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Trends in the Determinants of Inequalities in Youth Wage Gaps by Gender in the Labour Market of Developing Countries: Exploratory Quantile Regression Analysis between 2015 and 2017 in the Republic of Congo

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Abstract

The behavior of the determinants explaining the gender wage gap of young people in the Congo labor market is examined in this paper. Using quantile regression from data related to the ETVA conducted in 2015 and the EAPEC (2018) conducted in 2018 in Congo. The main results show that education, place of residence, marital status, and age are the explanatory factors of wage inequalities between men and women in the Republic of Congo. The results obtained lead to the conclusion that wage inequalities among young people are a major challenge for the Congolese state. Social policies oriented towards the education system and policies related to the economic environment should be promoted.

Keywords

Wage Gap, Quantile Regression, Determinant, Labour Market, Gender

1. Introduction

Addressing gender inequalities remains one of the major challenges for the international community in achieving the Sustainable Development Goals by 2030 (SDG5, SDG8). The International Labour Organization (ILO) 2017 report already addressed the issue of wage disparities between men and women in the labor market. This situation remains worrying insofar as the wage gaps between young men and women are much more representative in the labor market (BIT,

2021). Indeed, in 2017, the global labour force participation rate of young women was about 49%, almost 27 percentage points lower than that of young men. Moreover, in 2019, young women worldwide were paid approximately 20% less than young men. This pay gap is due to the fact that women's and men's working hours differ significantly (ILO, 2019). This situation can also be explained on the basis of four theoretical approaches: The first refers to biological factors as the source of the wage gap (Hicks, 1932; Becker, 1985). The second highlights environmental aspects based on educational theory (Donain, 1985; Duru-Bellat & Mingat, 1993).

The third is based on the theory of discrimination in the labour market (Dickens & Lang, 1985). Finally, the last one develops the individual aspects based on the theory of human capital (Becker, 1964; Mincer & Polachek, 1974). In Congo, several studies have been carried out on the analysis of the labour market. We can cite the work of Ndinga et al. (2020), Lekouka and Menga Mokombi (2021), Ngassa (2018), Ndinga and Mpoue (2013), and Nzaou (2013). All these studies have certainly made it possible to study the functioning of the Congolese labour market, but they have not provided information on the analysis of the evolution of the factors explaining the inequalities in wages perceived by young people by gender in the Congolese labour market. This research differs from other work in the Congolese labour market in that it seeks to elucidate the factors explaining the evolution of wage differentials over the period from 2015 to 2017. Indeed, the results of this research can guide gender employment policies in the Republic of Congo. According to the results of the 2007 General Census of Population and Housing (RGPH-07), conducted in 2007, the female population was estimated at 52.0% of the total population, and 51.3% of this population was of working age. Similarly, the results of the ETVA (2015) reveal that the share of women working less than thirty-five hours (35) per week is 54.5%, while it is 41.8% for men (ETVA, 2015). Similarly, the results of the 2011 Enquête sur l'Emploi et le Secteur Informel (EESIC) carried out in 2011 (EESIC, 2011) showed an activity rate of 43.1% for women against 64.4% for men in urban areas. In addition, this market also reveals significant wage gaps between the sexes, with men earning about twice as much as women: an average wage of 60,000 CFA francs per month compared to 119,000 CFA francs per month (World Bank, 2018). In view of the above, only one question can be asked, namely: How do the determinants explaining gender-based wage inequalities among young people in the Republic of Congo evolve between 2015 and 2018?

The main objective of this article is to make a gender analysis of the explanatory factors related to wage inequalities between 2015 and 2018 in Congo. Thus, in this work, we support the hypothesis that there are explanatory factors for the issue of gender-based wage inequalities among young people in the Congolese labour market. This hypothesis is justified by Becker's theory (Becker, 1964).

This paper is structured into five (5) sections. In addition to the introduction,

the second section is devoted to a review of the literature. The methodology is the subject of the third section. The fourth section deals with the presentation and interpretation of the results obtained. The fifth section is devoted to the conclusion and policy implications.

1.1. Review of the Literature

From a theoretical point of view, the literature on the analysis of the determinants of youth inequalities can be divided into four main theoretical approaches: the biological approach (Hicks, 1932; Becker, 1985); the environmental approach (Donain, 1985; Duru-Bellat & Mingat, 1993); the approach based on the theory of discrimination in the labour market (Arrow, 1973a; Phelps, 1972; Doeringer & Piore, 1971); and the individual approach (Becker, 1964; Mincer & Polachek, 1974).

The first approach emphasizes biological factors in explaining the determinants of gender wage differentials in the labour market. This approach is based on the theory of the sexual division of labour developed by Hicks (1932), which states that the sexual division of labour is at the origin of wage disparities in the labour market. Indeed, this division is the result of choices made by economic agents according to their innate and cultural talents. This question will be explored later by Becker (1985), who will highlight the gendered division of domestic and non-domestic work time. He explains that women's human capital depreciates because they do not use it; as a result, they accumulate less work experience than their spouses, which has a negative impact on their wages.

The second approach analyzes this issue by referring to environmental aspects as explanatory factors for gender pay gaps in the labour market. This approach is based on the theory of educational discrimination in the household, which develops the hypothesis of differential treatment of boys and girls at school, which can have a significant influence on their choice of career (Donain, 1985; Duru-Bellat & Mingat, 1993). This approach highlights that discriminatory behavior in terms of education has long-term effects on the distribution of jobs between men and women and consequently on wage inequalities (Curraize, 2004). Similarly, Becker (1957), Phelps (1972), and Arrow (1973a) developed a theory of discrimination that emphasizes demographic factors (gender and skin color) as the primary determinants of wage discrimination among young people.

The third approach revolves around the hypothesis that discrimination in the labour market based on employers' prejudices is a source of gender-based wage inequalities (Musette, 2013; Lassassi & Hammouda, 2012). Becker (1957), Phelps (1972), and Arrow (1973a) developed this approach, which emphasizes demographic factors (sex and skin color) as the primary determinant of wage inequalities among young people. Similarly, from the 1970s on, authors such as Arrow (1973a) and Phelps (1972) proposed a new theory on the persistence of discrimination in the labour market. This is based on the issue of imperfect information in the market (Bluestone, 1970).

The last approach emphasizes individual factors in explaining the issue of

gender wage differentials in the labour market. This is based on the human capital theory developed by Becker (1964); Mincer and Polachek (1974). This approach considers that having a higher stock of human capital is synonymous with better job opportunities, better earnings, and higher productivity than those with less human capital. This state generates a wage differential between men and women.

1.1.1. Work Related to Developing Countries

In developing countries, this issue has been the subject of several studies. For example, the study carried out in France by the Observatoire National des Discriminations et de l'Egalité dans le Supérieur (ONDES, 2022), revealed that employment status and the use of part-time work are determining factors in the wage gap between women and men. Similarly, a 2020 study in twenty-six European countries by Cukrowska et al. found that motherhood is one of the explanatory factors of gender pay gaps. Furthermore, the work of Georges-Kot (2020), carried out in France, has shown that the inequalities in the wage income gap between women and men are linked to factors such as working hours, qualifications, domestic work, etc.

The work of Curraize (2004) was carried out in France. The latter found convincing results using the Oaxaca (1973) method. The results obtained by these authors show that adopting a narrow definition of equal pay for equal work results in discrimination. These studies show that part of the wage differential is indeed due to discriminatory practices linked to employers' behavior. Moreover, women still receive lower wages on average than men, and gender remains a significant determinant of occupational position.

Gender discrimination in the workplace has also been studied in Canada, in Ontario. This is the case in the study by Bernier et al. (2003), who examined the interaction between gender and occupation. They conclude that women's wage differentials are almost always lower than men's: twenty thousand for women compared to thirty thousand for men on average, due to the family support or childcare factor for the latter.

Furthermore, Autran (2009) analyzes the wage inequalities between men and women. He uses the Blinder-Oaxaca decomposition in the private sector in Languedoc-Roussillon. According to the author, in 2006, female employees in the private sector earned an average of 9.76 euros net per hour worked. This hourly wage is 15% lower than that of men. Women also work fewer hours than men. Flamand et al. (2018) conducted an investigation into age discrimination, using the pseudo-panel model à la Deaton. They argue that the wage profile of women by age is much flatter than that of men and also shows a very rapid "drop-out" of female wages compared to male wages. For people with a degree strictly below the baccalaureate, the monthly wage decreases after a certain age. Furthermore, Ulysse (2006) examined the situation of women in the Montreal labour market. They reveal that a high proportion of women are found in part-time jobs, atypical jobs, low-paid, without social protection, and jobs cha-

racterized by precariousness. This overrepresentation of women in precarious and part-time jobs is explained by: personal choice (28.1%), the lack of full-time employment opportunities (26.6%), and the fact of being a student. Furthermore, these authors report that childcare by women has fluctuated from 11.1% in 1997 to 8.2%; women hold 67.5% of part-time jobs, a rate twice that of men. Similarly, Meurs and Ponthieux's (2000) study of a sample of men and women found that the gender pay gap is largely explained by individual factors.

1.1.2. Work Related to Developing Countries

At the level of developing countries, a few studies have been interested in analyzing the determinants of gender-based wage inequalities, but very few concern young people and the evolution of these determinants. In Cameroon, for example, Ekamena Ntsama (2014) finds that gender wage discrimination in the labour market is influenced by individual factors. The results obtained by this author from a model developed by the works of Oaxaca (1973) and Blinder (1973) illustrate this fact. Similarly, the work of Thiongane and Kane (2020), in the case of Senegal, revealed from the linear decomposition approach of Oaxaca-Blinder and Firpo et al. (2009) an average level of 45% of the gender wage disparity. This disparity is influenced by women's individual characteristics (education, experience, training, and health). However, the study by Nordman et al. (2010), using the Oaxaca-Blinder wage gap decomposition procedure in Madagascar, showed that 70% of gender pay inequality is influenced by the individual characteristics of men and women. In addition, the study by Njikam et al. (2005), using data from the ECAM 2001, found that the reservation wage favors gender wage differentials. Furthermore, this study found that human capital explains more of the income of men than of women. Similarly, the work of Boutin (2010) showed that the level of education influences gender wage differentials in youth.

This review of the literature shows that most studies have focused on the analysis of the determinants of gender-based wage inequalities based on the linear decomposition approach of Oaxaca (1973) and the Heckman method (Heckman, 1976), including in developing countries (Thiongane & Kane, 2020; Paul & Dort, 2014; Ekamena Ntsama, 2014), but few studies have reported on the trend in the determinants of inequality in the wage gap in general and for youth in particular. This study aims to fill this gap by contributing to the literature on the analysis of wage determinants through an exploratory empirical approach.

2. Methodology

In this section, the literature search and the modeling of discrimination in the labour market are examined in turn. gender analysis of the Congo case.

2.1. Method of Analysis

2.1.1. Theoretical BASIS of Quantile Regression

The literature on the factors determining wage differentials has been the subject

of several works (Mincer & Polachek, 1974; Blinder, 1973; Oaxaca, 1973). These have developed several techniques, including the Blinder-Oaxaca decomposition technique (Blinder, 1973; Oaxaca, 1973). Indeed, Koenker and Bassett introduced the quantile regression technique in 1978, based on the failure of the hypothesis of the normality of the errors from classical OLS estimation. As a result, the use of quantile regression in the analysis of inequality has been popularized across several market domains: the housing market (Stephen et al., 2019; Zietz & Sirmans, 2008); the education market (Koenker & Bassett, 1978); and the labour market (Buchinsky, 1998). The use of this method is based on the limits of the mean developed by Blinder (1973) and Oaxaca (1973) in order to explain the differences in wages between women and men. To this end, quantile regression is one of the tools that can address these inherent limitations of the mean (D'Haultfœuille & Givord, 2014). To this end, the use of the quantile regression method in this paper is justified by the fact that it allows for a richer description than classical linear regressions since it focuses on the entire conditional distribution of the variable of interest and not only on its mean.

2.1.2. Specification of the Quantile Regression Model

The methodological approach proposed in this paper is the quantile regression developed by Koenker and Bassett in 1978, as an extension. Therefore, the specification of the distribution function is as follows:

$$F_Y\left(F_Y\left(y\right)=P\left(Y\le y\right)\right) \tag{1}$$

Recall that the quantile of order π is generally defined by

$$q_\pi\left(Y\right)=\inf\left\{y{:}F_Y\left(y\right)\ge\pi\right\} \tag{2}$$

If F_Y is continuous, we find the intuitive property $P\left(Y<q_\pi\left(Y\right)\right)=\pi^3$. The most commonly used quantiles are the median ($\pi=0.5$), and the first and last quartiles ($\pi=0.25$ and $\pi=0.75$).

2.2. Data Source and Choice of Variables

2.2.1. Data Source

The data used in this study come from two sources: EAPEC, 2018, and ETVA, 2015. Both databases were carried out in the Republic of Congo with the aim of improving the issue of youth employment. The use of these two databases is justified by the fact that they are recent, but also by the fact that the drawing of two samples of households from which all young people aged 15 to 29 were interviewed was done from a single sampling frame. In addition, the implementation of the National Employment Policy (PNE) in 2012 by the Congolese government required a revision in 2015 due to numerous problems (employability, persistent inequalities in the market). Therefore, it is interesting to make a comparative analysis between the two years in order to capture the effects of this improvement between 2015 and 2018 on wage inequalities, as the results will have employment policy implications.

2.2.2. Choice of Variables and Descriptive Statistics

Many of these studies focus on variables such as age, level of education, place of residence, and field of education in the analysis of the explanatory factors of gender pay gaps in the labour market for young people (Spierings et al., 2008; Jacques, 2015; Maman, 2017). Similarly, the work of Hicks (1932) highlighted biological (sex) factors in explaining gender pay gaps. To this effect, Table 1 below presents the descriptive statistics of the different variables selected according to the different quartiles of wages between 2015 and 2018.

The results in Table 1 reveal pay gaps between the two years 2015 and 2018 for both genders. In fact, the statistics show a decrease in pay gaps for women between the three quartiles of 3.52, 0.52 and 0.78 percentage points. For men, on the other hand, the situation has changed between the three quartiles, i.e. 3.52% for those earning 25% of the average wage observed in the sample as a whole, 0.52% for those earning at least 50% of the average wage observed in the sample as a whole, and finally 0.78% for those earning at least 75% of the average wage

Table 1. Description of variables in percentage of modality according to wage quartiles between 2015 and 2018.

Year	2015 (%)			2018 (%)			Gap between 2015-2018		
	Quartiles			Quartiles			Quartiles		
Variables	25%	50%	75%	25%	50%	75%	25%	50%	75%
Gender									
Male	60.33	77.88	79.63	63.85	78.40	80.41	−3.52	−0.52	−0.78
Female	39.67	22.12	20.37	36.15	21.60	19.59	3.52	0.52	0.78
Place of residence									
- Brazzaville	65.52	73.42	56.04	46.92	18.52	14.43	18.6	54.9	41.61
- Pointe-Noire	34.48	26.58	43.96	53.08	81.48	85.57	−18.6	−54.9	−41.61
Marital status									
- Other	24.79	20.19	28.70	46.92	37.04	21.65	−22.13	−16.85	7.05
- Single	70.25	74.04	59.26	50.77	56.17	75.26	19.48	17.87	−16
- Marie	4.96	5.77	12.04	2.31	6.79	3.09	2.65	−1.02	8.95
Éducation-Individuals									
- None	14.29	7.92	2.91	---	----	-----			
- Primary	27.62	26.73	7.77	14.62	16.05	21.65	13	10.68	−13.88
- Secondary 1	36.19	41.58	37.86	31.54	34.57	21.65	4.65	7.01	16.21
- Secondary 2	15.24	16.83	32.04	30.77	27.78	24.74	−15.53	−10.95	7.3
- Supérior	6.67	6.93	19.42	23.08	21.60	30.93	−16.41	−14.67	−11.51
Age (average)	23.97521	25.18269	26.78704	28.83846	31.17901	30.63918	−4.86	−5.99	−3.85
Field of training									
- General training	83.47	82.69	62.04	73.85	69.14	44.33	9.62	13.55	17.71
- Technical training	16.53	17.31	37.96	26.15	30.86	55.67	−9.62	−13.55	−17.71

Source: The author, based on the ETVA, 2015, and EAPEC, 2018.

observed in the sample as a whole. Over this period, the gap for men increased to 25% of the average salary observed in the sample as a whole, or 3.52%. For women, on the other hand, there was a decrease of 3.52%. This could be explained by the beneficial effects of the national gender policy implemented since 2016. However, for men, this may be explained by the high rate of jobseekers (ETVA, 2015; EAPEC, 2018).

In terms of place of residence, there were more wage inequalities in the city of Brazzaville in 2015, whereas in 2018 there were significant inequalities in the city of Pointe-Noire. Indeed, the high percentage in the city of Pointe-Noire can be explained by the drop in economic activity, which has favoured an increase in the workforce in the city of Pointe-Noire (REGEC, 2021). There was also a trend towards greater wage inequality for young people with technical training between 2015 and 2018, i.e. 9.62% for the first quartile. This situation decreases for young people with general training (see Table 1). These results can be explained by the many reforms carried out in general education: the introduction of excellence classes, the abolition of the second round of the general baccalaureate, etc. These reforms have helped to reduce inequalities between the sexes. These reforms have helped to reduce social inequalities, which are increasingly encouraging young people to pursue longer courses of study.

3. Results Analysis and Discussion

This section is devoted to the econometric analysis of the quantile regression and the discussion of the results.

3.1. Econometric Analysis of the Results

In order to study the dynamics of the factors determining the gender wage gaps of young people in the labour market, a quantile regression model was estimated with the samples of two periods: 2015 and 2018. As a result, the results reported in Table 2 and Table 3 present the evolution of different determinants explaining youth wage gaps by gender between 2015 and 2018.

Table 2. Result of the Breusch-Pagan heteroscedasticity test.

Test de Breusch-Pagan		2018	
	Male		Woman
$Chi^2(8)$	13.06	$Chi^2(8)$	5.28
$Prob > Chi^2$	0.1099	$Prob > Chi^2$	0.7271
		2015	
$Chi^2(12)$	30.68	$Chi^2(13)$	12.41
$Prob > Chi^2$	0.0022	$Prob > Chi^2$	0.4946

Source: The author, based on the ETVA, 2015, and EAPEC, 2018.

Table 3. Presentation of estimation results in 2015 and 2018.

Variables	2015 Male MCO	25%	50%	75%	2015 Female MCO	25%	50%	75%	2018 Male MCO	25%	50%	75%	2018 Female MCO	25%	50%	75%
	Salary	Salary	Salary	Salary	Salary	Salary	Salary	Salary	Salary	Salary	Salary	Salary	Salary	Salary	Salary	Salary
Age	−9568	−13,487	−16,614	−23,970	−12,031	11,531	−19,578	−28,059	−322.6	6.074**	4.252	−1.410	2662	32.25	34.78	20.40
	(33,059)	(21,853)	(36,311)	(34,232)	(126,730)	(27,474)	(38,530)	(157,226)	(292.8)	(2.764)	(4.065)	(9.647)	(2398)	(21.35)	(34.08)	(281.2)
Age2	259.3	328.9	450	536.9	639.1	−134.6	558.6	906.8	267.5	−4.493*	−1.867	2.275	−4670	−55.30	−61.61	−30.14
	(693.3)	(458.3)	(761.5)	(717.9)	(2735)	(592.9)	(831.5)	(3393)	(251.2)	(2.370)	(3.487)	(8.274)	(4026)	(35.85)	(57.23)	(472.2)
Marital status			Ref: Other													
Singles	−14,456	13,772	−13,845	−43,466*	−66,398	−1739	−6076	−19,576	−1549	12.17	−21.63	−0.910	−496.3	93.56**	111.0*	102.4
	(23,045)	(15,233)	(25,312)	(23,863)	(79,852)	(17,312)	(24,278)	(99,068)	(3824)	(36.09)	(53.09)	(126.0)	(4001)	(35.63)	(56.88)	(469.3)
Marie	129,384***	48,465*	206,280***	141,351***	55,928	45,011	36,924	36,356	−1917	−18.65	−29.57	−24.80	−4,130	−6.636	−12.93	−10.27
	(42,234)	(27,918)	(46,389)	(43,733)	(128,634)	(27,887)	(39,109)	(159,588)	(1446)	(13.65)	(20.08)	(47.64)	(2671)	(23.79)	(37.97)	(313.3)
Schooling							Ref: No									
Yes	17,716	7149	−2864	21,351	−69,967	−10,869	−20,014	−60,932	-	-	-	-	-	-	-	-
	(20,334)	(13,442)	(22,335)	(21,056)	(73,742)	(15,987)	(22,420)	(91,487)								
Education_individuals								Ref: Superior								
No	−121,485***	−50,702*	−106,880**	−155,162***	−96,039	30,021	11,396	−42,627	764.0	−176.3*	−87.15	20.52	3157	−0.439	5.390	20.50
	(44,333)	(29,305)	(48,695)	(45,907)	(294,011)	(63,740)	(89,389)	(364,761)	(10,300)	(97.20)	(143.0)	(339.3)	(3145)	(28.01)	(44.71)	(368.9)
Primary	−139,898***	−37,398	−102,755**	−167,361***	−114,619	−18,126	−14,707	−120,424	−544.0	−183.6*	−109.6	20.16	−443.7	4.636	−5.522	−7.770
	(39,336)	(26,002)	(43,206)	(40,732)	(147,004)	(31,870)	(44,694)	(182,379)	(10,270)	(96.92)	(142.6)	(338.3)	(3440)	(30.63)	(48.90)	(403.5)
Secondary 1	−86,183**	−9167	−72,334*	−131,452***	−54,031	−10,258	6369	−66,780	−1201	−195.8**	−106.5	19.98	200.9	3.773	13.17	47.49
	(33,575)	(22,194)	(36,878)	(34,766)	(106,241)	(23,032)	(32,301)	(131,807)	(10,280)	(97.01)	(142.7)	(338.7)	(3428)	(30.53)	(48.73)	(402.0)
Secondary 2	−88,178**	−17,456	−64,843	−110,102***	57,811	3675	−7125	−59,576	−1759	−187.1*	−89.64	94.80	−1555	−19.09	−37.78	−52.55
	(36,016)	(23,807)	(39,559)	(37,294)	(121,098)	(26,254)	(36,818)	(150,239)	(10,309)	(97.29)	(143.1)	(339.6)	(2551)	(22.72)	(36.27)	(299.2)
Place of residence							Ref: Pointe-Noire									
Brazzaville	−63,853***	−3,596	−23,739	−75,079***	52,824	−7930	4986	−1271	1636	−26.22*	−49.50**	−95.39**	3451	−38.77	−117.1***	−216.3
	(18,932)	(12,514)	(20,794)	(19,603)	(66,770)	(14,475)	(20,300)	(82,838)	(1,445)	(13.64)	(20.06)	(47.61)	(2650)	(23.60)	(37.68)	(310.8)
Migration							Réf: Yes									
No	−10,302	−16,535	−9173	−12,843	−30,480	−11,656	11,090	30,847	2764*	−31.35**	−57.41***	−100.2**	1722	1.288	−2.985	−3.545
	(20,185)	(13,343)	(22,171)	(20,901)	(81,199)	(17,603)	(24,687)	(100,738)	(1416)	(13.36)	(19.66)	(46.65)	(2896)	(25.79)	(41.17)	(339.6)
Health status							Réf: Yes									
No	-	-	-	-	−143,923	−37,670	−23,937	−43,186	796.1	7.484	20.19	75.18	−1006	3.500	36.57	145.5
					(154,880)	(33,577)	(47,089)	(192,151)	(1899)	(17.93)	(26.37)	(62.57)	(2361)	(21.02)	(33.56)	(276.9)
Field of training							Réf: General training									
Technical training	11,601	87.72	1418	6169	−105,064	2732	32,432	0	2451*	27.12**	30.72*	100.2**	−38,285	−369.7	−290.1	−27.58
	(26,083)	(17,241)	(28,649)	(27,008)	(71,501)	(15,501)	(21,738)	(88,707)	(1319)	(12.44)	(18.31)	(43.44)	(35,532)	(316.4)	(505.1)	(4167)
Constant	344,532	218,026	346,845	627,481	172,670	−125,185	225,053	366,102	6243	141.3	158.6	226.3				
	(393,162)	(259,890)	(431,845)	(407,115)	(1.441e+06)	(312,440)	(438,163)	(1.788e+06)	(12,038)	(113.6)	(167.1)	(396.6)				
Observations	161	161	161	161	75	75	75	75	288	288	288	288	101	101	101	101
R-squared	0.324				0.157				0.044				0.0693			
Pseudo R2		0.0931	0.1175	0.2841		0.0912	0.1151	0.1575						0.0132	0.0194	0.0262

***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Source: The author, based on the ETVA, 2015, and EAPEC, 2018.

Statistically, the estimated coefficients, based on the data for both years (2015 and 2018), reveal that variables such as: level of education, place of residence, marital status and age are significant at the different thresholds: 1%, 5% and 10%. Similarly, the result reported in Table 2 of the heteroskedasticity test performed using the Breuch-Pagan test statistic is significantly different from zero. This result justifies the use of quantile regression. As a result, the quantile regression results suggest significant differences between different points in the gender wage distribution of young people during 2015 and 2018. With regard to the significance of the different coefficients of the variables at the 1%, 10% and 5% thresholds, the results obtained suggest that the variables: level of education, place of residence, marital status and age are the determinants that explain the gender wage inequalities during 2015 and 2018. Similarly, the coefficients associated with the Breusch-Pagan statistics in Table 1 above are significant and differ from zero for men; this shows that the null hypothesis of the heteroskedasticity test is accepted i.e. the different variances of the errors do not vary. These results justify the use of quantile regression.

3.2. Discussion of the Results

A reading of Table 2 and Table 3 allows us to draw a single major lesson from the analysis of the explanatory factors of the gender-based wage gaps for young people in the Congolese labour market. Indeed, the results reveal the existence of wage gaps between men and women over the period of 2015-2018. As a result, two lessons can be drawn from these results related to the factors explaining the dynamics of the gender wage gap for young people in the Congo: Firstly, the results reveal the existence of factors that can reduce wage inequalities and, secondly, factors that have mixed effects on the analysis of gender wage inequalities.

3.2.1. Determinants for Reducing Gender Pay Inequalities

The results in Table 2 and Table 3 show that the variables education level and place of residence are potential determinants for reducing wage inequalities between the two years. These variables are significant and differ from zero at the 1% and 5% levels. All else being equal, in 2015, we find that having no level for young men compared to the top level would reduce wage inequality by less than 50.702 for 25%, 106.880 for 50%, and 155.162 for 75% of our observed average wage sample. Similarly, in 2018, wage inequalities were reduced only for men in the top quartile to 25%. For women, however, the level of education does not determine wage inequalities since, between the two years, this variable is not significant. This result can be explained by the fact that the unemployment rate for men (29%) is higher than for women (24%), as revealed by the results of the EAPEC (2018). Also, this result confirms the work of Gakou and Kuepié (2008), who indicate that the education of Malian women clearly increases their probability of entering the formal sector. This is what the human capital theory developed by authors such as Becker (1985) says. This theory argues that the idea

of the wage hierarchy translates into the fact that the best paid employees are logically those who have invested the most in training or education.

Furthermore, the results reveal that place of residence is a determining factor in the reduction of wage inequalities between men and women (Chamkhi, 2015). Indeed, the environment variable is significant at the 10% threshold; it has a negative influence on the wage gap between the two years. To this end, all other things being equal, it shows that residing in Brazzaville, as opposed to Pointe-Noire, in 2015 had negative effects on wage gaps of 75.079 for young women and 75% of our sample of young men. On the other hand, for the year 2018, we observe.

3.2.2. Mixed Determinants in the Analysis of Gender Pay Inequalities

The results in Table 2 and Table 3 show that the variable field of study is a mixed determinant, as it favors inequalities among young men and reduces inequalities among young women. Indeed, this variable is significant and different from zero at the 1% and 5% thresholds. All other things being equal, we find that in 2018, having a technical education compared to general education for young men increases inequalities by 27.12 for the 25%, 30.72 for the 50%, and 100.2 for the 75% of the entire observed sample. On the other hand, for young women, the fact that they have a technical education compared to a general education reduces wage inequalities. These results justify the establishment of various education and training centers (CEFA) for the development of young people's skills, since 2010 (DOSTRAPOG, 2015; SNSF, 2015).

The results in Table 2 and Table 3 show that marital status is a mixed determinant, as it both promotes and reduces inequalities among young men and women. Indeed, this variable is significant and different from zero at the 1% and 5% thresholds. All other things being equal, we find that in 2015, the fact that a man is married compared to the others increases wage inequalities by 48.465 for the 25%, by 206.280 for the 50%, and by 141.351 for the 75% of the whole sample observed. On the other hand, being single, compared to others, reduces wage inequality by 43.466 for 75% of the observed sample of men. In fact, this situation was very important in 2018 for young single women: 93.56 for the 25% and 111 for the 50%. Also, we see that the field of study is a source of wage inequality for young men in 2018, i.e., an increase of 27.12 for the 25%, 30.72 for the 50%, and 100.2 for the 75% of the entire sample observed. These results are consistent with those obtained by Spierings et al. (2008). Indeed, Spierings' study found that being married or in a common-law relationship is a motivating factor for being more active in the labour market.

4. Conclusion and Policy Implications

Gender wage discrimination remains a topical issue today. It has been the subject of much concern in most countries of the world in general and in sub-Saharan Africa in particular because many women are much more penalized than men in

terms of wages. Far from being exempt from this situation, the Congo, which is our field of study, is concerned by this issue, as young women earn an average salary of 116,653 FCFA against 130,676 FCFA for young men, a difference estimated at 140,232 FCFA (ETVA, 2015). This reality was the motivation for our research, because the objective we set for ourselves was to analyze the behavior of the determinants explaining the gender-based wage gaps for young people in the Congo labour market. Thus, to achieve our objective, a review of the literature was mobilized. From this review of the economic literature, four approaches were selected to explain the issue of gender wage discrimination: the biological approach (Hicks, 1932; Becker, 1985); the environmental approach (Donain, 1985; Duru-Bellat & Mingat, 1993); the labour market dysfunction approach (Arrow, 1973b; Phelps, 1972; Doeringer & Piore, 1971); and the individual approach (Becker, 1964; Mincer & Polachek, 1974). Thus, the results obtained from quantile regression results show the existence of determinants such as education, place of residence, marital status and age as explanatory factors for wage inequality between men and women in the Republic of Congo. The results suggest that wage inequality among young people is a major challenge for the Congolese state. Therefore, is it not enough to improve human capital to reduce the wage gap between men and women? At the end of this research, the results suggest a policy aimed at reducing pay inequalities. This could be based on a policy of strengthening education, training and apprenticeship centres at national level, as well as taking gender issues into account in the various employment programmes.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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