



AN INVESTIGATION INTO THE DIFFERENCES IN WOMEN'S EMPLOYMENT BEFORE AND AFTER THE MILLENNIUM DEVELOPMENT GOAL 2010 IN CAMEROON

Kinga Bertila Mayin 

Catholic University of Cameroon (CATUC) Bamenda, Department of Health Economics
and Policy Management, Cameroon

The University of Bamenda, Faculty of Economics and Management sciences, Cameroon
bertsking@yahoo.com

Sundjo Fabien

The University of Bamenda, Faculty of Economics and Management sciences, Cameroon
sundjofabien@rockmail.com

Fondungallah Nkeng Sheila

The University of Bamenda, Faculty of Economics and Management sciences, Cameroon
nkengsheila@gmail.com

Abstract

Female employment as a percentage of total employment stood at 45.3% (ILO, 2018). The figures show a decline in female employment rate from 2005 to 2019. It equally indicates that in 2018, women employment rate was lower than that of men in Cameroon. This work was aimed at investigating the differences in women's employment before and after the millennium development goals (2010) in Cameroon. The expo-facto research design and pooled data from the 1991, 1998, 2004, 2011 and 2018 Cameroon DHS data set was used. The total sample size stood at 50,131. The logit model, Multivariate and Fairlie decomposition models were used to analyze the data. We found an overall, significant difference in women's employment before and after the Millennium Development Goal (2010). Women employment after 2010 was smaller than before 2010. However, though there was an overall fall in women's employment; women's

employment in the formal sector rose after the implementation of the MDG in Cameroon. It was concluded that there exist differences in women's employment for periods before and after the 2010. This study thus recommended a continues promotion of women's employment both in the formal and informal sector of Cameroon. This can be done through educational and career counselling, provision of start-up capital, adult literacy and offering entrepreneurship trainings to these women. The strict implementations and follow-up of policies aimed at ensuring the promotion of women's employment in Cameroon is therefore also recommended.

Keywords: Women, Employment, Millennium Development Goals, Differences, Cameroon

INTRODUCTION

Globally, labour force participation rate for men and women aged 15 and above continues its long-term decline. It stood at 61.8 percent in 2018, down by 1.4 percentage points over the past decade. The decline in women's participation rate has been slower than that of men (ILO, 2018). Since 1990, this gap has narrowed by 2 percentage points, with the bulk of the reduction occurring in the years up to 2009. The improvement rate since 2009 halted during the period 2018–21. The gap in participation rates between men and women is narrowing in developing and developed countries but continues to widen in emerging countries, where it stood at 30.5 percentage points in 2018, up by 0.5 percentage points since 2009 (ILO, 2018).

World War II (WWII) had an important impact on women's employment rate. Millions of women entered the labour market to fill in for their male counterparts who left their civilian jobs to join World War II in 1939. Consequently, in 1940, the female participation rate was 27.9 and increased to 35.8 in 1945 (Blau and Kahn, 2010). Another significant increase occurred between 1960 and 1970, when female employment rate rose from 37.7% to 43.3%. Overall, the women's employment rate increased from 34% in 1950 to 60% in 2008. The rapid upward drift in women's employment over time compensated for the decline in the male participation rate contributing to the rise of the overall total or aggregate participation rate over time (McConnell et al., 2010).

The rise in women's employment is attributed to the fact that women all over the world now allocate a substantial amount of time to employment. The 20th century in particular saw a radical increase in the number of women participating in labour markets across early-industrialized countries (Esteban et al., 2018). In the majority of countries and across all income levels, the participation of women in labour markets is today higher than three decades ago. In some countries, participation is higher for younger women, and in some, it is higher for older

women. In countries where female participation in labour markets is generally low, participation is much higher among younger women (Esteban et al., 2018).

According to the International Labour Organization (ILO) statistics, the female employment rate as a percentage of total employment for some developed countries in 2018 stood at 43.9% for China, 47.3% for Canada, 46.0% for USA, 41.8% for Argentina, 46.9% for France, 46.5% for Germany, 64.7% for United Kingdom, 50.5% for Sierra Leone and 46.7% for Australia. The figures for other countries like India (22.1%), Algeria (17.9%), Iraq (14.5), Jordan (17.8%), Lebanon (24.8), and Libya (24.5%) seems to indicate too that the issue require urgent concern. Morocco (24.1), Pakistan (21.9%), Qatar (14.1), Saudi Arabia (16.8%), Somalia (20.9%), Sudan (26.3%), Syrian Arab Republic (14.6%) and Tunisia (26.5%) also have low female employment rate. Overall figures for female employment for the world in 2019 stood at 39.0%.

African countries also have low rate of female employment. Egypt and South Africa registered 23.7% and 24.0% as female employment rate which was considered by I.L.O in 2019 to be very low. In many developing countries, a high proportion of working women are active in the informal and agricultural sector. However, the shares in this sector have fallen in recent years as more women have taken up work in the service sectors as well as in the manufacturing sector in few countries, such as Bangladesh (ILO 2018). In sub-Saharan Africa, over 60 per cent of all women who are working remained in agriculture, often concentrated in time and labour-intensive activities, which are either unpaid or poorly remunerated. Reversing the employment gender gap is a pressing priority, says ILO in it 2018 report.

In some sub-Saharan Africa countries, time-related underemployment for women is as high as 40 or 50 per cent of total employment while women continue working fewer hours in paid employment and still perform the vast majority of unpaid household and care work (ILO, 2016). The ILO-2016 report shows the enormous challenges women continue to face in finding and keeping decent jobs. On average, women carry out at least two and a half times more unpaid household and care work than men (ILO, 2016). Still in sub-Saharan Africa, female participation rates in labour force have however increased by 3.2% over the last two decades. This increase could well be due to the absence of alternative income from social protection and persistent poverty, which does not allow the option of dropping out of work (ILO, 2016). Such increase in the female labour supply are likely to be absorbed among own-account and contributing family workers (ILO, 2016).

Figures for female labour force participation for Cameroon with a population of 25,876 million stood at 78.1 in 2005, 70.8 in 2010 and 71 in 2019 according to UNSD Databases (2020). Female employment as a percentage of total employment stood at 45.3% (ILO, 2018).

The figures show a decline in female employment rate from 2005 to 2019. It equally indicates that in 2018, employment rate was lower than that of men in Cameroon. A number of studies have been carried out in Africa and in the world at large to investigate reasons for low levels of women's employment. Amongst other factors, results showed that fertility and health account for low levels of female employment. This study aims at comparing women's employment before and after the implementation of the MDG of 2010 in Cameroon.

LITERATURE REVIEW

International Labour Organization (ILO) (2019) defines the employed population as all those of working age who, in a short reference period, were engaged in any activity to produce goods or provide services for pay or profit. The notion of pay or profit refers to work carried out in exchange for remuneration payable in cash or in kind. It includes remuneration in the form of wages or salaries for time worked, for work done, or in the form of profits derived from the goods and services produced for sale or barter. In accordance with the international guidelines on employment-related income, this includes remuneration, whether actually received or not, payable directly to the person performing the work or indirectly to a household or family member. The employed population is measured in relation to a short reference period of one week or seven days, to produce a snapshot picture of employment at a given point in time.

According to ILO (2018), employment comprises all persons of working age who during a specified brief period, such as one week or one day, were in the following categories: a) paid employment (whether at work or with a job but not at work); or b) self-employment (whether at work or with an enterprise but not at work). The working age population is the population above the legal working age, but for statistical purposes, it comprises all persons above a specified minimum age threshold for which an inquiry on economic activity is made.

The ILO (2018) definitions of persons in employment include civilian employment plus the armed forces and all those employed. This formal job attachment should be determined in the light of national circumstances, according to one or more of the following criteria: (a) if he or she continued receipt of wage or salary; (b) an assurance of return to work following the end of the contingency, or an agreement as to the date of return; (c) the elapsed duration of absence from the job, which, wherever relevant, may be that duration for which workers can receive compensation benefits without obligations to accept other jobs. For operational purposes, work is only an activity for at least one hour. Persons temporarily not at work because of illness or injury, holiday or vacation, strike or lockout, educational or training leave, maternity or parental leave, reduction in economic activity, temporary disorganization are in paid employment provided they have a formal job attachment. Employers, own account workers and members of

producers' cooperatives are self-employed and classified as at work or not at work, as the case may be. Unpaid family workers at work are self-employed irrespective of the number of hours worked during the reference period.

According to OECD Labour market statistics (2019) employment is a relationship between two parties, usually based on a contract where work is paid for, where one party, which may be a corporation, for profit, non-profit organization, cooperative or other entity is the employer and the other is the employee. Employees work in return for payment, which may be in the form of an hourly wage, by piecework or an annual salary, depending on the type of work an employee does or which sector they are working in. Employees in some fields or sectors may receive gratuities, bonus payment or stock options. In some types of employment, employees may receive benefits in addition to payment. Benefits can include health insurance, housing, disability insurance or use of a gym. Laws, organization or legal contracts typically govern employment. For a country to know the number of people employed in it, it needs to know its employment rate. OECD (2019) defines employment rates as a measure of the extent of use of available labour resources (people available to work). They calculate it as the ratio of the employed to the working age population. Employment rates are sensitive to the economic cycle, but in the longer term, they are influenced by governments' higher education and income support policies and by policies that facilitate employment of women and disadvantaged groups. Employment figures have varied across time and gender. Molly (2013) came out with ten aspects that hinder women evolution in the world of work. First is educational attainment: Most of the children that are not in school right now are girls. Women make up more than two-thirds of the world's illiterate adults (Lopez-Claros cited in Molly, 2013). Second is political participation: Analysts often position that most of the issues on this list are solvable if women had higher levels of political participation. Despite making up more than half the global population, women hold only 15.6 percent of elected parliamentary seats in the world. Third is freedom to marry and divorce. In many countries, young girls are obliged to marry men two or three times their age. According to UNICEF, more than one-third of women aged 20 to 24 were married before they turned 18, which is considered the minimum legal age of marriage in most countries (source: UNICEF cited in molly, 2013). Fourth is access to healthcare: In many countries, a pregnant woman in labour can head to any hospital, confident that she will receive assistance in delivery. That however seems like a luxury to women in developing countries (Source: WHO).

Fifth is feminization of poverty: Women in some countries have no right to own the land on which they live or work. Not only can such a state trap women in abusive marriages, it also contributes to a phenomenon that economists have deemed the "feminization of poverty." More

than 1.5 billion people in the world live on less than one dollar a day, and the majority of those people are women. Sixth is restricted land ownership. In some countries, such as Chile and Lesotho, women lack the right to own land. All deeds must include the name of a man, be it the woman's husband or father. If one of those men were to die, the woman has no legal claim to the land that she might have lived on or worked on all her life. Seven is feticides and infanticide: Expectant parents often say that they do not care if they have a boy or a girl, as long as the baby is healthy. In some countries, such as China and India, a male child is more valuable than a female child is, and this gender bias causes parents to care very much if they have a boy or a girl.

Eight is violence where in 2008, United Nation (U.N). Secretary-General Ban Ki-moon reported that one in every three women is likely "to be beaten, coerced into sex or otherwise abused in her lifetime". Nine is limited mobility: Saudi Arabia, for example, provides the extreme example of limited mobility for women. Women cannot drive cars nor ride on bicycles on public roads. The strict Islamic law in the country prohibits women from leaving the home without a man's permission, and if they do leave the home, they cannot drive a car. Doing so would require removal of their veils, which is forbidden, and it could potentially bring them in contact with strange men, another forbidden practice. Lastly, the tenth point is professional obstacles: Women fought for decades to take their place in the workplace alongside men, but that fight is not over yet. According to the most recent statistics from the US Census, women earn just 77 percent of what men earn for the same amount of work.

Amongst the few existing literature investigating women's employment across time is the work of Jeemol (1989) who discussed the conceptual, definitional and operational problems, which resulted in under-enumeration of female workers in large-scale censuses and sample surveys. Taking the comparable censuses rounds over the period 1961 to 1983, the widely alleged decline in female participation rates was not seen to be substantiated. He concluded that the recent decades showed a shift in the workforce away from agriculture and a trend towards increasing casualization of the workforce in the rural areas. Birgit and Maike (2011) investigated differences in women's employment patterns and family policies in Eastern and western Germany. They found out that, though family policies of the central welfare state remained the same in eastern and western Germany during the last 20 years, the employment patterns of women with pre-school children differed systematically in both regions. It was shown that in women's behaviour regarding employment vis-à-vis childcare, women with young children in both parts of Germany had different employment patterns. These differences were largely explained by differences in the cultural values and models of the family in western and eastern Germany and their interaction with institutional; economic factors in two different

development paths and differences in cultural value orientations in relation to the employment of mothers between West and East Germany.

METHODOLOGY

This study uses the cross-sectional research design. The secondary data was gotten from all available Demographic Health Survey (DHS) data for Cameroon. The available data sets for DHS Cameroon are: DHSVII (2018), DHSVI (2011), DHSIV (2004), DHSIII (1998) and DHS II (1991). This work makes use of the Multivariate and Fairlie decomposition in explaining women's employment differences between groups. The commonly used Oaxaca decomposition method (Blinder et al., 1973) could not be used here to explain the gap in the means of an outcome variable between two groups (for example, between the region and time) due to the fact that our outcome variable (women's employment) is binary in nature. The multivariate decomposition method is an extension of the well-known Oaxaca-Blinder approach to logit, probity and rate, and other models that are intrinsically nonlinear in the parameters. This method has wide applicability in demographic research even though it has not received a great deal of exposure (Powers, 2011). The Fairlie's non-linear decomposition (2005) was also developed as an extension of the Blinder-Oaxaca regression decomposition method (Blinder et al., 1973) for logistic regression (Fairlie 2005) as cited in Van et al. (2012). The Fairlie and the Multivariate decomposition account for differences across groups with binary outcomes which Oaxaca using only continues outcomes cannot capture. However, their differences lie in the fact that Fairlie results are sensitive to the order in which variables are evaluated because of the non-linearity of the logistic regression model (Van et al., 2012). This model can be stated thus:

$$Y_i = \{ \beta^{bif 2010} X_i + \sum^{bif 2010} \text{if DHS2 data set before 2010 and } B^{after2010} X_i + \sum^{after 2010} \text{if DHS data after 2010} \dots \dots \dots 1$$

$$= E+C+CE$$

where

E – Gap in 'endowments' ("explained")

C – Gap in 'coefficients' ("unexplained")

CE is interaction of differences in endowments and coefficients.

The E component is known as the explained component and measures the expected differences in women's employment due to the differences in their predictor level. The decomposition model brings out the C component also known as the unexplained component, which accounts for the sources of discrimination of women's employment in Cameroon.

The Gap Mean Equation

The gaps mean outcomes can be stated as:

$$Y^{b1f2010} - Y^{after2010} = \beta^{b1f2010} X^{b1f2010} - B^{after2010} X^{after2010} \dots\dots\dots 2$$

Where Y= the area and time gap, X=the explained and β =the unexplained source of data set gap differences.

Table 1: Description and measurement of Variables on women’s employment in different time periods equation

Variable	Meaning	Description	Expected sign
T	Time	Before the MDG 2010 and after the MDG 2010	
μ	Error term		

FINDINGS AND DISCUSSION

To compare women’s employment in Cameroon before and after the MDG (2010), use is also made of logistic regression (Table 2) Failie (Table 2) and the Multivariate (Table 4) decomposition model. Table 2 that carries the logit results always presented alongside the Fairlie results further presents the determinants of women’s employment in Cameroon. According to this model, the significant determinants of women’s employment in Cameroon are fertility, education, wealth, age, religion, husband’s education, husband’s occupation, marital status, residence, age at and first marriage.

Table 2: logistic regression model for the determinants of the differences in women’s employment in Cameroon

Variables	Logistic regression
Dependent variable(women’s employment)	
Fertility	0.4961386*** (0.0878273)
Education	
Primary	0.5986107*** (0.0882799)
Secondary	0.033139*** (0.0058341)
Tertiary	0.8960393*** (0.1664247)
Base group (No education)	
Wealth	
Poorer	-0.3522036*** (0.0913779)
Middle	-0.7274195*** (0.1015676)
Richer	-0.6023475*** (0.1214059)

		Richest	-0.3533964** (0.1460574)
	Base group (Poorest group)		
Age			-0.0482725*** (0.0178265)
Religion	Protestant		0.7212284*** (0.195915)
	Other Christians		0.4175688** (0.195437)
	Muslims		0.7055038*** (0.2144942)
	Animists		-0.5649176*** (0.2004564)
	None		0.1941467 (0.2713129)
	Base group (Catholic)		
Husband education	Primary		0.386438*** (0.0903574)
	Secondary		0.3657644*** (0.0997434)
	Tertiary		0.2115494** (0.1265895)
	Base group (No education)		
Marital status Resident2			-0.4741531*** (0.0898075)
Age at first cohabitation			0.0566966*** (0.0137503)
Constant			-2.485766*** (0.2931883)
Number of observations	7234		
Prob> chi2	LR chi ² (26) = 1171.02 0.0000 Log likelihood = -4393.0251 Pseudo R ² = 0.1176		

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

Source: Computed by authors using Stata 16

This result shows that, fertility has a positive coefficient (0.4961386). The logit estimate for a unit increase in fertility for employed women given that other variables are held constant is 0.4961386. This implies that if a subject's fertility increases by one, the log-odds for being employed relative to not being employed will be expected to increase by 0.496 units holding other variables constant. Again, education, religion, husband's occupation and age at first marriage all positively and significantly influence women's employment in Cameroon. On the

other hand, wealth, age, Muslim and resident in an urban area all negatively, statistically and significantly influenced women's employment in Cameroon. The discussions on the connection of these variables to women's employment have been fully established under table 8 and 9 of this work.

The result of the Fairlie decomposition for women's employment before 2010(1991, 2004 and 2008) when the Millennium Development Goals (MDG) that strongly advocated for gender equity in employment was developed and after 2010 (2011 and 2018 DHS data set) is presented on Table 3. This result specifies the factors that accounts for differences in women's employment before and after 2010 in Cameroon. The changes in composition (independent variables) of the women on an overall account for a 21.4% differences in women's employment between results of DHS data set before and after 2010.

Table 3: Fairlie decomposition results on the differences in women employment before and after 2010

Variables Dependent variable(women's employment)	Fairlie Decomposition
Fertility	0.0466439*** (0.0064193)
Education	-0.015983 ** (0.0027805)
Wealth	0.0076957** (0.0029224)
Age	0.0046346** (0.0017422)
Husband education	-0.0081299* (0.0022968)
Religion	-0.0089177*** (0.0012695)
Husband occupation	0.0169082** (0.0030905)
Marital status	-0.0055259 (0.0008183)
Ages at first cohabitation	-0.0072395* (0.0014156)
Resident	-0.04056** (0.0081734)
Number of observation	13,361
Difference	-0.21404224
Total explained	0.05109963

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

Source: Computed by authors using Stata 16

The largest contributor to differences in women's employment before and after 2010 is fertility (0.0466439), which significantly increases the differences in women's employment before and after 2010 by 4.75%. Fertility of women in Cameroon has significantly led to an increase in women's employment in Cameroon as specified in the logistics model on Table 4.13 above and has greatly increased women's employment thus; increase the women's employment gap before and after 2010.

Husband's occupation (0.0169082) has also increase the gap in women's employment before and after 2010. This is because results from this work shows that husband's occupation positively affects women's employment. The wealth (0.0076957) status of the women also significantly contributes to increase of the gap of women's employment before and after 2010. This is because women with high wealth status are most likely to be women who are working thus an increase in the gap of women's employment before and after 2010. Lastly, age (0.0046346) also significantly increased the gap between women's employment before and after 2010.

On the other hand, education (-0.015983) significantly reduces the gap between female employment before and after 2010 in Cameroon. The fact that more women are educated after 2010 in Cameroon has significantly reduced the number of working women, and although education positively affect women employment in the formal sector, it negatively affects the employment in the informal sector. This creates more unemployed women who would have been gainfully employed in the agricultural sector if they were unemployed. This thus goes a long way to reduce the gap in women's employment before and after 2010.

Husband's education (-0.0081299) also significantly reduces the gap of women's employment before and after 2010. The more husbands are educated, the less their wives are willing to be employed in the agricultural sector that employs the majority of women thus a reduction in their employment level. This goes a long way to reduce the gap in female employment before and after 2010. Religion (-0.0549179) significantly reduce the gap in women's employment before and after 2010. The result from this study shows that, Catholics women compared to those from other religion are more likely to be employed. However, with the wild spread of Pentecostalism, some women leaving Catholics Church with a strong doctrine on the virtue of work to some Pentecostal churches believe God can provide everything for them if they pray from Monday to Sunday. They thus see little or no need for work especially that which is below their standards with the prosperity gospel they hear daily. This goes a long way to reduce the gap between women employment before and after 2010.

Age at first cohabitation (-0.0072395) also reduces the gap in women's employment. More women now marry at later age though this increases employment in the formal sector; it

reduces employment in the informal sector thus reducing the gap in women's employment before and after 2010. Being resident in urban areas (-0.0405642) significantly reduce the difference in women's employment before and after 2010. This is because being resident in urban areas reduces the likelihood of the women working compared to being resident in rural areas. Thus as more women after 2010 turn to be resident in urban area due to rural urban migration, their employment fall thus closing the gap between women's employment before and after 2010.

The multivariate decomposition model was also used to investigate differences in women's employment before and after 2010. To account for differences in women's employment resulting from differences in the coefficients of the dependent variables, we included various measures of socioeconomic background: fertility, education, wealth, age, husband's education, religion, husband's occupation, marital status, age at first cohabitation and residence (Table 4). The result shows that 6.7% of increase in the gap of women's employment before and after 2010 can be insignificantly attributed to differences in characteristics (E). That is, differences in data collected before 2010(1991, 1998 and 2004) and after 2010(2011 and 2018).

Table 4: Multivariate decomposition results on the differences in women employment before and after 2010

Variables		Multivariate Decomposition	
Differences in characteristics(E)		0.014477 (0.016278)	
Differences in coefficient(C)		19885*** (0.017971)	
Total differences(R)		0.21333*** (0.0074452)	
Variables		Differences in	Difference in
Dependent variable(women's employment)		Characteristics(E)	Coefficients
Fertility		-0.019834*** (0.0075542)	-0.24724*** (0.082764)
Education	Primary	0.0094066** (0.0038674)	0.0052037 (0.011638)
	Secondary	0.0065729** (0.0032321)	-0.0033061 (0.014091)
	Tertiary	0.0018958** (0.000088261)	-0.0030044 (0.0028291)
Wealth	Base group (No education)		
	Poorer	0.000013174 (0.00033506)	0.016737** (0.0077295)

	Middle	0.00013148 (0.00010127)	0.027006*** (0.008718)	Table 4...
	Richer	-0.0035943** (0.0017255)	0.0095471 (0.0079789)	
	Richest	-0.0066377** (0.0029279)	-0.005005 (0.0080789)	
	Base group (poorest)			
Age		0.0005288 (0.00073131)	0.61079*** (0.1405)	
Religion	Protestant	0.0051125** (0.0020186)	0.027939*** (0.0049707)	
	Other Christians	-0.00060995** (0.00027651)	-0.0041718* (0.0022335)	
	Muslims	0.0010053 (0.011938)	0.075046*** (0.017181)	
	Animists	0.00069255 (0.0004397)	0.0028601*** (0.00092125)	
	None	-0.0000913** (0.0000418)	0.000233 *** (0.00097492)	
	Base group (Catholic)			
Husband education	Primary	0.001807 (0.00083306)	0.0096239* (0.011613)	
	Secondary	0.0036074 (0.0024849)	-0.000263*** (0.014195)	
	Tertiary	0.0036074 (0.0024849)	0.0026793* (0.0051564)	
	Base group (no education)			
Age at first cohabitation		0.0033331 (0.0014106)	-0.14522 (0.068876)	
Resident2		0.011204*** (0.0041764)	0.0055758** (0.0021982)	
Constant			0.18618*** (0.058636)	
Number of observations	30103			

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

Source: Computed by authors using Stata 16

In line with the Failie's results on Table 3, fertility (-0.019834), husband education, religion, all significantly reduces the differences in women's employment before and after 2010. On the other hand, education, wealth, religion, age at first cohabitation and residence all significantly increase the difference between women's employment before and after 2010. The results equally show that 93.2% of differences in women's employment before and after 2010 are significantly attributed to the increase in the differences in coefficients(C). That is, differences because of their individual coefficients (fertility, education, wealth, age, husband's

education, religion, husband's occupation, marital status, age at first cohabitation and residence). In particular, fertility (-0.24724) and age at first cohabitation (-0.14522) significantly reduced the differences in women's employment before and after 2010. Wealth, religion and residence (0.0055758) significantly increased the differences in women's employment before and after 2010. Detailed justification of the contributions of these variables to the gap in women's employment before and after 2010 was done under the Fairlie results. Therefore, since the results are similar, discussing the results in this section will be duplication.

Disc

The differences in women's employment across periods in Cameroon

Results showed significant differences in women's employment between years, it can be justified as continuous sensitization and promoting of gender equity in the workplace emanating from the MDG, which has led to a drastic increase in women's employment especially in managerial positions. The detail results show that these differences in women's employment before and after 2010 is outstanding due to differences in fertility, husband's education and religion which all significantly reduced the differences in women's employment before and after 2010. On the other hand, education, wealth, religion, age at first cohabitation and residence all significantly increased the difference between women's employment before and after 2018. Results are in line with the findings of Birgit and Maike (2011) who found out that, though family policies of the central welfare state remained the same in eastern and western Germany during the last 20 years, the employment patterns of women with preschool children differed systematically in both regions. The advent of the MDG made more women to be employed in decent jobs, which initially they never had access. The issue of gender balance in employment list has become recurrent in work places in recent years. Employers try to compromise some of the shortcomings of women workers like maternity leave, breastfeeding break and no night shift promulgated by the Cameroon labour law just to get a work place with a staff of both gender. Many scholarships now give preferences to female applicants in a bit to promote female employment especially in quality jobs as promulgated by the MDG and now the sustainable development goal (SDG) in Cameroon.

CONCLUSION

This work investigates differences in Women's employment across periods in Cameroon. It compared women's employment in different periods in Cameroon. This objective also made use of Pooled data from the 1991, 1998, 2004, 2011 and 2018 Cameroon DHS data set. The Multivariate and Fairlie decomposition models were used to analyse the data. The

results show that there exist significant differences in women's employment before and after 2010. The largest contributor to differences in women's employment before and after 2010 is fertility, which significantly increases the differences in women's employment before and after 2010 by 4.75%. Education, wealth, religion, age at first cohabitation and residence also significantly increase the difference between women's employment before and after 2010. Husband's education and religion significantly reduce the differences in women's employment before and after 2010. We therefore reject the null hypothesis that there exists no significant difference in women's employment across time, thereby accepting the alternative and concluding that there exist differences in women's employment for periods before and after 2010.

RECOMMENDATIONS

The study recommends promotion of women employment in both the formal and informal sectors in Cameroon as results predicts an overall drop in Women's employment with specify increase in Women's employment in the formal sector and fall in the informal sector. That is results show that women employment in the formal sector had significantly increased while employment in the informal sector had dropped as more women moved from the rural areas and get more education, they turn to shift from informal to the formal sector of employment. Increase women employment in formal and informal sector can be done through educational and career counselling, provision of start-up capital, adult literacy and offering entrepreneurship classes to these women. The promotion of women's employment in all sectors can also be ensured with the strict implementations and follow-up of policies aimed at ensuring the promotion of women's employment in Cameroon like the Cameroon labour code. This document puts forward attractive policies intended to promote women employment especially in the formal sector in Cameroon. For example, every pregnant woman is entitled to maternity leave for a period of 14 weeks, starting 4 weeks before birth and one-hour breastfeeding break. Night work (from 10 pm to 6 am) in industries are prohibited for women, except when their work consists of management duties or they work in services not involving manual labour. An employer cannot dismiss a woman because of her pregnancy or during maternity leave. However, a woman worker whose pregnancy is medically certified or who is nursing her child can terminate her employment contract without notice and without being obliged to pay compensation on that account. Employees are generally entitled to at least 5 days of paid sick leave per year. Employers are responsible for paying medical treatment of sick or injured employee at work.

SCOPE FOR FURTHER STUDIES

This work recommends for further studies research on the time differences in women's entrepreneurship Cameroon. It also recommends a study comparing male and female employment and entrepreneurship in Cameroon. This study also suggests another study that covers all of CEMAC region for a broader view on the differences in Women's employment across time. It is also recommended that another study be carried out to capture time differences in women's occupation. This will enable us not only to assess the differences in women's employment status across time as a whole but also in different occupations. Lastly and most importantly, this study recommends a further research on the differences in women employment across time in the formal sector and informal sector of Cameroon. This might change the trend of the results found in this study as most documents advocating for women's employment now focused on decent employment or employment in the formal sector.

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APPENDIX

Summary Statistics

Variable	Observation	Mean	Std. Dev.	Min	Max	
Women employment	48,931	0.5754021	0.4942869	0	1	
Fertility	50,131	2.790988	2.855486	0	18	
Health(BMI)	22,310	2581.68	1246.83	1245	9999	
Education	No education	50,131	0.205641	0.4041734	0	1
	Primary	50,131	0.346193	0.4757604	0	1
	Secondary	50,131	0.405857	0.491062	0	1
	Tertiary	50,131	0.042309	0.2012955	0	1
Wealth	Poorer	40,759	0.238377	0.4260959	0	1
	Poorest	40,759	0.188621	0.391212	0	1
	Middle	40,759	0.170809	0.3763465	0	1
	Richer	40,759	0.164405	0.3706476	0	1
	Richest	40,759	0.175618	0.3804992	0	1
Age	35,604	28.77109	10.58905	15	64	
Husband's education	No education	31,245	0.159226	0.3658921	0	1
	Primary	31,245	0.257033	0.4370048	0	1
	Secondary	31,245	0.277644	0.4478442	0	1
	Tertiary	31,245	0.306097	0.4608779	0	1
Religion	Catholics	43,419	0.367834	0.4822215	0	1
	Protestant	43,419	0.333379	0.4714262	0	1
	other Christians	43,419	0.129851	0.3361433	0	1
	Muslim	43,419	0.087750	0.2829337	0	1
	Animist	43,419	0.013635	0.1159698	0	1
	None	43,419	0.067551	0.2509768	0	1
Husband's occupation	Do not work	33,763	0.142079	0.3491359	0	1
	professional/technical/ managerial	33,763	0.257033	0.2174491	0	1
	Clerical	33,763	0.042769	0.2023382	0	1
	Sales	33,763	0.104464	0.3058654	0	1
	agriculture-self employment	33,763	0.332376	0.4710718	0	1
	agriculture employee	33,763	0.041169	0.1986846	0	1
	household and domestic	33,763	0.008264	0.0905287	0	1
	Service	33,763	0.058022	0.2337887	0	1
	skilled manual	33,763	0.138791	0.3457334	0	1
	unskilled manual	33,763	0.082309	0.274839	0	1
Marital status	never married	35,604	0.298337	0.4575347	0	1
	currently in union	35,604	0.648719	0.4773772	0	1
	formally in union	35,604	0.052944	0.2239238	0	1

Age at first cohabitation		33,945	17.07804	5.506687	0	57
Age at first sex		36,588	14.73109	6.141504	0	49
Age at first birth		34,907	21.50878	7.309356	10	49
Life time sex partners		36,047	3.573057	3.589169	1	90
Contraceptive use		41,539	0.712679	0.4525177	0	1
Skip meal		14,677	0.481434	0.4996722	0	1
Residence	Urban	50,131	0.514173	0.4998041	0	1
	Rural	50,131	0.4858271	0.4998041	0	1

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