	-0.0647***	-0.00267
		[0.00899]	[0.0126]	[0.0161]	[0.0167]	[0.0430]
ln_GDPgrowth			0.00229	0.00615**	0.00693*	0.00577
			[0.00233]	[0.00233]	[0.00344]	[0.00471]
ln_Trade				-0.0235	-0.0253*	0.0190
				[0.0147]	[0.0143]	[0.0315]
ln_Inf					-0.00176	-0.00329
					[0.00191]	[0.00221]
ln_Enroll						-0.0389**
						[0.0162]
Constant	0.531***	0.736***	0.973***	1.216***	1.240***	0.707
	[0.0342]	[0.0745]	[0.0854]	[0.166]	[0.169]	[0.428]
Observations	134	134	87	82	75	53
R^2	0.981	0.982	0.987	0.988	0.990	0.994

Standard errors in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

We find no significant impact of MNC assets on GII. The result on tertiary school enrollment remains significant, and we again see a generally significant negative relationship between GDP per capita and GII. We find it worth noting again that many countries were missing MNC asset data, as the data on total MNC assets in a given country was often redacted or went unreported. Whereas we had 347 observations for MNC affiliate data, we only have 147 observations for

MNC assets. It's plausible that the lack of observations is contributing to the lack of significant results.

Finally, as a last check, we look at the impact of net FDI on GII.

Table 4: Foreign Direct Investment

	(1)	(2)	(3)	(4)	(5)	(6)
	gii_	gii_	gii_	gii_	gii_	gii_
Foreign direct investment, net (BoP, current US$) [BN.KLT.DINV.CD]	3.80e-13	2.79e-13	-3.07e-13	-4.92e-13	-5.46e-13	-5.66e-13
	[4.18e-13]	[4.19e-13]	[5.68e-13]	[5.58e-13]	[5.84e-13]	[5.44e-13]
ln_GDPpc		-0.0127***	-0.0263***	-0.0225**	-0.0266***	-0.00976
		[0.00469]	[0.00734]	[0.00874]	[0.00909]	[0.0104]
ln_GDPgrowth			0.0000889	0.000699	0.000519	0.000384
			[0.000859]	[0.000983]	[0.00133]	[0.00159]
ln_Trade				0.00870	0.00857	0.0177***
				[0.00593]	[0.00586]	[0.00672]
ln_Inf					-0.00420***	-0.00281*
					[0.00152]	[0.00154]
ln_Enroll						-0.0264***
						[0.00790]
Constant	0.563***	0.665***	0.786***	0.717***	0.763***	0.640***
	[0.00439]	[0.0378]	[0.0624]	[0.0882]	[0.0934]	[0.111]
Observations	353	353	246	226	207	150
R^2	0.976	0.977	0.981	0.981	0.982	0.989

Standard errors in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

We see no significant impact of net FDI on GII. The relationship between tertiary school enrollment and GII remains significant, as well as the relationship between GDP per capita and

GII. Inflation also sees a significant, negative coefficient in this model, but its lack of significance in other models leads us to believe these results are not robust. We feel it necessary to mention that we ran into issues of collinearity and endogeneity with FDI, but when instrumenting FDI found that neither a single-year lag nor a two-year lag were strong enough instruments, and thus FDI is relegated to a simple time-fixed effects and country-fixed effects regression. We also thought to examine logarithmic values of FDI, but our FDI measure is a net value and thus has negative observations. Certainly, more exploration of FDI's impact on GII is warranted.

CONCLUSION

In short, increased MNC presence has a positive effect on GII, indicating that MNC presence increases gender inequality. This is not in line with our hypothesis, but we theorize that this is due to preexisting conditions of gender inequality in Sub-Saharan African countries. There are a few possible channels for MNCs to increase inequality. The first is that women face barriers to entering the workforce in the region: MNCs present new job opportunities, but those opportunities go to men and therefore worsen inequality. Another is skill gaps. Because of preexisting gender inequality, women in Sub-Saharan African countries often have less skills that are applicable to the workforce than their male counterparts. Women often work in lower-wage industries, and males take the higher-paying jobs. There are also the considerations of technology brought up in Langdon (1977)- MNCs may use technology that many host country workers do not know how to use, and therefore only benefiting elite groups that likely do not include women.

Thus follows the policy implications of our findings- it is vital for MNCs to recognize what conditions of inequality exist in host countries. In order to have a positive impact on gender inequality, they must consciously work against existing cultures of inequality and discrimination. Sub-Saharan Africa is a region with a lot of gender inequality, so increased presence of MNCs goes towards increasing that inequality instead of bettering it. There's also the other side of the proverbial coin: if countries, especially those plagued by gender inequality, want to increase equality, they should consider what companies they let operate within their borders. If letting MNCs operate in-country means worsened gender equality, then countries could enact stricter

laws around hiring practices to ensure that gender equality is being improved rather than worsened. If MNCs are to become a positive contributor in the fight for gender equality in developing countries, both MNCs and host countries alike must work to make sure that their presence can be a positive force for women.

REFERENCES

Alamirew, M., Sime, Z., & Figari, F. (2019). *Gender Inequality, Governance and Poverty in Sub-Saharan Africa*.

Braha-Vokshi, L., Rexhepi, G., Ramadani, V., Abazi-Alili, H., & Sharif, A. (2021). The impact of multinational companies on inequality in Western Balkan countries. *Review of International Business and Strategy*, *32*(2), 305–323. https://doi.org/10.1108/ribs-04-2021-0057

Braunstein, E. (2006). *Foreign direct investment, development and gender equity: A review of research and policy*.

Horak, S., & Suseno, Y. (2022). Informal Networks, Informal Institutions, and Social Exclusion in the Workplace: Insights from Subsidiaries of Multinational Corporations in Korea. *Journal of Business Ethics*, *186*(3), 633–655. https://doi.org/10.1007/s10551-022-05244-5

Langdon, S. (1977). Technology Transfer by Multinational Corporations in Africa : Effects on the Economy. *Africa Development*, *2*(2), 95–114.

Moodley, L. (2019). *The power of parity: Advancing women's equality in Africa*. McKinsey & Company. https://www.mckinsey.com/featured-insights/gender-equality/the-power-of-parity-advancing-womens-equality-in-africa

Onogwu, D. (2021). *Munich Personal RePEc Archive Gender Inequality and Economic Development: Evidence from Sub-Saharan Africa*.