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Abstract

The purpose of this work is to contribute to literature by showing explicitly the impact of women's promotion policies on the reduction of the level of corruption and informal activities. For this goal to be achieved, data from 25 African countries obtained from different sources will be empirically analyzed (ICRG, Medina and Schneider2018). These data were tested according to a linear regression model and the results obtained established a negative relation between the change in the proportion of women parliamentarians, the level of corruption and the size of the informal sector.

Source: Nations unis, 2000. The world's women 2000: trends and Nations unis, 2000. The world's women 2000: Trends and statistics. Chart 5.13.p122 Charmes 1998a (updated 2000) Inter-parliamentary Union (classement Octobre 2019)

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CAN THE WOMEN'S PARLIAMENTARY REPRESENTATION REDUCES CORRUPTION AND INFORMAL SECTOR IN AFRICA? EMPIRICAL ANALYSIS

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Abstract

The purpose of this work is to contribute to literature by showing explicitly the impact of women's promotion policies on the reduction of the level of corruption and informal activities. For this goal to be achieved, data from 25 African countries obtained from different sources will be empirically analysed (icrg, wgi, Schneider and al.2010). These data were tested according to a linear regression model and the results obtained established a negative relation between the change in the proportion of women parliamentarians, the level of corruption and the size of the informal sector.

Nations unis, 2000. The world's women 2000: trends and statistics. Chart 5.13.p122

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1. Introduction

Statistics from recent decades have shown an over representation of women in the informal sector. This sector represents more than 96% of female jobs (putting agriculture aside), in Benin, Cameroon, Chad and Mali[1]. Nine out of ten women are involved in the informal non-agricultural sector in India and Indonesia. This sector represents in terms of non-agricultural employment 57% in Latin America and the Caribbean, 78% in Africa and 45 to 85% in Asia[2]. It is also recognized as a greater source of employment for women than for men (UN 2000). Working conditions in this sector are far from being less precarious and the authorities in place are therefore obliged to undertake reforms so as to speed up its formalisation. Despite the multiple reforms and endless debate, the development of informal activities continues to grow in the world. Surveys carried out have actually raised a crucial problem, being that of the quality of the institutions, where the integration of women in the institutions is recognized by several enterprises as major assets to the improvement of the quality of these institutions (Dollar and al., 2001; Dezsö and al., 2012).

This is due to their ability to roll back corruption and some illegal practices. Nevertheless, one realizes that these women are also involved in strong discrimination within these institutions more especially in the parliaments. For instance, Rwanda ranks first in the world with a representation of 65.25 and 38.46 per cent women MPs and Senators respectively. On the other hand, other countries are less represented: 3.8 and 6.4% in Nigeria, 7.3% in Benin, less than 15% in Egypt and Chad, 15.96 in Libya, less than 18% in Zambia and Gabon, 31.11 and 26% in Cameroon, 45.98 and 38.89% in South Africa[3]. In view of these values, one must be preoccupied with the following questions: can an improvement in the proportion of women in parliaments promote economic development through the reduction of corruption? What could be its effect on the size of the informal sector?

Some governments have already begun efforts in this direction. In South Africa, for example, the government has not only adopted the program for pregnant women and children under six, but has also set up balance of power in the parliament (Coustasse and Hilsenrath, 2005). Although many studies have been devoted to the issue of women's representation in parliament, few studies have been able to analyse the impact of women on corruption and the size of the informal sector. This leads us to the hypothesis that the more women are present in parliaments, the lower the level of corruption and informal activities. To achieve our goals, we organise the rest of the paper as follows: Section 2 provides a brief review of the literature; Section Three presents the empirical methodology as well as the data set. In section four, the results of our empirical analysis will be presented; and finally, in section five, conclusions will be drawn.

2. Literature review: feminine gender a central point in economic write-ups

Extensive law enforcement literature has found strong gender differences and women are less likely to commit and approve almost all kinds of criminal offenses and are less likely to be involved in corruption, tax evasion and other illicit activities (Togler, 2010). In their work, (Dollar F. and Gatti, 2001; Swamy and al., 2001) show that the level of corruption in a country decreases with the percentage of women in the parliament. Literature proposes two major theories to expatiate the gender differences Gottfredson and Hirschi (1990). One theory

[1] *Source: Nations unis, 2000. The world's women 2000: trends and statistics. Chart 5.13.p122*

[2] *Source : Charmes 1998a (updated 2000)*

[3] *Source : Inter-parliamentary Union (classement Octobre 2019)*

attributes the sex differences to the fundamental cognitive, emotional, and behavioral differences due to biological, psychological, and experiential realities. The alternative theory attributes the gender differences to the different participation of men and women in the labour market as well as in government. Some studies have shown that women are less likely to endorse corruption and tax evasion (Swamy and al., 2001; Torgler, 2007; Torgler and Schneider, 2007; Jha, C. K., and Sarangi, S., 2018). In addition, contrary to previous studies (Swamy and al., 2001) and (Togler, 2010) examine attitudes towards corruption and tax evasion and finds that the gender effect on corruption is much more intensified (robust). In terms of tax compliance, literature, including several experimental studies, shows a trend toward greater female tax compliance (Alm and al., 2006; Baldry, 1987; Torgler and Schaltegger, 2005; Togler, 2007). Experimental studies also show that gender influences charity donation, bargaining, household decision-making and contribution to the public good (Andreoni and Vesterlund, 2001; Brown-Kruse and Hummels, 1993; Eckel and Grossman, 2001; Nowell and Tinkler, 1994). According to such authors as (Anand Swamy and al., 2001; Anne Marie Goetz, 2007; Chandan K. Jha and S.Sudipta, 2018; Janet Elise Johnson, 2013), women access to decision-making positions reduces the level of corruption. In economics, many books suggest that there exist gender differences in risk preferences and social outcomes. For example, several studies suggest that women have a greater risk aversion than men when making investment decisions (Jianakoplos and Bernasek ,1996; Vickie L. bajtelsmit and Alexandra B., 1996). On a broader level, evidence that greater involvement of women in government leads to lower corruption is mixed. (Fisman and Gatti, 2001; Swamy et al., 2001) argue that greater participation of women in government reduces corruption. In a related analysis, Mocan (2004) uses data from the International Crime Victim Survey to show that men are more likely to demand a bribe than women. Vivi Alatasa and al. (2006) examine gender differences in attitudes towards corruption using an experimental methodology and find that attitudes towards corruption play a critical role in the persistence of corruption. Experimental data obtained from Australia gm(Melbourne), India (Delhi), Indonesia (Jakarta) and Singapore, show that, women are less tolerant than men in Australia, but there is no significant gender difference in corruption in India, Indonesia and Singapore. They conclude that women's attitudes towards corruption are more variable than those of men in their sampled countries. However, Sung (2003) points out that the gender effect loses its importance when empirical models include measures of constitutional liberalism. In addition, Mukherjee and Gokcekus n(2004) argue that there is an optimal level of women's participation in public organizations: an increase in the proportion of women in public organizations reduces corruption if the percentage of women is less than one-third. Certainly the views are mixed in terms of the effect of women's representation in governments on corruption.

Empirical studies on the size and development of the underground economy have grown rapidly in recent decades (Feld and Schneider 2010; Gerxhani 2003; Schneider 2011, 2015, 2017; Schneider and Williams 2013; Williams and Schneider 2016; and Hassan and Schneider 2016). This study is not based only on the relationship between corruption and women empowerment, but also with the informal sector. She aims to contribute to the literature on the impact of women's political empowerment on the size of the informal sector. However, it is realized that women are strongly discriminated against within institutions, especially in the parliaments. For example, Rwanda ranks first in the world with a representation of 65.25 and 38.46% of women MPs/Senators respectively. On the other hand, other countries stand out for their mediocrity: 3.8 and 6.4% in Nigeria, 7.3% in Benin, less than 15% in Egypt and Chad.

3. Methodological approach

We hypothesize that women's policies are different from those adopted by men and could be the potential channel through which women as parliamentarians will influence corruption and economic structure.

3.1- Specification of the equation

To study the importance of the relationship between women's political representation, corruption and the informal sector, we specified the models as follows:

Specification 1.

$Corrup = \beta_0 + \beta_1 Femp + \beta_2 IS + \beta_3 Inst\text{-}qual + \beta_4 Controls + \varepsilon$ "(1) "

β_1 is the effect of women parliamentarians, β_2 the effect of informality, β_3 the effect of the quality of institutions and β_4 the effect of variables controls and ε is the error term.

Specification2.

$IS = \delta_0 + \delta_1 Femp + \delta_2 Corrup + \delta_3 Femp*Corrup + \delta_4 Controls + \varepsilon$ "(2)"

δ_3 gives the interaction effect of women's parliamentary representation and corruption on the size of the informal economy.

3.2-Data and sources

Our article uses a large dataset composed of a number of variables derived from literature and different sources such as icrg, wgi, wdi. Informal sector data in the benchmark analysis are taken from Medina L. and Schneider F. (2018). Our study covers 25 African countries(Algeria ; Botswana ; Burkina ; Cameroon ; Central African; Chad; Côte d'Ivoire; Congo, Rep.; Congo, Dem.Rep.; Ghana; Guinea; Guinea-Bissau; Madagascar; Malawi; Mali; Morocco; Mozambique; Niger ; Nigeria; Rwanda ; South Africa ; Tunisia ; Uganda ; Zambia ; Zimbabwe) because of the lack of institutional data for other countries. We have taken into account the problem of endogeneity, a problem due to the fact that, while women in parliament can have an impact on corruption, it is quite possible that corruption determines the number of women in parliament. It is therefore absolutely essential to address this problem to accurately analyse the impact of women's presence in the parliament on corruption. Among these variables, a negative correlation between women's parliamentary representation, corruption and the informal economy can be foreseen. However, the governance and institutional variables draw our attention to the relevance of our results.

TableI. Summary statistics of 1991-2015 dataset

Variable	Description	Obs	Mean	Std. Dev	Min	Max
Femp	Parliamentary women	412	15.035	11.37553	0.66	3.8
Socioeco	Socioeconomic condition	625	3.814	1.677307	0.5	8
Corrup	Corruption	625	2.3142	1.005199	0	5
EthnicT	Ethnictensions	625	3.2862	1.251174	0	5
LawOrd	Lawandorder	625	2.9188	1.218261	0	6
Plural	Plurality	599	-196.19	397.9635	-999	1
IS	Informal sector(%GDP)	6253	9.9147	8.529204	6	9.10
PolitStab	PoliticalStability	425	-.66734	.8446128	653	1.11
RuleLaw	RuleofLaw	425	-0.7161	3.626183	-2.13	0.73

RegulQ	Regulation Quality	425	-.60666	.5899023	753	6.81
PropertyR	Property rights	499	36.1623	15.25722	5	750

4. Results

The impact of women's parliamentary representation on the corruption and the size of the informal sector are studied in table 2 and 3.

Table II: Effect of increase in parliamentary women on corruption (OLS)

Corrup	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Femp	-0.013***	-0.013***	-0.013***	-0.012***	-0.0119***	-0.004*	-0.005***	-0.0030*	-0.003**	-0.003**
	(-5.54)	(-5.79)	(-6.41)	(-5.74)	(-5.28)	(-1.89)	(-2.71)	(0.067)	(-2.07)	(-2.11)
Scioeco	-0.058***	-0.007	-0.018	0.0082	0.038	0.066**	-0.013	0.510	-0.0014	-0.003
	(0.019)	(-0.32)	(-0.83)	0.25)	(1.17)	(2.14)	(-0.65)	(0.39)	(-0.10)	(-0.22)
LawOrd		-0.12***	-0.224***	-0.222***	-0.214***	-0.16***	-0.057**	0.33*	0.032	0.07***
		(-4.98)	(-7.86)	(-7.63)	(-7.28)	(-5.74)	(-2.52)	(1.69)	(1.60)	(3.47)
EthnicT			0.160***	0.162***	0.152***	0.095***	0.13***	0.055	0.06***	0.035**
			(4.65)	(4.69)	(4.25)	(2.71)	(5.04)	(2.91)	(3.02)	(1.98)
Bqual				-0.094*	-0.116**	-0.110**	-0.108	-0.1***	-0.15***	-0.07***
				(-1.80)	(-2.17)	(-2.09)	(-3.04)	(-3.67)	(-4.00)	(-2.73)
Plural					-0.002***	0.00009	8.74	0.01***	0.001**	0.001**
					(-3.87)	(1.45)	(0.13)	(3.15)	(3.05)	(3.27)
IS						0.033***	0.012***	-1.237	0.002	0.0008
						(6.56)	(3.92)	(0.48)	(0.81)	(0.35)
PolitStab							-0.45***	-0.23***	-0.228	-0.097
							(-12.94)	(-7.89)	(-7.54)	(-2.77)
RegulQ								-0.66***	0.572**	0.32***
								(-12.82)	(-8.53)	(-3.86)
Prop-R									-0.004*	-0.001
									(-1.97)	(-0.60)
Rulelaw										-0.52***
										(-5.89)
Constant	3.55***	3.733***	3.563***	3.554***	3.411***	1.981***	2.311***	2.426***	2.59***	2.363***
	(37.02)	(39.13)	(30.45)	(31.03)	(25.87)	(6.95)	(12.88)	(17.35)	(17.36)	(16.71)
Observations	276	276	276	276	263	263	263	263	252	252
R-sq	0.1097	0.1518	0.2082	0.2179	0.2321	0.3650	0.6618	0.8119	0.8113	0.8398

*Note: t-statistics in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1*
Source: author's calculations based on stata 14.

The results in the first row of Table 2 indicate that a 1% change in women's parliamentary representation significantly reduces corruption by 1.3% for the first three columns, 1.2% for columns 4 and 5, and almost 4% for others. The economic condition also has a negative effect but not in all columns. The existence of tension between ethnic groups promotes the practice of corruption. A high informal sector significantly increases corruption but political stability helps to reduce corruption. In most cases, we find a significant impact of control variables on corruption. The estimates in column (7) suggest that a 1% change in regulatory quality would reduce corruption by 66.1%. However, according to the estimates in column (2), a 1% change in the rule of law negatively affects corruption by 11.6%. The impact of women's political representation on corruption, according to past studies or on the basis of literature review, is significant in all cases. Although still significant, this impact varies from column (1) to column (10). In other words, increasing women's positions in parliament reduces the practice of

corruption and discourages the use of illegal practices. A number of important points related to equation (3) deserve clarification. First, the influence of corruption on the informal sector is now a function of the representation of women in parliament, as was assumed in the previous section. Column 10 tells us that a 1% change in the parliamentary representation of women makes the effect of corruption on contrasting informality by reducing it by 9.3%. Secondly, any 1% change in the number of female parliamentarians has a significant impact on reducing the informal economy, which is the female agent's main source of income at 21%; 15%; 13%; 9.7% etc. in different columns.

***Table III**:* Female parliamentary interaction with corruption and Informality

IS	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Femp	-0.210 ***	-0.151 ***	-0.150***	-0.152***	0.0015	-0.131***	-0.083**	-0.085**	-0.058	-0.097*
	(-7.61)	(-5.03)	(-5.05)	(-5.14)	(0.03)	(-3.35)	(-2.31)	(-2.35)	(-1.59)	(1.71)
Corrup		1.024***	1.119***	1.259***	2.260***	0.245***	0.511	0.52**	0.348	1.63***
		(4.47)	(4.89)	(5.14)	(6.29)	(0.71)	(1.63)	(1.66)	(1.11)	(3.41)
LawOrder			-0.927***	-0.906***	-0.848***	-1.273**	-1.051**	-1.034**	-0.663	-0.940**
			(-2.95)	(-2.89)	(-2.75)	(-2.84)	(-2.58)	(-2.52)	(-1.58)	(-2.26)
QualB				-0.586	-0.694*	-0.763	-0.125	-0.164	0.196	0.161
				(-1.60)	(-1.93)	(-1.20)	(-0.22)	(-0.28)	(0.33)	(0.28)
PolitStab					-0.078***	-2.229***	-0.397	-0.408	-0.592	-0.908
					(-3.75)	(-3.65)	(-0.65)	(-0.67)	(-0.99)	(-1.53)
PropertR						0.108***	0.13***	0.132***	0.13***	0.116***
						(3.94)	(5.18)	(5.14)	(5.24)	(4.63)
RuleLaw							-8.22***	-7.90***	-7.59***	-7.16
							(-1.90)	(-6.01)	(-5.87)	(-5.65)
RegulQ								-0.535	-0.691	-0.410
								(-0.48)	(-0.64)	(-0.39)
Democ									-0.68***	-0.543**
									(-3.21)	(-2.58)
Femp* Corrup										-0.093***
										(-3.49)
Constant	43.591***	40.279***	42.89***	43.322***	41.206***	41.009***	2.90***	32.727***	35.24***	33.18***
	(97.58)	(46.85)	(34.93)	(34.53)	(30.37)	(20.38)	(15.37)	(15.04)	(16.65)	(15.52)
Observations	264	264	264	264	264	264	264	264	264	264
R-sq(overall)	0.1042	0.1042	0.1106	0.1065	0.0905	0.0992	0.3140	0.3228	0.3257	0.3448

*Note: t-statistics in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1*
Source: author's calculations based on stata 14.

The analysis of stationarity (Table 4) confirms the existence of a long-term relationship between our variables.

***Table IV**: Unit root test different variables*

	LLC	IPS	ADF	PP	Decisions
Corrup	-22.4519	-11.9730	174.241	203.201	I(1)
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	
LawOrd	-12.3686	-9.53716	171.106	193.770	I(1)
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	
RegulatQ	-7.09534	-4.80736	105.114	238.412	I(1)
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	

RuleLaw	-13.8003	-10.2386	190.542	237.294	I(1)
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	
Democ	-4.31942	-5.41537	120.666	135.615	I(0)
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	
Bur_Qual	-12.1445	-11.7259	189.635	205.870	I(1)
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	
Ethnic_T	-6.43923	-4.94423	110.047	62.7499	I(0)
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	
InformalS	-22.0416	-23.2834	-3.5509	461.581	I(1)
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	
PoliticalS	-6.30569	-5.16907	114.116	247.682	I(1)
	(0.0005)	(0.0000)	(0.0005)	(0.0000)	
PropertyR	-3.27829	-2.39790	60.5737	84.2228	I(0)
	(0.0005)	(0.0082)	(0.0064)	(0.0000)	

Source: author's calculations based on e-views 9

Robustness check

We test the robustness of our results by using alternative methods and explanatory variables in our regressions. The results are robust to alternative specifications as well as to variations in estimation techniques and the use of other explanatory variables of informality.

***Table V*:** Female parliamentary and Informality (different estimators)

Informality	OLS	FE	RE	2SLS	GLM	IV	3SLS	PCSE
Femp	-0.101***	-0.093**	-0.103***	-0.101***	-0.101***	-0.334**	-0.101***	-0.099***
	(-3.27)	(-2.59)	(-3.00)	(-3.27)	(-2.95)	(-2.06)	(-3.00)	(-2.75)
Socioeco	-1.556***	-0.097	-0.170	-1.556***	-1.556***	-0.333	-1.556***	-1.301***
	(-4.22)	(-0.40)	(-0.69)	(-4.22)	(-4.39)	(-1.16)	(-4.48)	(-3.83)
LawOrd	0.488	-0.404	-0.303	0.488	0.488	-0.653	0.488	0.297
	(0.97)	(-0.79)	(-0.62)	(0.97)	(0.92)	(-1.12)	(0.94)	(0.59)
EthnicT	1.148**	-0.702*	-0.530	1.148 **	1.148**	-0.135	1.148**	1.075**
	(2.32)	(-1.66)	(-1.30)	(2.32)	(2.33)	(-0.26)	(2.37)	(2.30)
QualBur	0.825	0.368	0.354	0.825	0.825	0.167	0.825	0.687
	(1.30)	(0.58)	(0.58)	(1.30)	(1.31)	(0.25)	(1.33)	(1.13)
PolitStab	-0.498	-0.492	-0.384	-0.498	-0.498	-0.268	-0.498	0.277
	(-0.56)	(-0.80)	(-0.63)	(-0.56)	(-0.61)	(-0.40)	(-0.62)	(0.36)
QualReg	-8.524***	-0.361	-0.892	-8.524***	-8.524	-1.906	-8.524***	-6.239***
	(-5.02)	(-0.33)	(-0.82)	(-5.02)	(-5.23)	(-1.41)	(-5.34)	(-4.29)
PropertyR	0.187***	0.148***	0.147***	0.187***	0.187***	0.110***	0.187***	0.171***
	(4.71)	(5.95)	(5.98)	(4.71)	(4.33)	(3.00)	(4.41)	(4.22)
RuleLaw	-3.011	-7.717***	-7.544***	-3.011	-3.011	-5.614***	-3.011	-4.98***
	(-1.41)	(-5.86)	(-5.90)	(-1.41)	(-1.56)	(-2.94)	(0.112)	(-3.00)
Constant	26.665***	33.714***	32.80***	26.587***	26.58***	39.390***	26.587***	28.146***
	(10.27)	(15.42)	(13.44)	(10.84)	(9.50)	(7.52)	(9.68)	(10.54)
Observations	264	264	264	264	264	264	264	264
R-sq	0.5118	0.3006	0.3379	0.5118		0.3350	0.5118	0.8231
AIC					0.49			
BIC					8027			

*Note: t-statistics in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.*

Source: author's calculations based on stata 14.

***Table VI**: Female parliamentary and Informality (Regression with others explicative variables)*

Variables IS	1	2	3	4	5	6	7	8	9	10
Femp	-0.228***	-0.138***	-0.139***	-0.155***	-0.165***	-0.149***	-0.167***	-0.150***	-0.146***	-0.147***
	(0.0325)	(0.0338)	(0.0333)	(0.0330)	(0.0334)	(0.0371)	(0.0377)	(0.0365)	(0.0371)	(0.0368)
Corrup		6.845***	7.166***	7.445***	6.683***	7.154***	8.722***	7.151***	7.211***	6.966***
		(0.740)	(0.950)	(0.936)	(1.069)	(1.129)	(1.187)	(1.163)	(1.183)	(1.199)
Prop			0.0104	0.00131	0.00093	0.00464	-0.0354	0.00424	0.00260	0.0285
			(0.0420)	(0.0436)	(0.0440)	(0.0430)	(0.0445)	(0.0392)	(0.0392)	(0.0400)
Oilrents				-0.0773	-0.0479	-0.101	-0.159**	-0.0441	-0.0522	-0.0468
				(0.0481)	(0.0532)	(0.0744)	(0.0698)	(0.0710)	(0.0732)	(0.0730)
ForestR					0.185*	0.216**	0.0688	0.169*	0.162*	0.176*
					(0.106)	(0.103)	(0.110)	(0.0940)	(0.0954)	(0.0974)
Trade						0.0467*	0.0411	0.0209	0.0229	0.0248
						(0.0273)	(0.0261)	(0.0286)	(0.0290)	(0.0294)
Gender							14.61***	6.058**	6.405**	6.099**
							(2.907)	(2.939)	(2.989)	(2.912)
Inflat								-1.885***	-1.851***	-1.857***
								(0.249)	(0.253)	(0.244)
Mobile									-1.485	-1.492
									(1.210)	(1.206)
EthnicT										0.293
										(0.332)
Const	43.86***	20.68***	19.40***	19.52***	20.85***	16.01***	2.066	28.00***	27.30***	27.38***
	(0.603)	(2.386)	(4.202)	(4.211)	(4.110)	(4.697)	(5.956)	(7.555)	(7.692)	(7.553)
Obs	412	276	264	264	264	263	227	218	218	218
R-sq	0.104	0.319	0.318	0.327	0.334	0.345	0.444	0.586	0.588	0.590

*Notes: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1*

Source: author's calculations based on stata 14.

5. Conclusion

In this article, we empirically explore the impact of the increase in women parliamentarians on corruption and the informal sector. To achieve this objective, our study uses data from the icrg, wgi and wdi covering 25 african countries from 1991 to 2015. We find that an increase in women parliamentarians positively affects institutional quality through the reduction of corruption and the informal economy. The results remain robust after using several databases and different estimation techniques. We focused on one region, but it could be interesting to study developing and transitional countries. These results have interesting political implications. The increase of women in parliament can help reduce the level of corruption,

which will bring important benefits to society, particularly in terms of the reduction of informal activities.

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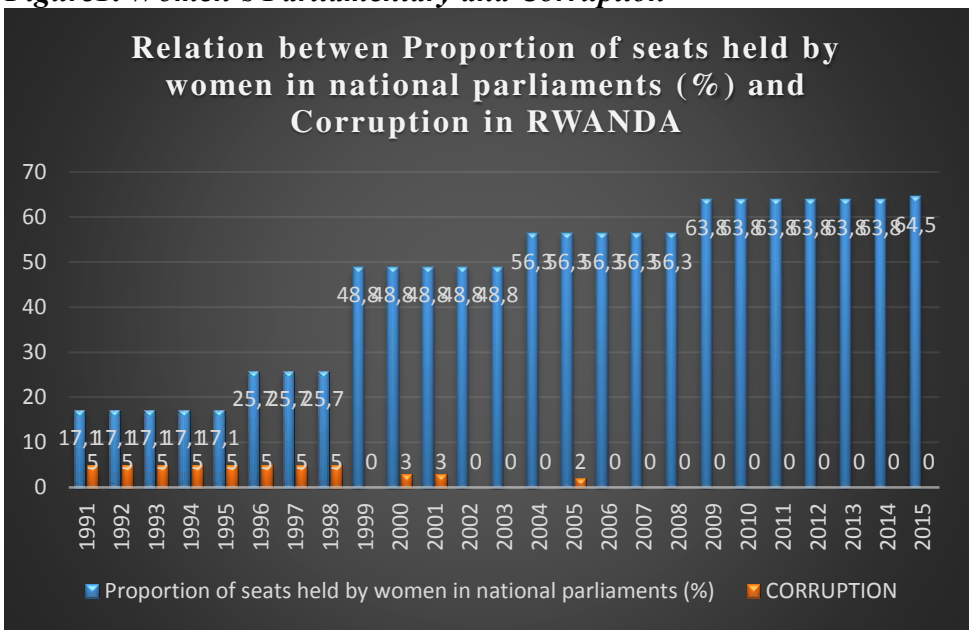
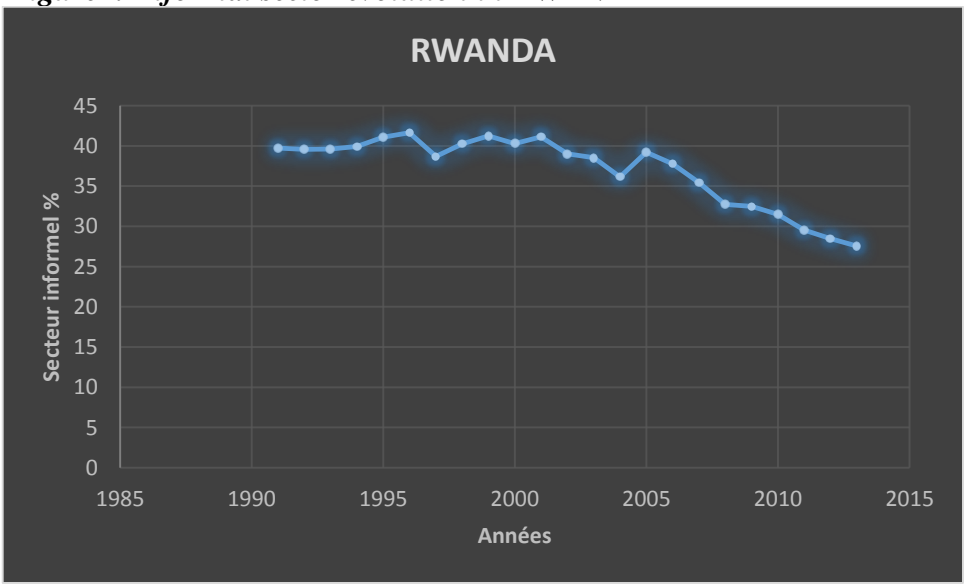
7. Graphics

Figure1: Women's Parliamentary and Corruption



Source: *Autor using data from ICRG and WDI*

Figure2: Informal sector evolution in RWANDA



Source: *Autor using data from Medina and Schneider. (2018).*