

# Women economic empowerment and violence: Evidence from Cameroon

## *Autonomisation économique des femmes et violences : Evidence du Cameroun*

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**Abstract:** This study aims to examine the effects of Women Economic Empowerment on violence in Cameroon. Data used are from 2018 Demographic Health Survey (DHS). A Two Stage Residuals Inclusion is used for multivariate analysis. Two types of violence are considered. These are domestic violence and intimate partner violence. Women's economic empowerment (WEE) significantly increases the incidence of domestic and intimate partner violence in Cameroon. The effects of women's capacity to formulate and implement economic decisions are higher for intimate partner violence while the effects women's ability to thrive and progress economically are higher for domestic violence. State interventions should encourage communication, collaboration

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and shared decision making within the couple especially if the woman is economically autonomous.

**Keywords:** Women's economic empowerment, domestic violence, intimate partner violence, Cameroon, 2SRI.

**Résumé :** *Cette étude vise à examiner les effets de l'autonomisation économique des femmes sur la violence au Cameroun. Les données utilisées proviennent de l'enquête démographique et de santé (EDS) de 2018. Une estimation en deux étapes avec inclusion des résidus est utilisée pour l'analyse multivariée. Deux types de violence sont considérés : la violence domestique et la violence conjugale. L'autonomisation économique des femmes (WEE) augmente significativement l'incidence de la violence domestique et de la violence conjugale au Cameroun. Les effets de la capacité des femmes à formuler et à mettre en œuvre des décisions économiques sont plus élevés pour la violence conjugale, tandis que les effets de la capacité des femmes à s'épanouir et à progresser sur le plan économique sont plus élevés pour la violence domestique. Les interventions de l'État devraient encourager la communication, la collaboration et la prise de décision partagée au sein du couple, surtout si la femme est économiquement autonome.*

**Mots clés :** *Autonomisation économique des femmes, violence domestique, violence entre partenaires intimes, Cameroun, 2SRI.*

**JEL Code:** D10; I31.

## 1. INTRODUCTION

Violence against women particularly intimate partner violence and sexual violence is a major public health problem and a violation of women's human rights (WHO, 2021). Among all forms of violence against women, intimate partner violence (IPV) is the most common, with significant (public) health and societal impacts. In addition to the reduced agency of women, which is a human rights issue in itself, the impact of violence against women includes the costs associated with poor physical and mental health (Bulte and Lensink, 2019). It also impacts women's health, hampers their ability to participate fully in society, affects their enjoyment of sexual and reproductive health and rights, and is a source of tremendous physical and psychological suffering for both women and their families. It is estimated that between 38% and 40% of murders of women are committed by intimate partners (WHO, 2021). According to the United Nations (Declaration on the elimination of violence against women. New York: 1993), intimate partner violence refers to behavior by an intimate partner or ex-partner that causes physical, sexual, or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviors.

The estimated 2018 global prevalence of physical and/or sexual intimate partner violence reveals that Worldwide, almost one third (27%) of women aged between 15-49 years who have been in a relationship report that they have been subjected to some form of physical and/or sexual violence by their intimate partner. This prevalence ranges from 20% in the Western Pacific, 22% in high-income countries and Europe and 25% in the WHO Regions of the Americas to 33% in the sub-Saharan Africa region (WHO, 2021). In Cameroon, the 2018 Demographic and Health Survey (DHS) reports that 63 % of women in

relationships are confronted with intimate partner violence. In fact, 34 % and 10 % of them are respectively confronted with physical and sexual violence. While 19 % of women in relationships have experienced emotional violence from their intimate partners. In addition, 45% of women report having suffered injuries because of acts of physical or sexual violence committed by a spouse. These different figures reveal that the wellbeing of women in Cameroon remains a matter of concern. Although intimate partner violence is the most common form of violence encountered in the literature, it is important to note that violence can also be committed by household members other than the intimate partner. In Cameroon, 14% of women reported physical violence from their mother, 12% from their father, 8% from their siblings, and 5% from other relative (Institut National de la Statistique (INS, 2020)

At the International Conference on Population and Development in 1994, States recognized the need to eliminate all forms of violence against women. In this line, the United Nations strongly recommended economic empowerment of women as a protective factor for violence against women in its Beijing declaration. Kabeer (1999) notices that women empowerment encompasses challenging existing social hierarchies that favor men's decision-making roles, contestation of power, and perceiving a sense of control is a central and definitional requirement of empowerment. This author therefore provides a seminal definition of the concept of Women's Empowerment that involves access to a resource, the ability to make choices and to control household resources. This definition was extended by Alsop et al. (2006) who describe empowerment as "a group's or individual's capacity to make effective choices, that is, to make choices

and then to transform those choices into desired actions and outcomes”.

Women’s Economic Empowerment (WEE) is more narrowly defined than women’s empowerment (Quisumbing et al., 2016). According to Mason and Smith (2003) who examined multiple measures of married women’s empowerment in five Asian countries (India, Malaysia, Pakistan, the Philippines, and Thailand), women's economic empowerment is defined as having the ability to participate in the family’s economic decisions, whether major or minor. Golla et al. (2011) argued that a woman is economically empowered when she has both the ability to succeed and advance economically and the ability to act on those decisions. These authors underline that, to succeed and advance economically, women require skills and resources to compete in markets, as well as fair and equal access to economic institutions. Also, to have the power and agency to benefit from economic activities, women need to have the ability to make and act on decisions and control resources and profits. In the same line, Laszlo et al. (2020) argued that to increase a woman’s economic empowerment, she needs access to resources, the ability to exercise choice, and these need to be translated into achievements.

Golla et al. (2011) mentioned that effectively measuring women’s economic empowerment requires considering indicators of both women’s economic advancement and women’s power and agency. Therefore, Buvinic and Furst-Nichols (2015) mentioned that three types of outcomes can be used to assess women's economic empowerment, namely: direct, intermediate and final outcomes. In the same line, Quisumbing et al. (2016) use this approach to make a distinction between objective and subjective measures of women’s economic empowerment. Here, objective measures refer to the interpretations of women’s

beliefs and behaviors from the outsiders, while subjective measures refer to the interpretation from the women's perspective. In addition, Laszlo and Grantham (2017) propose a distinction between direct and indirect measures of women economic empowerment. The authors define indirect measures as measurable factors that relate to the lives and activities of women, whereas direct measures refer to women's subjective experiences of empowerment.

Theoretically, the effect of economic status on intimate partner violence remains ambiguous. While an increase in household economic resources attributable to a woman may reduce economic stress and intimate partner violence, it may also introduce additional tension and struggle within a household (Bhattacharyya et al., 2011). Therefore, several frameworks have been developed for the analysis of the relationship between Women Economic Empowerment and domestic violence with inconclusive results. The marital dependency theory in sociology asserts that women who are economically dependent on their partner are at greater risk of domestic violence (Vyas and Watts, 2009). Contrarily, status inconsistency theories claim that tension and stress in relationships arise when husbands and wives occupy atypical combinations of status characteristics (Hornung et al., 1981).

In the economic perspective, household bargaining models suggest that women's wellbeing within the household is determined by their existing alternatives in the case the marriage ends. The more educated and wealthier a woman is, the higher her chances of ending an unhappy marriage or changing the terms of the marriage in favor of her, with the threat of divorce (Dildar, 2020). Therefore, the more a woman is economically empowered, the more she would be protected from intimate partner violence.

Using such a framework Farmer and Tiefenthaler (1997) predict using a non-cooperative model of domestic violence that women's incomes and other financial support received from outside the marriage (family, welfare, shelters, divorce settlements, etc.) will decrease the level of violence in intact families because they increase the woman's threat point.

In the same vein, Tauchen et al. (1991) demonstrate using a Nash-bargaining model, that changes in male and female income have the opposite effect on domestic violence. In exchange for an increase in money paid to his wife, a man with a higher income may engage in more violence (he is able to "buy" more violence). A woman's increased income, on the other hand, provides an incentive for her partner to reduce violence so that her reserve utility is assured.

Empirical studies examining the relationship between women's economic empowerment and domestic violence present mixed results. Some studies found that women economic empowerment is a protective factor for violence against women (Alonso-Borrego and Carrasco, 2017; Bhattacharyya et al., 2011; Bueno and Henderson, 2017; Dalal, 2011; Dildar, 2020; Farmer and Tiefenthaler, 1997; Lenze and Klasen, 2017; Oduro et al., 2015; Quimbo and Javier, 2013; Raj et al., 2018; Ranganathan et al., 2021; Stöckl et al., 2021). This protective effect is attributed to a better household bargaining position with personal income (Dildar, 2020). Other studies show that women's economic empowerment increases the incidence of domestic violence within the household (Ericsson, 2019; Kishor and Johnson, 2004). It is argued here that Women's Economic Empowerment increases IPV because male partners see their breadwinner roles and masculinity challenged.

Furthermore, research has shown that anti-IPV interventions have been effective, but the effectiveness is ambiguous and heavily biased in favor of high-income nations. Then developing countries need context-specific studies on IPV due to their diverse cultures and social contexts, since its risks and effects are relatively unknown there (Bulte and Lensink, 2019). Even though domestic violence remains a major human rights and health problem, rigorous evidence concerning this issue remains scarce in Sub Saharan African countries in general and French speaking African countries especially. Also, we are not aware of any study that tries to investigate the empirical link between Women's Economic Empowerment and violence against women in a Central African country. To fill this gap, this study aims to examine the effects of Women's Economic Empowerment on violence against women in Cameroon.

This study contributes to the literature at several levels. Firstly, to the best of our knowledge, it's the first empirical investigation to analyse the determinants of violence in Cameroon. Indeed, despite the growing interest in the issues of violence and women's empowerment, studies on the relationship between women's empowerment and violence are almost non-existent in Cameroon. This research will help to fill the gap. Secondly, a distinction is made between domestic violence and intimate partner violence. Indeed, studies on the effects of women's economic empowerment on violence against women focus on either domestic violence (Alonso-Borrego and Carrasco, 2017; Lenze and Klasen, 2017; Quimbo and Javier, 2013) or intimate partner violence (Bueno and Henderson, 2017; Bulte and Lensink, 2019; Chetty et al., 2020; Dalal, 2011; Ranganathan et al., 2021; Stöckl et al., 2021). However, information on the factors that explain both forms of violence are crucial for



improving the status of women in different countries. Thirdly, this paper assesses Women's Economic Empowerment by several indicators as in previous studies but considers the endogeneity of women employment. In fact, an overview of the literature reveals that previous empirical studies that consider indirect measures of women's empowerment do not consider the endogeneity of women's participation in the labor market. This type of analysis can lead to the misleading conclusion that women with higher earnings or those who have a paid work are more likely to experience violence (Bhattacharyya et al., 2011).

## **2. PATTERNS OF WOMEN ECONOMIC EMPOWERMENT IN CAMEROON**

In Cameroon, the Millennium Development Goals set for the promotion of gender equality and women empowerment of women by 2015 in Cameroon have not been met, although the trend is increasing (UN Women, 2017). In fact, while it is true that people are equal before the law in Cameroon, the fact remains that many women are marginalized and still occupy a strongly domestic role in society. Indeed, the fourth Cameroonian Household Survey reveals that women remain marginalized in terms of the volume and quality of employment: they are less active than men (64% against 74%); more affected by unemployment and underemployment (79 % against 63 %). Furthermore, while 39% of the national population lives below the poverty line, this rate rises to 51.5% for women. Also, it is noted that boys have privileged access to education: their gross enrolment rate is 125% in primary school (110% for girls) 65% of them are enrolled in secondary school (53% for girls). Moreover, the fifth Cameroonian Health and Demographic Survey reveals that, in 2018 the proportion of individuals owning and

using an account whether in a bank or other financial institution, is higher among men than women (18% vs. 10%).

### **3. METHODOLOGY**

#### **3.1. Study data**

The data used for this study comes from the 2018 Demographic Health Survey (DHS) conducted by Cameroon's National Statistics Institute (INS), with support from UNFPA, UNICEF, the World Bank and USAID. A “Domestic violence module” was introduced to capture violence against people in the household and was restricted to women between the ages of 15 and 49.

Since the focus of this study is on intimate partner violence, where the term ‘intimate partner’ includes cohabiting partner, analysis samples are limited to women who were either married or cohabitating (living with her partner) at the time of interview. In addition, violence questions were asked of women only in a subsample of households. This explains the fact that, in comparison to the full sample of interviewed women, the sample for analysis is much smaller. Indeed, In Cameroon, the Domestic violence module was administrated to one in two households (INS, 2020). In accordance with the World Health Organization (WHO) (2001) ethical guidelines for conducting research on domestic violence, only one eligible woman per selected household receives the questions on violence. Using the Kish grid (Kish, 1949), this subsample was conducted in the field in a randomized manner. The purpose of this subsampling within households is to maintain confidentiality and ensure respondents’ security.

#### **3.2. Methods**

### 3.2.1. Measurement of Women Economic Empowerment

The literature, as well as the structure of the DHS database used, inspired the selection of the two categories of WEE measures in this study: direct and indirect measures (Golla et al., 2011; Laszlo and Grantham, 2017):

Direct measures, also called Power and Agency Indicators, measures women's capacity to formulate and implement economic decisions. It includes: (i) women autonomy (which refers to the woman's ability to obtain information and make decisions about her own concerns) measured using mobile phone for financial transactions, the use of internet (ii) women economic decision-making indicators measured by women's participation in general household purchases

Indirect measures or Economic Advancement Indicators measure the women's ability to thrive and progress economically. It includes: (i) skills measured by women educational level (ii) Productivity measured by women participation in labor market (iii) Prosperity measured by the woman's ownership of house, land and an account in a financial institution and the household wealth.

For each of these two categories, an index was constructed to synthesize the information provided by the different variables used. The construction of these indices follows the steps proposed by (Ewerling et al., 2017; Haque et al., 2012). First, all the indicators that make up each of the indices are transformed into binary variables. The synthetic index is then the arithmetic sum of these binary variables.

The direct synthetic index ( $WEE_D$ ) is therefore the sum of the power and agency indicators of women's economic empowerment and the indirect synthetic variable ( $WEE_I$ )

is the sum of the economic advancement indicators. However, to harmonize the evaluation of women's economic empowerment in its two dimensions, an adjustment is made using the method proposed by the UNDP, in 2005, in the construction of the human development index as follows:

$$WEE_{DA} = \frac{WEE_D - \min(WEE_D)}{\max(WEE_D) - \min(WEE_D)} \quad \text{and}$$

$$WEE_{IA} = \frac{WEE_I - \min(WEE_I)}{\max(WEE_I) - \min(WEE_I)}$$

A global index of women's economic empowerment ( $WEE_G$ ) is obtained by averaging the scores of the direct and indirect synthetic indices adjusted as follows:

$$WEE_G = \frac{1}{2}(WEE_{DA} + WEE_{IA})$$

The scores obtained for the three calculated indices are grouped into three categories indicating whether women's economic empowerment is: low, medium, or high. Finally, Cronbach's alpha is calculated to assess the internal consistency or reliability of the overall index.

### 3.2.2. Measurement of Violence

Violence considered includes emotional, physical, and sexual violence. *Emotional violence* is when women were ever humiliated, threatened with harm, insulted, or made to feel bad. *Physical violence* is when women were ever been pushed, shook, or threw something, slapped, punched with fist, or hit by something harmful, twisted

arm or pulled hair, kicked, or dragged, tried to be strangled or burnt, threatened, or attacked with knife/gun or other weapons. And *sexual violence* is when women were ever been physically forced into unwanted sex, physically forced to perform sexual acts when not wanted, forced to others unwanted sexual acts.

These three types of violence, emotional, physical, and sexual, were grouped into two main indexes: domestic violence index (DV) and intimate partner violence index (IPV), which served as the dependent variables in our regression study. DV is used when women experienced any type of violence by any member of the household, including her partner/husband. IPV is used when women experienced any type of violence by her husband/partner only. Therefore, Domestic Violence (DV) is captured a binary variable taking the value 1 if a woman experiences any type of violence from any member of the household and 0 otherwise; while intimate partner Violence (IPV) is captured by binary variable taking the value 1 if a woman experiences any type of violence from her intimate partner and 0 otherwise.

Then, the study population included 4055 women who have experienced domestic or intimate partner violence. It represents 50.31% of the sample of all married women or women living with a partner.

### 3.3 Econometric specification

Domestic violence (or intimate partner Violence) is depicted as follows:

$$DV / IPV = \beta_0 + \beta_1 Working\_status + \beta_2 WEE + \beta_3 Control\_variables + \varepsilon \quad (1)$$

The dependent variables (DV/IPV) are binary variables measuring whether the woman has experienced domestic (DV) or intimate partner violence (IPV). The key independent variables are Women Economic Empowerment (WEE<sub>G</sub>, WEE<sub>D</sub> and WEE<sub>I</sub>) and women's working status. However, studies analyzing the association between women empowerment and domestic violence underline the endogeneity of women employment when included as an indicator of women economic empowerment. Bhattacharyya et al. (2011) argue that violence may inhibit women's participation in employment because of its physical and mental consequences. Also, abused women are more likely to seek paid employment (Alonso-Borrego and Carrasco, 2017; Staggs and Riger, 2005; Tolman and Wang, 2005). Then, estimates which do not consider that are likely to overestimate the effect of women's income/employment status on domestic violence (Bhattacharyya et al., 2011). Because of this potential endogeneity of the woman working status, a Two-Stage Residuals Inclusion (2SRI) strategy proposed by Wooldridge (2010) is employed to estimate the effects of Women Economic Empowerment on violence. Specifically, in the first stage, the potentially endogenous variable *woman's working status* is regressed on controls variables as well as a set of instrumental variables as define below:

$$Women\_working\_status = \gamma_0 + \gamma_1 Instruments + \gamma_2 Control\_variables + \mu$$

(2)

Equation (2) is estimated using a Probit model. Following the literature, the *cluster average of women's working status* is used as an instrument for women's working status. This variable is created by calculating the average of the working women in the cluster while excluding the woman considered to eliminate an in-built correlation.

According to Dildar (2020) and Lenze and Klasen (2017), *cluster average of women's working status* could be a proxy for local job prospects for women, unmeasured beliefs and attitudes that affect women's employment, and network initiatives that help women find work. It measures therefore the influence of the average employment rate in the woman's immediate area on her own employment performance.

In the second stage, in addition to the potential endogenous variable *women's working status*, equation (1) includes the residual term from equation (2) as an additional regressor as below:

$$DV / IPV = \beta_0 + \beta_1 \text{Working\_status} + \beta_2 \text{WEE} + \beta_3 \text{Control\_variables} + \delta \hat{u} + \varepsilon \quad (3)$$

The resulting equation (3) is estimated using a Probit model. The significance of the coefficient  $\delta$  determine whether women's working status is endogenous or not. If it is not endogenous, if  $\delta$  is significant, it will therefore be worthwhile to evaluate the relevance our instrument used. Control variables include:

(i) Husband and wife characteristics such as women's age, partner's employment status, age and education difference between partners. These variables are chosen because they are among the demographic factors of men and women that may contribute to violence or its prevention. Indeed, in an analysis of the determinants of violence in 15 countries, Abramsky et al. (2011) found that younger age of women was strongly associated with increased risk of violence in all the countries. They also found that inequality in educational level between a woman and her partner may increase her risk of experiencing violence. This result is also true for Alonso-Borrego and Carrasco (2017) in Jordan, who found that women who have more education than their partners have higher risk of

emotional abuse, while the risk of any abuse is lower for those whose partners are more educated. For Lenze and Klasen (2017), the age difference between the spouses is positively linked to violence.

(ii) Household characteristics including number of household members, area of residence and number of co-wives. These variables describe couple living' environment which can be a source of stress. Lenze and Klasen (2017) found that more people in the household cause more social stress; therefore, household size has a positive effect on violence. Several studies found that number of co-wives has a positive effect on violence. They explained in many manners. Husband can use violence for controlling wives in polygamous marriages (Hassouneh-Phillips, 2001) or the addition of wives causes significant stress as it constitutes a change in family and economic structure (Al-Krenawi, 1999).

(iii) Attitudes towards violence against women. The attitude accepting or justifying violence and aggression of the woman is found as an individual factor which can be linked to a greater likelihood of intimate partner violence (IPV) perpetration (Capaldi et al., 2012). Women who had attitudes supportive of a husband beating his wife are likely to experience violence (Abramsky and al., 2011)

(iv) Women's involvement in decisions related to husbands' earnings. Due to the fact that salary (earnings in general) is a taboo subject in most couples, this variable expresses the level of trust and attachment that exists between them. The violence prevalence can be affected by this.

For national representativeness and to account for nonresponses, domestic violence-specific weights are used.



## **4. RESULTS AND DISCUSSION**

### **4.1. Bivariate Analysis**

This study includes 48.24% of women who have experienced domestic violence and 41.23% of women who have experienced intimate partner violence. Table 1 presents the descriptive statistics of the variables used in this study and results of independence. It shows that 34% of respondents have a low level of economic empowerment, 34% have a middle level and 31% have a high level. Women with a middle level of economic empowerment are more likely to experience violence compared to women with a low or a higher level. A same trend is observed while considering power and agency indicators of economic empowerment. However, the rates of violence are higher among women with a low level of economic empowerment when economic advancement indicators are considered. Totally, 61.67% of women participate in decision making related to major household purchases, 63.08% use a mobile and only 21.29% use the internet.

Among women, 69.74% have a paid job, 62.64% live in a poor household and 74.32% went to school. On average, the women surveyed are young i.e., 22% are under 25 years old, 38% are between 25 and 35 years old and 39% are over 35 years old. In addition, 53.38% of the women said they engaged in decisions related to their husbands' salaries. But it is those who do not have this opportunity who most reported experiencing violence. Globally, a sizeable proportion of women have the same level of education as their husbands (59%), 15% are more educated than their partners and 25% are less so. As for age differences between spouses, 5% of women are older or the same age as their husbands, 21% are younger by less than 5 years and 40% are younger by over 10 years.

Moreover, 3 out of 4 women live in monogamous households, 14% have a co-wife and about 10% have at least two co-wives.

Furthermore, violence is statistically associated with women's economic empowerment. Women with a high level of empowerment are more likely to have reported domestic violence while women with a middle of a low level of empowerment are more likely to have reported intimate partner violence. Domestic violence is more reported when violence is associated with household wealth, women education attitudes towards violence against women. Intimate partner violence is more reported when violence is statistically associated with woman's working status. Domestic and intimate partner violence are reported at the same level when violence is related to the possession of a land, involvement in household purchase decisions, the education difference between spouses and the number of co-wives in the household. Violence is also associated with age differences between spouses. Intimate partner violence is more reported when the age difference is between 1-4 years. More than 4 years, it is domestic violence which is more reported. Using a mobile phone, possessing a house, and having any say on partner's earnings are not statistically associated with any type of violence.

**Table 1: Characteristics of Women by Violence (percentage)**

Variables	Specifications	Definition	Overall	Domestic violence	Intimate partner violence
WEE <sub>G</sub>				(0.000)	(0.000)
	Low	1 if the global index of women's economic empowerment is low; 0 otherwise	34.37	29.91	31.28
	Middle	1 if the global index of women's economic empowerment is moderate; 0 otherwise	34.75	36.30	37.08
WEE <sub>D</sub> (Power and agency indicators)	High	1 if the global index of women's economic empowerment is high; 0 otherwise	30.98	33.79	31.643
				(0.127)	(0.401)
	Low	1 if the direct index of women's economic empowerment is low; 0 otherwise	23.64	22.53	23.17
	Middle	1 if the direct index of women's economic empowerment is moderate; 0 otherwise	44.24	42.53	44.09
	High	1 if the direct index of women's economic empowerment is high; 0 otherwise	32.12	34.94	32.74

WEI <sub>r</sub> (Economic advancement indicators)		empowerment is high; 0 otherwise				
			(0.000)			(0.000)
	Low	1 if the indirect index of women's economic empowerment is low; 0 otherwise	51.18	47.35		48.32
	Middle	1 if the indirect index of women's economic empowerment is moderate; 0 otherwise	28.80	32.90		33.68
	High	1 if the indirect index of women's economic empowerment is high; 0 otherwise	20.02	19.74		18.00
Involvement in household purchases decisions						(0.017)
	No	1 if the woman is not involved in household purchased decisions; 0 otherwise	38.33	36.45		36.96
	Yes	1 if the woman is involved in household purchased decisions; 0 otherwise	61.67	63.55		63.04
Use of mobile phone						(0.592)
	No	1 if the woman doesn't use a mobile phone; 0 otherwise	36.92	34.76		36.36
	Yes	1 if the woman uses a mobile phone; 0 otherwise	63.08	65.24		63.64

				otherwise				
Use of internet							(0.017)	(0.573)
	No		1 if the woman doesn't use internet for financial transactions; 0 otherwise		78.71		75.56	77.63
Woman working status	Yes		1 if the woman uses internet for financial transactions; 0 otherwise		21.29		24.44	22.37
	Not working		1 if the woman doesn't have a paid job; 0 otherwise		30.26		26.18	24.88
Possessing of a house	Working		1 if the woman has a paid job; 0 otherwise		69.74		73.82	75.12
	No		1 if the woman doesn't possess a house; 0 otherwise				(0.169)	(0.146)
Possession of a land	Yes		1 if the woman possesses a house; 0 otherwise		22.57		20.14	20.33
	No		1 if the woman doesn't possess a land; 0 otherwise		81.60		82.52	82;06

		otherwise				
	Yes	1 if the woman possesses a land; 0 otherwise	18.40	17.48	17.94	
Live in a poor household	No	1 if the woman doesn't live in a poor household; 0 otherwise	37.36	35.53	37.08	(0.097)
	Yes	1 if the woman lives in a poor household; 0 otherwise	62.64	64.47	62.92	
				(0.000)	(0.000)	
Woman Educated	No	1 if the woman doesn't live in a poor household; 0 otherwise	25.68	16.41	17.17	
	Yes	1 if the woman lives in a poor household; 0 otherwise	74.32	83.59	82.83	
				(0.065)	(0.623)	
Having a bank account	No	1 if the woman doesn't live in a poor household; 0 otherwise	90.00	89.01	90.19	
	Yes	1 if the woman lives in a poor household; 0 otherwise	10.00	10.99	9.81	

Attitudes towards Violence Against Women (VAW)	VAW justified	1 if the woman doesn't find justified violence against women; 0 otherwise	29.55	(0.000)	(0.000)
	VAW unjustified	1 if the woman find justified violence against women; 0 otherwise	70.45	65.45	64.42
Women age				(0.000)	(0.000)
	15-24	1 if the woman is between 15 and 24 years old; 0 otherwise	22.49	21.27	20.51
	25-34	1 if the woman is between 25 and 34 years old; 0 otherwise	38.04	46.22	45.99
	35-44	1 if the woman is between 35 and 44 years old; 0 otherwise	24.08	24.54	24.94
Any say on husband earnings	45-49	1 if the woman is between 45 and 49 years old; 0 otherwise	15.38	7.98	8.55
	No	1 if the woman is not involved in the decision to use her spouse/partner's income; 0 otherwise	46.62	52.89	53.93
				(0.738)	(0.416)

	Yes	1 if the woman is involved in the decision to use her spouse/partner's income; 0 otherwise	53.38	47.11	46.07
Education difference				(0.021)	(0.037)
	Woman more educated	1 if the woman more educated than her spouse/partner; 0 otherwise	15.52	17.89	18.00
	Partner more educated	1 if the partner is more educated than she; 0 otherwise	25.14	25.36	25.24
	Both same educated	1 if the woman and her spouse/partner have the same level of education; 0 otherwise	59.34	56.75	56.76
Age difference				(0.000)	(0.000)
	Woman older or both with same age	1 if the wife is older or the same age as her husband/partner; 0 otherwise	5.29	6.29	6.52
	Woman 1-4 younger	1 if the wife is if the wife is between 1 and 4 years younger than her husband/partner; 0 otherwise	21.07	23.98	24.88
	Woman 5-10 younger	1 if the wife is if the wife is between 5 and 10 years younger than her husband/partner; 0 otherwise	33.72	35.02	34.87



	Woman 10-15 younger	1 if the wife is if the wife is between 10 and 15 years younger than her husband/partner; 0 otherwise	21.60	21.68	20.93
	Woman 15+ younger	1 if the wife is if the wife is more than 15 years younger than her husband/partner; 0 otherwise	18.33	13.04	12.80
Number of co-wives				(0.032)	(0.043)
	None	1 if the wife has no co-wives; 0 otherwise	75.82	82.06	82.12
	One	1 if the wife has one co-wives; 0 otherwise	14.37	10.53	10.41
	At least two	1 if the wife has at least two co-wives; 0 otherwise	9.81	7.41	7.48
		<b>Observations</b>	<b>8 060</b>	<b>4 055</b>	<b>4 055</b>

*Note: Author's calculations based on data from the 2018 DHS. In brackets are P-values from Chi2 test*

## 4.2. Multivariate Analysis

Table 2 presents Probit and 2SRI approach estimations of the effects of women economic empowerment on domestic and intimate partner violence. The columns (1) and (3) present the results of a Probit model that does not consider the potential endogeneity of women's working status, while columns (2) and (4) present 2SRI estimations that consider the potential endogeneity of women's working status.

### 4.2.1. *Endogeneity and validity of instrument tests*

Here the coefficient of the woman's working status residual in the second stage is significant and this confirms the endogeneity of the woman's working status variable. The 2SRI estimation results are therefore convenient for our study. The result of the first stage of 2SRI estimations (at the bottom of the table) indicates that, as expected, the cluster average of working status significantly increases woman's chances of working. Such a result indicates the relevance of the instrument chosen for woman's working status.

### 4.2.2. *Effect of WEE variables on violence against women*

Because of the revealed endogeneity of woman's working status, only the results of the second stage of the 2SRI estimation will be commented below.

The effect of working status on violence is positive but the marginal effect is higher compared to the basic model. When a woman works, she is 21.3% more likely to experience domestic violence and 22% more likely to experience intimate partner violence. Since economic

stress could be a source of violence, an influx of income and consequently economic resources of a spouse as result of paid work may relieve that stress while because goods are shared by both partners. However, Bhattacharyya et al. (2011) shows that sources of increased income can influence whether violence occurs in a household. A husband's contribution to increasing the household's economic resources will certainly reduce violence in the household. It may be unclear what effect an increase in household economic resources attributed to the wife might have on violence. This may cause further tension within the family and then violence. The partner may then attempt to control and appropriate the wife's income by using violence (Schuler et al., 1996).

Women Economic Empowerment has a positive and significant relation with domestic or intimate partner violence. Moreover, the probability of experiencing violence increases with the level of WEE and the effect of WEE is higher for domestic violence than intimate partner violence. Women who have a medium level of economic empowerment are more likely to experience domestic violence by 9.28% and intimate partner violence by 6.93%. Similarly, Women who had high level of economic empowerment are more likely to experience domestic violence by 12.9% and intimate partner violence by 6.84%. These results contradict the bargaining model that argues that the more a woman is economically empowered, the more she would be protected from intimate partner violence. This can be explained by the fact that women's economic empowerment can be viewed as a threat to the image of the partner.

**Table 2: Multivariate Estimations results**

Variables	Dependent variable = Domestic Violence			Dependent variable = Intimate partner Violence		
	Probit	2SRI		Probit	2SRI	
	ME	SE	ME	SE	ME	SE
	(1)		(2)		(3)	(4)
<i>Woman working status (Ref.: No)</i>						
Yes	0.108***	(0.017 2)	0.213***	(0.0457)	0.108***	(0.0168)
<i>WEEG (Ref.: Low)</i>						
Middle	0.0921***	(0.020 6)	0.0928***	(0.0205)	0.0686***	(0.0202)
High	0.128***	(0.021 1)	0.129***	(0.0211)	0.0662***	(0.0210)
<i>Attitudes towards Violence Against Women (VAW) (Ref.: Justified)</i>						
VAW unjustified	-0.119***	(0.017 0)	-0.111***	(0.0174)	-0.113***	(0.0171)
<i>Woman's age (Ref.: 15-24 years)</i>						
25-34 years	0.0525***	(0.020)	0.0349	(0.0213)	0.0590***	(0.0197)
					0.0400*	(0.0210)



Woman 5-10 younger	-0.0985***	(0.0368)	-0.101***	(0.0368)	-0.100***	(0.0370)	-0.103***	(0.0370)
Woman 10-15 younger	-0.105***	(0.0382)	-0.102***	(0.0382)	-0.122***	(0.0382)	-0.119***	(0.0383)
Woman 15+ younger	-0.191***	(0.0396)	-0.187***	(0.0396)	-0.196***	(0.0394)	-0.192***	(0.0395)
<i>Residence Area (Ref.: Rural)</i>								
Urban	0.000762	(0.0177)	0.0152	(0.0177)	-0.0194	(0.0165)	-0.00365	(0.0176)
<i>Number of co-wives (Ref.: None)</i>								
One	-0.0155	(0.0257)	-0.0128	(0.0257)	-0.0342	(0.0251)	-0.0314	(0.0252)
At least two	0.0562*	(0.0326)	0.0573*	(0.0326)	0.0357	(0.0327)	0.0369	(0.0327)
<i>Household size</i>								
	0.00527**	(0.00243)	0.00526**	(0.00243)	0.00766**	(0.00239)	0.00764***	(0.00239)
<i>Endogeneity test</i>								
residual from first stage Probit		(0.0306)	-0.0723**	(0.0306)			-0.0795***	(0.0303)
<i>Observations</i>	3,985		3,985		3,985		3,985	
<i>First stage results instruments</i>								

Wald Chi-squared Test of joint significance					1433.60***				1433.60***
Cluster average working status					2.6624***	(0.0906)			2.6624*** (0.0906)

*Note: Author's calculations based on data from the 2018 DHS. ME = Marginal Effect. SE = Robust Standard Errors; \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%; Variables in parentheses are References.*

Indeed, as Macmillan and Gartner (1999) point out, society has prescribed specific roles for men and women in a household. In Africa more than elsewhere, the man is considered the "leader" of the family, the one who earns his living and therefore enjoys economic power, imposing on the woman to submit. Moreover, in several cultures, in Cameroon, the woman is only a machine for making children; from an early age, the girl is educated to serve the boy, no matter how small he is, she must serve him. Women are not allowed to speak in public in front of men. In such an environment, the economic empowerment of women can only exacerbate violence against women, because it increases women's power and confidence in the household. The partner can feel that these naturally predefined roles in the household have been altered. An increase in WEE could lead to men feeling powerless or to atypical roles within the household such as the woman being the main income earner (Hidrobo and Fernald, 2013). Consequently, partner will try to compensate for his loss of authority by using violence.

When we examine the effect of WEE according to the two dimensions used for its construction, we also find out that the two indicators have positive relation with domestic or intimate partner violence (see Table 3). Results show that the effect of power and agency indicators of WEE is higher for intimate partner violence while the effect of economic advancement indicators of WEE is higher for domestic violence. Power and agency indicators are those related to the woman's ability to make decisions and control household resources. They demonstrate the power that the woman could have within the couple to the detriment of the partner. Because this type of capacity and the resulting actions and decisions are more intimate to the couple, it therefore seems normal that the effect of power and agency indicators is greater on intimate partner violence. Economic advancement indicators, on the other



hand, relate to women's skills for economic success. They can be visible and observable by all members of the household who can use violence when they feel economically threatened or when they feel their economic (or not economic) interests in the household threatened.

The results of the estimations, once the different dimensions of WEE are disaggregated (see Table 3), show that when a woman has a say on household purchase, she is 4.75% more likely to experience intimate partner violence and 5.18% more likely to experience domestic violence. The use of the internet by a woman is only significant for domestic violence. Domestic and intimate partner violence are less likely to occur if a woman possesses a house. Panda and Agarwal (2005) have shown that owning a house can offer women a credible exit option from marriage and therefore constitute a kind of “shield” for them. The husband can therefore exercise less violence to prevent the wife from leaving, especially if they have children.

A woman who owns a land is, however, more likely to face domestic and intimate partner violence. For intimate partner violence, the effect is slightly greater. The underlying explanation for this result is the same as that for the effect of an increase in income. The possession of land is a sign of a rise in household wealth, and that may reduce violence. But the issue of land possessed by a woman may lead to conflict between husband and wife due to the husband's desire for control.

**Table 3: Disaggregated 2SRI estimations (Marginal Effects)**

VARIABLES	Dep variable = Domestic Violence	Dep variable = Intimate partner Violence
<i>WEED</i> (Ref.: Low)		
Middle	0.0653** (0.0287)	0.0741*** (0.0281)
High	0.101*** (0.0329)	0.0746** (0.0326)
<i>WEEI</i> (Ref.: Low)		
Middle		0.0868*** (0.0241)
High		0.165*** (0.0309)
<i>Disaggregated Estimations</i>		
<i>Power and agency indicators (WEED)</i>		
<i>If woman has any say in household spending (Ref.: No)</i>		
Yes	0.0518**	0.0475**

	(0.0202)		(0.0198)
<i>Using a mobile phone for financial transactions (Ref.: No)</i>			
Yes	0.00251		-0.0101
	(0.0188)		(0.0186)
<i>Using internet (Ref.: No)</i>			
Yes	0.0484**		0.00861
	(0.0214)		(0.0212)
<i>Economic advancement indicators (WEEI)</i>			
<i>Possessing a house (Ref.: No)</i>			
Yes		-0.0411*	-0.0388*
		(0.0238)	(0.0231)
<i>Possessing a land (Ref.: No)</i>			
Yes		0.0586**	0.0593**
		(0.0259)	(0.0257)
<i>Living in a poor household (Ref.: No)</i>			
Yes		0.0206	-0.00687
		(0.0178)	(0.0175)
<i>Having an account in a financial institution (Ref.: No)</i>			

Yes	-0.00821 (0.0272)	-0.0438* (0.0264)
<i>If woman went to school (Ref.: No)</i>		
Yes	0.199*** (0.0215)	0.168*** (0.0205)

**Note:** Author's calculations based on data from the 2018 DHS. Robust Standard Errors in parenthesis. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%;  $WEE_D$  = Direct measure of WEE and  $WEE_I$  = Indirect measure of WEE.

Women who have an account in a financial institution are less likely to experience intimate partner violence. Education has a large effect on violence against women and it is higher for domestic violence than for spouse violence. Compared to a woman who did not go to school, a schooled woman is 19.9% more likely to experience domestic violence and 16.8% more likely to experience intimate partner violence. This effect of education on violence can be linked to the correlation between education and income. In spite of this, Bhattacharyya *et al.* (2011) said education can have a direct influence regardless of income, since it can present a source of social stress for the partner. To protect his authority and his traditional male image, he can resort to violence.

#### *4.2.3. Effect of other variables on violence against women*

Briefly looking at the remaining variables, only results presented in table 3 will be presented (The marginal effects from the estimates in Table 4 vary slightly but no change in sign or significance was observed.). The results show that the probability for a woman to experience violence decreases significantly when she finds that violence against women unjustified. The effect is slightly greater on intimate partner violence than on intimate partner violence. Women's age has a slight positive and significant effect only on intimate partner violence. There is a decrease in domestic and intimate partner violence when a woman has a say in husband earnings. The effect is higher on intimate partner violence. Education and age differences among spouses are negatively linked to violence and their effects are significant. Woman is less likely to experience violence when she has at least the same education level with her partner and the effect is greater on domestic violence. However, a partner more

educated is less likely to use violence. On the other hand, the probability of facing violence also decreases with age difference. The results suggest that the bigger the age difference between spouses, the less likely violence will occur. Moreover, the effect of age difference is greater on domestic violence than on intimate partner violence. Results suggest that violence is more likely to occur in polygynous marriages. Having at least two co-wives increases only the woman's probability of experiencing domestic violence. Household size has a significant but slight effect on violence against women.

## **5. CONCLUSION**

The aim of this study was to investigate the effect of Women's Economic Empowerment on violence. Based on the analysis of the 2018's Cameroonian DHS data, this study found that women's economic empowerment (WEE) significantly increases the incidence of domestic and intimate partner violence in Cameroon. Our findings also show that the effects of women's capacity to formulate and implement economic decisions are higher for intimate partner violence while the effects women's ability to thrive and progress economically are higher for domestic violence. Such results implies that in Cameroon, women economic empowerment is not really translated to empowerment within the household. In fact, in several cultures in Cameroon, the woman is marginalized and is educated to serve the boy, no matter how small he is. In such an environment, the economic empowerment of women can only exacerbate violence against women, because alters these predefined roles in the household by the power and confidence it brings to woman who will no longer accept that place assigned to them in society. Consequently, partner will try to compensate for his loss of authority by using violence. This implies limitations of

public policies promoting women economic empowerment in a context characterized by some social and cultural considerations that restrain the role of women in the society.

The results of the econometric approach adopted reveal that it is important to control for unobserved factors that can lead to the endogeneity of women's working status. Estimates that do not account for endogeneity of this variable are more likely to underestimate the effect of women's working status and economic empowerment on incidence of violence. In fact, estimated marginal effects are higher when the endogeneity of woman's working status is considered. Moreover, the probability of experiencing violence increases with the level of WEE and the effect of WEE is higher for domestic violence than intimate partner violence.

State interventions should encourage collaboration and shared decision making within the couple despite especially if the woman is economically autonomous. Stern *et al.* (2018) in Rwanda, showed that shared decision making when spouses contribute economically to a couple relationship has a positive effect on household development, spousal satisfaction, and the prevention of conflict within the couple. These interventions should also encourage communication within the couple to reduce tensions that may arise from the empowerment of women while making sure that traditional notions of men as household heads and primary breadwinners are not transgressed. Our findings also show that the effect of power and agency indicators of WEE is higher for intimate partner violence while the effect of economic advancement indicators of WEE is higher for domestic violence. This suggests that the awareness and support policies advocated above should, on the one hand, focus on women's ability to formulate and implement economic

decisions to reduce intimate partner violence and, on the other hand, focus on women's ability to prosper and advance economically to reduce domestic violence.

Nevertheless, this study has some limitations. First, it would have been interesting to know about other dimensions of women's empowerment, such as social empowerment, because the effects of economic empowerment are far from being independent of the social and institutional context in which women live. Moreover, the cross-sectional data used in this study do not allow to establish the causality that might exist between Women's Economic Empowerment, access to resources, and violence, although there is some evidence that women's empowerment can both cause and result in violence (Abramsky et al., 2011). Lastly, this study focused on physical, emotional, or sexual violence. Future studies may be directed toward economic violence which is an area of research that has recently emerged (Stylianou, 2018). Economic violence is an important aspect of violence against women and it has recently been considered as the only form of violence that allows the perpetrator to exert consistent control over the abused (Alkan et al., 2021).



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