

# Women and Salaried Labor Supply in Cotonou: What Role for the “Vidomègon” Variable?\*

Emile Aifa<sup>1</sup>, Yvette Dognon<sup>2</sup>

<sup>1</sup>University of Parakou (CRECI), Parakou, Benin

<sup>2</sup>Université Africaine de Développement Coopératif (UADC), Cotonou, Benin

Email: emileaifa@yahoo.fr, dognonyv@yahoo.fr

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## Abstract

Women make up more than half of the Beninese population and, through their role as producers, represent a very important link in the country’s production chain. As such, employing them in salaried employment and knowing the determinants would undoubtedly produce marginal benefits for the entire national economy. It is to this problem that this research has attempted to respond, having as its experimental perimeter, the cosmopolitan city of Cotonou. The specific effect of the “vidomègon” variable is taken into account. The analysis is based on surveys with the methodological background of the logit model. The estimate would reveal that the supply of salaried work for women in Cotonou is essentially dependent on variables: “vidomègon”, long-term training, work income, husband’s income, etc.

## Keywords

Foster Child, Women, Labor Supply

## 1. Introduction

A small economy open to the world, Benin is one of the least developed countries with an estimated population of 12,451,031 inhabitants in 2021, of which approximately 52% are women (INSTAD, 2021). Very active in national economic life where they work in all sectors of the economy (agriculture, trade, crafts, service, processing, etc.), these women constitute the most vulnerable and poorest strata (PNUD, 1997). This vulnerability is explained by the fact that women often do not have access to the means of production (land, credit, inputs, etc.) for the exercise of income-generating activities (Dognon, 2021). However,

\*Placed child or unpaid servant.

economic literature and current events reveal the importance of women and their role as actors in development. In effect, the place of women in any development strategy is recognized throughout the world. The writings to illustrate it are abundant, as are the number of meetings, seminars and demonstrations of all kinds, organized here and there to discuss its status. In most African countries, it is mainly women who are responsible for household food security. In Benin, where they represent 37.82% of the agricultural force, it is they who provide a large part of the foodstuffs (Zounon & Ahoey, 2005). They are also strongly present (admittedly informally) in commercial activities (Dognon, 2021), organized here and there to discuss its status. In most African countries, it is mainly women who are responsible for household food security. In Benin, they represent 37.82% of the agricultural force, it is they who provide a large part of the foodstuffs (Zounon & Ahoey, 2005). They are also strongly present (admittedly informally) in commercial activities (Dognon, 2021), organized here and there to discuss its status. In most African countries, it is mainly women who are responsible for household food security. In Benin, they represent 37.82% of the agricultural force, it is they who provide a large part of the foodstuffs (Zounon & Ahoey, 2005). They are also strongly present (admittedly informally) in commercial activities (Dognon, 2021).

Indeed, if at the national level, important political measures have favored the creation of several mechanisms<sup>1</sup>, the fact remains that women remain vulnerable in Beninese society. This assertion is further confirmed when we look at figures relating to access to education, credit, employment and gender in the country (Dognon, 2021)... Yet the particular role of Beninese women and the development stake it represents in poverty reduction strategies (PNUD, 1998) remains an obvious fact known to all. Indeed, focusing on women while demonstrating that “investing in the advancement of women is one of the best ways to reduce monetary poverty and human poverty”, the PNUD (1998) considered that one of the way to achieve this is to provide women with paid employment.

About two decades after the publication of the PNUD (1998) report, the economic situation of Beninese women remains mixed. The Gender Inequality Indexes (GII) and Women’s Participation in Economic and Political Life (IPF), established respectively at 0.613 and 0.454, provide proof of the fragility of the living conditions of Beninese women. These indices also place Benin among the African countries with low human development. They reveal inequalities between women and men in many areas, including the labor market (PNUD, 1997). In

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<sup>1</sup>Including the organization in 1992 of a symposium on the integration of women in development, the creation in 1993 of the National Commission for the integration of wife for Development (CN/IFD), the creation in 1996 of a Department of the condition female (DCF) and, in 1998, the creation of a Ministry in charge of the promotion of wife and of family, which became the Ministry of family, of Social Protection and of solidarity in May 2001 as well as the recognition of International Women’s Day (since the end of the 1990s), the vote in 2004 in the National Assembly of the Persons and Family Code in addition to other laws relating to the protection of women (on female circumcision, domestic violence, rape and sexual harassment), the very recent creation of the National Institute for Women (INF) and the adoption of many other texts in favor of wife, etc.

fact, we will manage to raise the standard of living of Beninese women when we have succeeded in providing them, among other jobs, with remunerative work. For this purpose,

Studies on the labor supply of women (OLF) were very rare in Africa. The pioneering study which attempted to clarify gender inequalities in labor market participation is the study conducted by [Lachaud \(1997\)](#) in five large African cities: Abidjan (Côte d'Ivoire), Bamako (Mali), Conakry (Guinea), Ouagadougou (Burkina Faso) and Yaoundé (Cameroon). If this study was able to identify some determinants of OLF in these African cities in a global way, it should be noted that it observed the existence of contrasting results depending on the locality which, she concluded, suggests an interference of local specificities. By virtue of this rather relevant remark, we have chosen to integrate certain specific factors for the case of Cotonou, in this case, the “vidomègon” variable,<sup>2</sup> which is a very sensitive “phenomenon” in the socio-cultural context of Benin.

The following development is divided into six sections. First, we placed the women of Cotonou in their context, identifying the economic activities they perform. The second section that follows is concerned with a brief inventory of prior knowledge on “women’s paid work”. The other sections are devoted to the analysis and interpretation of the results resulting from the methodological approach adopted in the context of this work.

## 2. Status of Women’s Work in Cotonou

Cotonou is the most populous and cosmopolitan city in Benin, with a population of 1,228,667 in 2021 ([INSTAD, 2021](#)) of which more than half are female. Both an economic and commercial capital, it concentrates more than 45% of the country’s assets, including women. These women who have an activity rate (54%) lower than that of men (64.1%) ([Zounon & Ahovery, 2005](#)), engage in various economic activities to support themselves. Among the inactive who live in this city, there are students and pupils, but also the “children placed” commonly called “vidomègon” in Benin. They are usually out-of-school girls under the age of 12 from needy families, sent under the tutorship of better-off families, whom they help with domestic work in return for a good education or training to socio-professional life.

In this agglomeration undermined by the existence of a dynamic informal sector, the estimate of the value of the actual work provided by women is subject to strong variations; so difficult, even complex, is it to accurately assess the part of their activities characterized by its underground nature. Indeed, as in other cities in Benin, the female population of Cotonou fit into all branches of activity of the local economy; whether formal or informal.

Jobs in Cotonou in the formal sector are mostly held by men, 70.11% against only 29.89% for women<sup>3</sup>. In fact, 26% of men have a salaried job against barely

<sup>2</sup>“Placed child” in the Fon language mainly spoken in the locality of Cotonou.

<sup>3</sup>[SERHAU-SA \(2006\)](#), Economic Report of the city from Cotonou, November 2006.

12% for women (INSAE, 2013). The low literacy rate of women, added to the role and status of women in society would undoubtedly have contributed to this situation. The formal sector (wage labor) is also characterized in this city by a preponderance of the public sub-sector, with a rate of 51.81% of jobs filled (Zounon & Ahovery, 2005).

Compared to the State, the private sector absorbs less manpower. Indeed, this sector employs 48.19% of the active population employed in the formal sector (Zounon & Ahovery, 2005). Their presence is especially remarkable in the wholesale trade and in the Dantokpa market where they represented 90% of economic operators, given their dynamism and their entrepreneurial spirit (CN/IFD, 1994). However, despite this preponderance, this sector, because of its narrowness, is unable to absorb the surplus of female labor which continues to grow on the market. It is the informal sector that provides most of the existing jobs, notwithstanding their precarious nature.

Indeed, perceptible in the Beninese economy, the informal sector is also a reality in Cotonou. Both men and women perform various activities there. Apart from agricultural activities (plant and animal production) whose exercise requires large spaces, the informal sector is based on the tertiarisation (the multiplication of “service professions”). It is in this sector that women’s craftsmanship is also remarkable. In the Dahomean tradition, the family economy was the most important component of the economy and carried out most of the production activities (Adjahi, 2002). Handicrafts are also much more invested by women in Cotonou. This is, no doubt because the woman, by virtue of her status as mother of the home and guardian of tradition, is predisposed to carry out craft activities. Moreover, these activities do not necessarily require formal teaching because they are based above all on observation and learning and are often complementary to the experiences received at home. As a result, many Cotonoise women today are professionals in sewing, embroidery, hairdressing, aesthetics, dyeing, catering... They are encouraged by the possibilities of selling that Cotonou offers, (economic city and first locality of reception of the foreigners in Benin) without forgetting the windows of exposure which are the fairs... organized here and there. Therefore, attention deserves to be given to this sector because of its importance as a creator of female employment in Benin, and in this case in Cotonou. These activities do not necessarily require formal teaching because they are based above all on observation and learning and are often complementary to the experiences received at home. As a result, many Cotonoise women today are professionals in sewing, embroidery, hairdressing, aesthetics, dyeing, catering... They are encouraged by the possibilities of selling that Cotonou offers, (economic city and first locality of reception of the foreigners in Benin) without forgetting the windows of exposure which are the fairs... organized here and there. Therefore, attention deserves to be given to this sector because of its importance as a creator of female employment in Benin, and in this case in Cotonou. These activities do not necessarily require formal teaching because they are based

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In this sector, where the scarcity and unreliability of statistical information is to be deplored (especially in Cotonou), most of the activities are carried out by women who are generally found in trade and crafts. This situation is due to the presence of the large Dantokpa market and the proximity of Nigeria. From then on, trade became their favorite field. Access conditions are easy to meet and Cotonou, the first commercial city in Benin, lends itself perfectly to this. They can be found near roads selling fruit and vegetables or managing kiosks and mini-stores. There are many of them in the markets of Dantokpa, Saint Michel, Gbégamey, Ganhi... where they manage to obtain small stalls for the sale of their goods or products. Domestic trade is mostly dominated by women who monopolize trade in fabrics, food products and miscellaneous products. They provide most of the supply circuits for food products and other basic food products. The jewelry and other bracelets sector also occupy a prominent place in their commercial activities.

In summary, this section has allowed us to make an overview of women's work in the city of Cotonou. Now, we are going to try to make a brief overview of some previous works that have dealt with the issue of the offer of salaried employment for women.

### 3. Literature Review

Measuring the sensitivity of women's labor supply is a poorly unified field of analysis, leaving many methodological and empirical questions open (Briard, 2017).

Marc (2006) focused on the female labor market and studied "the qualitative determinants of female activity behavior. Beyond financial incentives". Basing her analysis, on an experimental basis on France and Sweden, the author has constructed a typology of employees cross-referencing employment status, working time and working hours, in order to question the quality of jobs. The results showed that "women's decisions to be inactive, considered as a voluntary choice linked to maternity and the unprofitability of work, appear to be strongly constrained by their employment situation". Indeed, "financial arbitration is not the only reason, nor probably the major reason for the interruption of activity of mothers of young children; employment situations (employment status, type of working hours, sector of activity, etc.) also play a part in the decision of a certain number of women to interrupt their professional activity to devote themselves to their children". Refining the analysis by generalizing this result through an empirical analysis of the influence of the qualitative variety of employment situations on the choices of activity transitions of women as a whole and by integrating seven satisfaction indicators, Marc (2006) was able to highlight three important results. First: transitions from full-time employment to unemployment or inactivity are significantly influenced by variables relating to the quality of previous jobs. Second: family and professional constraints affect differently according to the nature of the transition and according to gender. Finally, "salary satisfaction is not the aspect that best discriminates between transitions between full-time and part-time employment, unemployment or inactivity. It is therefore necessary to integrate all the dimensions of employment and not be limited to wages alone in order to correctly understand the behavior of workers". This third result seems paradoxical and moreover shows that beyond the financial considerations attributed to the "work" variable by microeconomics (of the labor supply), this research shows, in the analysis of behaviors activity of women, especially in France, the importance of institutional factors in the relationship between employment and family, on the one hand.

In Central Europe, due to the shortage of labor during the socialist era, the activity rate of women was very high. This situation had deteriorated there (except for Hungary) during the first years of systemic transformation and affected both women and men as well as people over the legal retirement age. This observation led Pailhé (1998) to study the labor supply of women using a probit model. The results of the estimation reveal that the fall in the activity rate of women is mainly due to the relatively large number of mothers applying for maternity leave (except in Poland) and by the relatively low level of wages offered to them. Continuing the analysis, the author comes to the conclusion that contrary to what is observed in the West.

The characteristics and evolution of the labor market for women were statistically analyzed in Morocco in 2013 by the High Commission for Planning. The processing of information collected from 12.3 million women of working age (15 years and over) shows that having a diploma increases the chances of accessing a job providing medical coverage. Her information also reveals that “according to regularity in employment, the situation of women differs from one place of residence to another”. Indeed, if in urban areas, women working full time and permanently are 90.4%; in rural areas, they only represent a proportion of 55%. This means that the nature of the environment statistically conditions the labor supply for Moroccan women.

Briard (2017) has summarized, for the French economy, studies relating to “the elasticity of the labor supply of women” in recent years. From the outset, the author points out that “the elasticities calculated for France over the last fifteen years using structural models are mostly derived from discrete-choice job offers”. Then, scientifically analyzing the different specifications of models highlighted in the context of this research (“having led to a relative dispersion of values”), the author considers that the results converge on the following points: “the supply of women’s labor is more elastic to their wages than that of men, it is higher for women in a couple and mothers of young children than for single women and women without children. On the other hand, we note a divergence of results with regard to the sensitivity of the labor supply of women in a couple to the labor supply of their spouse, which, according to the author, “testifies to the difficulties of modeling strategic interactions within households”.

Although rare, the labor supply of women has been the subject of a few studies in Benin. This is the case of the research conducted by Dansou (2006) on: the growth of female labor and its specificities in the city of Cotonou. The analytical approach adopted is based on descriptive statistics of data relating to the second (in 1992) and third (in 2002) general population and housing censuses (RGPH) and data from the survey on employment (in 2001), carried out by the National Institute of Statistics and Economic Analysis (INSAE). The study used both descriptive indicators and comparison indicators. At the end of the work, the author arrives at the results according to which: the women most represented on the labor market belong to the age group 30 - 49 years;

Following him and in an exercise of extension of the statistical results of Dansou (2006), but this time by placing, by means of an econometric analysis, the accent on the nature of the relationship existing between fertility and accessibility women in salaried employment, Kpadonou et al. (2011), were also interested in the Cotonou labor market. The analysis is based on an econometric methodology based on the logit model. The aim was to estimate the probability that a woman will have access to salaried employment in Cotonou according to the number of children procreated. Other variables were used to achieve this goal. Based on data from the 2006 DHS (Demographic and Health Survey), the work involved 831 women with at least two living children. The analyses resulting



from the econometric work enabled the authors to draw two main conclusions. Indeed, according to this research, no statistically significant link exists between the number of children and access to salaried employment for women in Cotonou. “The hypothesis according to which women gain more access to salaried employment when they have fewer children is not verified in Cotonou”. On the other hand, what allows women to access full-time salaried employment is the opportunity to delegate to a third party the educational tasks of the children. “The presence of other women in the household” is therefore a very significant variable in women’s access to salaried employment in Cotonou. Indeed, faced with the multiple constraints and obligations of salaried employment to which women are subject.

These results, although interesting, observed more than ten years ago, would present some biases if they were generalized over time. Indeed, the recent changes and reforms that have shaped the socio-economic and professional status of women in Benin (legislation on women, labor rights, women’s education, etc.) would undoubtedly have repercussions on the labor market. Moreover, this work seems reductive in several respects. Indeed, the problem: “accessibility to salaried employment” subtly hides “the decision of the woman” to want to engage or not. Everything leads us to believe that the woman, called upon to gain access to salaried employment, does not have “her word” to say, in short, her arbitration to make, as homo economicus. The study would gain in results if it had also taken into account the “woman’s decision”, therefore of its “supply of salaried work”. Moreover, this research would be of more interest if it had not been limited to just a few sociological and demographic variables. “We also measure the effect of other demographic and social variables without, however, trying to integrate all the variables likely to influence a woman’s chances of having a salaried job in Cotonou” (Kpadonou et al., 2011). The “vidomègon” variable, which is a socio-economic reality in the Beninese context, was also overlooked, although “the presence in the household of other women” is positively significant. “We also measure the effect of other demographic and social variables without, however, trying to integrate all the variables likely to influence a woman’s chances of having a salaried job in Cotonou” (Kpadonou et al., 2011). The “vidomègon” variable, which is a socio-economic reality in the Beninese context, was also overlooked, although “the presence in the household of other women” is positively significant. “We also measure the effect of other demographic and social variables without, however, trying to integrate all the variables likely to influence a woman’s chances of having a salaried job in Cotonou” (Kpadonou et al., 2011). The “vidomègon” variable, which is a socio-economic reality in the Beninese context, was also overlooked, although “the presence in the household of other women” is positively significant.

#### **4. Methodological Approach**

The choice of a statistical analysis model certainly depends on the phenomenon



studied, but above all on the nature and structure of the data. Consequently, the validity of the results will depend on the compatibility of the model with the available data.

Indeed, it is for us to identify, within the framework of this research, the factors related to the circumstances in which a woman offers her strength on the salaried labor market. These factors would also depend on individual characteristics (age, level of education, marital status, ethnicity, number of children, etc.), cultural (co-wife, brother and sister, spouse's ethnicity, cohabitation with other people, etc.). Than socio-economic ones (level of education, professional status, profession, income from work, non-salaried income, husband's income, discrimination at entry and on the paid labor market, etc.)

In other words, it is a question of explaining the occurrence or not of the event: "the woman offers herself to the salaried labor market". The explained or dependent variable represents the "chance" or the "risk" of the woman gaining access to the salaried labor market, which can only take two forms. To this end, the analysis model that will be retained can only be a dichotomous model. On the other hand, a dichotomous model incorporates a dichotomous variable and the standard linear specification does not fit it. Least squares estimation methods therefore prove to be unsuitable. Hence the use of logistic regression.

Computer processing under SPSS will make it possible to estimate the parameters of the Logit model by the maximum likelihood method, to detect the relationships that exist between the dependent variable (the possibility that a woman offers herself to the salaried labor market) and the variables independent (individual, cultural, socio-economic characteristics of the woman and her parents, etc.). The STATA software version 9 will help us to calculate the marginal effects.

The dependent variable is the qualitative variable "salaried labor supply" denoted OLS, coded as follows:

OLS = 1, if the woman offers herself to the salaried labor market,

OLS = 0, if the woman does not offer herself to the salaried labor market.

With as dependent variables:

VIN: educational level; NIVPE: level of education of the father; LEVEL: level of education of the mother; DM: husband's decision; RM: husband's income; RO: income offered; EM6: children under six; DISCRIMI: discrimination upon entry and on the salaried labor market; vida; placed children or "vidomègon"; VOI: neighborhood (relative, friend or daycare); RNS: non-wage income

The data used to develop an explanatory model of the supply of salaried labor for women in Cotonou come from a survey, based on a questionnaire, of a sample of 200 women, for lack of data relating to this theme. The sample is made up of 100 salaried women (thus already on the salaried labor market) and 100 non-salaried women (thus not having access to the salaried labor market).

The questionnaire used is structured in several sections:

- 1) Individual characteristics;
- 2) Socio-economic characteristics;

- 3) Cultural characteristics;
- 4) Participation in the salaried labor market.

All this is followed by a space reserved for collecting proposals from the women interviewed, for the facilitation of access to salaried employment.

These surveys provide information on the dependent variables as stipulated in Appendix 1.

## 5. Results and Discussions

This paragraph summarizes the main empirical results of our research. The estimates of the Logit model carried out using the SPSS software, of the participation of women in the paid labor market, and in particular that of married women are presented in **Tables 1-4**.

### 5.1. Determinants of the Supply of Salaried Labor for Women in Cotonou

It is possible that it is the offer of salaried work of the woman which conditions the decision to shelter a “vidomègon”. In this case, it is the OLS variable that becomes dependent on the “vidomègon” variable. To better understand this situation, before estimating the labor supply function of women in Cotonou, we first test a possible endogeneity of the variable: “vidomègon” with respect to the OLS. The Hausman test, the results of which are given in **Table 1**, contributed to this exercise.

**Table 1.** Hausman test and exogeneity of the variable “children placed vivomègon sheltered” in the MLS participation model for women in Cotonou.

	(b)	(B)	(bB)	sqrt(diag(V <sub>b</sub> -V <sub>B</sub> ))
	eq1		Difference	SE
ID	1.6339	0.2209	1.4130	0.5324
VIN	0.02699	0.063	-0.0360	0.0417
LEVEL	-0.02708	0.0009	-0.0280	0.02756
LEVEL	0.02162	0.0019	0.0197	0.01884
DM	0.07817	0.0203	0.0579	0.0782
RM	0.06739	-0.1509	0.2183	0.1102
OR	-0.2689	0.351	-0.6199	0.3092
EM6	-0.01323	-0.1298	0.1166	0.1208
DISCRIMI	0.0377	0.0114	0.0263	0.0757
ID	-0.01693	-0.01378	-0.0032	0.0835
RNS	0.2883	-0.2294	0.5177	0.1464

b = consistent under H<sub>0</sub> and H<sub>a</sub>; obtained from drunk. B = inconsistent under H<sub>a</sub>, efficient under H<sub>0</sub>; obtained from regress.

- **Hausman test**

The Hausman test, as presented in **Table 1**, tells us that the “vidomègon” variable is exogenous in the model for estimating the supply of salaried labor (OLS) for women in Cotonou. Indeed, the probability of the Hausman test (0.1298) is greater than 10%. This testifies to the exogeneity of the “vidomègon” variable. Consequently, a woman’s decision to shelter a “vidomègon” is not conditioned by her participation in the labor market.

- **The explanatory model**

The Hausman test having cleared us of the endogeneity problem, the estimates of the Logit explanatory model of participation in the salaried labor market of women in Cotonou are presented as follows in **Table 2** below.

Thus defined, the probability for a woman to participate in the paid labor market will be obtained by the formula

$$p(i) = 1 / (1 + e^z)$$

where  $z = \log \text{OLS}$ .

This table attests to the quality of the estimated model given that 97.5% of the cases are correctly classified.

**Table 2.** Equation for participation in the salaried labor market (logit estimate).

<b>Dependent variable</b>		<b>Logit: Salaried Labor Supply (OLS)</b>				
<b>Independent variables</b>	<b>B-parameters</b>	<b>ES</b>	<b>Wald</b>	<b>Sig F<sup>1</sup></b>	<b>Marginal effects</b>	
VIN	3571	1497	5691	<b>0.017</b>	0.717	
LEVEL	0.170	0.45	0.143	0.705	0.02	
LEVEL	0.147	0.379	0.149	0.699	0.021	
DM	-2.836	2322	1491	0.222	-0.525	
RM	-2.867	1421	4.07	<b>0.044</b>	-0.533	
OR	6664	2776	5762	<b>0.016</b>	0.875	
EM6	-4.468	2442	3347	<b>0.067</b>	-0.707	
DISCRIMI	-1.05	1474	0.507	0.476	-0.237	
ID	6892	2761	5702	<b>0.017</b>	0.923	
VO	0.115	1231	0.009	0.926	0.052	
RNS	-6.889	2752	6268	<b>0.012</b>	-0.939	
Constant	-8.061	4.12	3829	0.05		
<b>“-2Log likelihood”</b>		<b>24,152</b>				
<b>KHI2/Sig KHI2</b>		<b>248.943/0.0000</b>				
<b>Cases correctly classified/N</b>		<b>97.5%/197</b>				
<b>Hausman test/SigH</b>		<b>16.32/0.1298</b>				

<sup>1</sup>Probability that the coefficient is equal to zero; Wald statistics with Logit.

They indicate to us, moreover, that although having signs in conformity with the theoretical predictions, the variables such as, “the level of education of the mother”, “the level of education of the father”, “the decision of the husband”, “discrimination” and “neighborhood” do not significantly influence the probability of the Cotonoise woman to offer her labor force for salaried employment. Indeed, these factors have no significant influence on the woman’s decision to participate or not in the paid labor market. On the other hand, the variable “child in care” or “vidomègon” has a positive influence on the participation of women in the paid labor market. In other words, the fact of sheltering “vidomègon” considerably increases the woman’s incentive to take up salaried employment: when the chance that the woman harbors children placed “vidomègon” increases by 1%, the probability that she accesses the market increases by 92.30%. These figures attest to the importance of the role of the “vidomègon” in a woman’s decision to offer her labor force for salaried employment.

However, although high, the “vidomègon” factor is not one of the determinants of the participation of Cotonoise women in the salaried labor market. This (participation in the salaried labor market of women) is positively linked to the income offered (OR) on the market. The more the woman is able to earn a high salary, the more likely she is to be in the wage labor market. For an increase in income of 100 FCFA, the probability that the woman participates in the salaried labor market (MLS) increases by 87.49%. This probability increases for women with a high level of education, because the level of education has a positive influence on women’s participation in the paid labor market. The higher the level of education, the more access a woman has to the salaried labor market. Better,

Several other variables are significant, with a negative influence on the supply of salaried labor for women in Cotonou. This is the case of the variable “RM” (Husband’s Income). The higher the husband’s income, the less will be the wife’s wage labor supply. Compared to the woman’s non-salaried income, the expected negative effect on the probability of being in salaried employment is verified. The higher the level of non-wage income, the lower the probability that the woman will decide to participate in the wage labor market. Furthermore, the distinction we made between “husband’s income” and “non-wage income” allowed us to find that the latter seems to have a greater effect than the former with regard to the decision to participate in the labor market. An increase of 100 FCFA in the husband’s income results in a 53.29% reduction in the wife’s incentive to participate in the wage labor market; while an increase of 100 FCFA in non-wage income would result in a 93.91% reduction in the incentive for women’s participation in the wage labor market. In addition, the fertility variable also confirms the theoretical predictions. Indeed, the presence of children under the age of six greatly reduces the probability of participating in the salaried labor market (MLS), and therefore constitutes a blocking factor for women’s access to salaried employment. When the woman’s risk of having children under the age of six increases by 1%, the probability of the woman participating in MLS de-

creases by 70.70%, all other things being equal. 29% of the incentive for women to participate in the salaried labor market; while an increase of 100 FCFA in non-wage income would result in a 93.91% reduction in the incentive for women's participation in the wage labor market. In addition, the fertility variable also confirms the theoretical predictions. Indeed, the presence of children under the age of six greatly reduces the probability of participating in the salaried labor market (MLS), and therefore constitutes a blocking factor for women's access to salaried employment. When the woman's risk of having children under the age of six increases by 1%, the probability of the woman participating in MLS decreases by 70.70%, all other things being equal. 29% of the incentive for women to participate in the salaried labor market; while an increase of 100 FCFA in non-wage income would result in a 93.91% reduction in the incentive for women's participation in the wage labor market. In addition, the fertility variable also confirms the theoretical predictions. Indeed, the presence of children under the age of six greatly reduces the probability of participating in the salaried labor market (MLS), and therefore constitutes a blocking factor for women's access to salaried employment. When the woman's risk of having children under the age of six increases by 1%, the probability of the woman participating in MLS decreases by 70.70%, all other things being equal. 91% of the incentive for women's participation in the salaried labor market. In addition, the fertility variable also confirms the theoretical predictions. Indeed, the presence of children under the age of six greatly reduces the probability of participating in the salaried labor market (MLS), and therefore constitutes a blocking factor for women's access to salaried employment. When the woman's risk of having children under the age of six increases by 1%, the probability of the woman participating in MLS decreases by 70.70%, all other things being equal. Therefore constitutes a blocking factor for women's access to salaried employment. When the woman's risk of having children under the age of six increases by 1%, the probability of the woman participating in MLS decreases by 70.70%, all other things being equal, therefore constitutes a blocking factor for women's access to salaried employment. When the woman's risk of having children under the age of six increases by 1%, the probability of the woman participating in MLS decreases by 70.70%, all other things being equal.

We can therefore conclude that the OLS of women in Cotonou is a positive function of the "vidomègon", of the "level of education", of the "income offered". On the other hand, it is negatively linked to the husband's income, to non-wage income and to children under the age of six possessed by the wife. It should however be noted that the effect of the "vidomègon" variable remains more determining in the expression of this OLF.

In addition, it is important to note through these results and in confirmation of those of the descriptive analysis (see Appendix 2) that married women participate less in the labor market. Spousal variables, such as: "husband's decision", "husband's income", etc. also seem to explain it in the previous econometric

specification. This very relevant observation leads us to look more specifically at the issue of participation in the labor market for married women.

## 5.2. Determinants of the Paid Labor Supply of Married Women in Cotonou

To identify the factors determining the supply of salaried labor (OLSM) of married women, we have retained the following eight (8) variables, taking into account the observations made at the level of the previous specification.

Dependent variable: OLSM

AGE: age; NIV: level of education of the married woman; EM6: children under six; VID: foster child or vidomègon; DM: husband's decision; RM: husband's income; STAPMA: professional status of husband; RNS: non-wage income

Moreover, it is also necessary here to test the endogeneity of the "vidomègon" variable in the model of participation in the MLS of married women in Cotonou. The results of this test are presented in **Table 3**.

This Hausman test tells us that the "vidomègon" variable is exogenous in the model for estimating the participation of married women in Cotonou in the MLS. Indeed, the probability of the Hausman test (0.3685) is greater than 10%. This testifies to the exogeneity of the "vidomègon" variable.

### • The explanatory model

The estimates of the Logit model of the paid labor supply of the married woman are presented as below in **Table 4**.

The significance table indicates that 94.34% of cases are correctly classified. 0.94340 being close to 1, the model is globally significant. Therefore the quality of the estimation of the proposed model is acceptable.

The parameters of the married women's OLS equation show that the OLS is influenced by several factors.

**Table 3.** Hausman test and exogeneity of the variable "vidomègon" in the MLS participation model of women in Cotonou.

	(b)	(B)	(bB)	sqrt (diag(V <sub>b</sub> -V <sub>B</sub> ))
	eq1		Difference	SE
ID	1.6742	0.2318	1.4424	0.4404
VIN	-0.0632	0.0727	-0.1359	0.0767
STAPMA	0.0529	0.057	-0.0041	0.0586
AGE	-0.0027	-0.0025	-0.0002	0.0085
DM	0.0979	-0.01415	0.1121	0.1131
RM	-0.0377	-0.2031	0.1654	0.1395
EM6	-0.0214	-0.212	0.1906	0.1923
RNS	0.1578	-0.334	0.4918	0.2454

b = consistent under H<sub>0</sub> and H<sub>a</sub>; obtained from drunk. B = inconsistent under H<sub>a</sub>, efficient under H<sub>0</sub>; obtained from regress.

**Table 4.** Equation of participation in the wage labor market for married women (logit estimate).

<b>Dependent variable</b>		Logit: wage labor market participation of married women				
independent variables	B-parameters	ES	Wald	Sig F <sup>1</sup>	Marginal effects	
AGE	-0.113	0.081	1937	0.164	-0.0249	
VIN	1638	0.886	3418	<b>0.065</b>	0.3831	
STAPMA	2548	1712	2215	0.137	0.5629	
DM	-1.201	1431	0.704	0.401	-0.2627	
ID	5588	2411	5372	<b>0.020</b>	0.4218	
RNS	-3.291	1671	3879	<b>0.049</b>	-0.6786	
RM	-2.022	1230	2702	<b>0.100</b>	0.8324	
EM6	-3.675	1875	3841	<b>0.050</b>	-0.6528	
Constant	-2.948	3.975	0.550	0.458		
<b>“-2Log likelihood”</b>				<b>21,228</b>		
<b>KHI2/Sig KHI2</b>				<b>125.568/0.000</b>		
<b>Cases correctly classified/N</b>				<b>94.340/100</b>		

<sup>1</sup>Probability that the coefficient is equal to zero; Wald statistics with Logit.

In accordance with the previous specifications, the weight of the “vidomègon” variable in explaining the OLS of the married woman is still preponderant. We observe once again that the variable children placed in “vidomègon” is a determining factor in the probability of participation of married women in the MLS and represents the most dominant variable in the model. In fact, the positive sign and the significant value of this variable imply an increased probability of access to the labor market. Statistically significant at the 5% level, this variable exerts a positive influence on OLS and considerably increases the woman’s incentive to participate in the MLS. When the chance of harboring a “vidomègon” increases by 1%, the probability that the woman participates in the MLS increases by 83.24%.

In addition, the parameters in **Table 4** indicate that the decision of a married woman from Cotonou to take up paid employment is influenced by other factors. Variables such as “husband’s income”, “children under six” and “non-salaried income” each have a significant influence on the participation of married women in Cotonou in the paid labor market.

First, the coefficient of the NIV variable is statistically significant and the regression indicates that the OLS is an increasing function of educational level. Education therefore increases the probability of participating in MLS. A one-year increase in educational attainment increases the probability of the woman participating in MLS by 0.38.

Next, the possession of children under the age of six in her charge negatively



influences the OLS and is therefore a factor that blocks women's access to the MLS. When the risk that the woman has children under six increases by 1%, the probability that she will access the MLS drops by 67.86%.

Finally, the OLS is also a negative function of "husband's income" and of the wife's "non-wage income". The higher the husband's income, the lower the chance that the married woman will make the decision to participate in MLS. For one additional unit each of husband's income and non-wage income, the probability of the wife participating in MLS decreases by 0.42 and 0.65, respectively. As we have seen previously, the negative effect of the husband's income is less than that exerted by non-wage income.

Furthermore, contrary to all expectation, "husband's professional status", "husband's decision" and "age" did not significantly influence the participation of married women, but each showed the expected sign.

In summary, participation in the paid labor market of married women in Cotonou is significantly explained by several variables. In order of degree of expression, we have the variables: "vidomègon", "non-salaried income", "children under six", "level of education" and "husband's income".

All of these results call for policy implications. These economic policies relate to:

- The formalization of the "domestic guard" profession.

## **6. Economic Policy Implications**

The economic policies within the framework of this research relate essentially to:

- The formalization of the "domestic guard" profession,
- Encouraging women to study for a long time.

### **6.1. Policy for the Formalization of the "Domestic Care" Profession**

The possession of children under the age of six by the Cotonou woman is a blocking factor for her participation in the salaried labor market. On the other hand, the need to reconcile professional life and family obligations is a challenge for parents who have ambitions for their posterity, hence the importance of "vidomègon". However, this practice seems contrary to the legal texts which stipulate that every little girl must go to school and cannot be forced to take on family responsibilities. Therefore, the public authorities have many reasons to promote policies favorable to the professionalization of the profession of "domestic care" attributable to adults. The State must seek to formalize this profession so that its exercise is regulated by the Labor Code. In doing so,

### **6.2. Incentive Policy for Women in Long Studies**

The study revealed the importance of a woman's education in her decision to participate in the wage labor market. When we know that education is a key factor in the development and well-being of every individual, we must also rec-

ognize that it represents a formidable tool for social, economic and political integration. For women, it promotes better control of population growth, a drop in maternal and infant mortality, an improvement in productivity and therefore income. Admittedly, Benin is one of the countries that have conducted information campaigns to sensitize communities to the essential nature of girls' education. However, the country will have to go far in its policy by encouraging young women to invest in long studies. In effect, the parental or even sexist stereotype revealed by the present study shows that an educated woman gives her daughter more chances in terms of education and PMLS. In view of the above, the government and civil society must work alongside women to encourage female secondary school leavers, (for example), by offering special scholarships to the best of them, in order to promote a longer period of schooling.

## 7. Conclusion

The main purpose of this work is to research the specific link between the practice of "vidomègon" and the participation of Cotonoise women in the labor market. The approach taken uses the logit model to determine the factors influencing the labor supply of women from Cotonou in salaried employment. It shed light on the role of the "vidomègon" variable in the participation in the salaried labor market of Cotonoise women whether they are married or not.

In view of the results obtained, it appears, in addition to the "vidomègon" variable, that the variables: "non-salaried income", "children under six", "level of education" and "husband's income".

Furthermore, the results of this study partially agree with those of Mincer (1962) and those of Nakamura et al. (1979), with regard to the variables: "educational level" and "husband's income". They partly contradict, on the one hand, those of Lachaud (1997) who insist on the variables "level of education of the parents" and "professional status of the parents" which they find relevant, and on the other hand, those of Pailhé (1998) who estimate that the "husband's income" does not significantly affect the probability of women's participation in the paid labor market.

Finally, the analysis that we have just presented on the labor supply of women in Cotonou does not cover the whole country. In fact, it sheds light on the difficulties experienced by these women before they enter the Cotonou labor market. It would be interesting for subsequent studies on this concern, to draw inspiration from it for the consideration of the entire national territory.

## Conflicts of Interest

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

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## Appendix 1: Explanatory Variables, Types, Modalities and Expected Signs

Variable	Nature	Terms	Expected signs
Educational level	Qualitative	1 = no level 2 = CPCE 3 = primary without CEPE 4 = lower secondary 5 = upper secondary 6 = superior	+
Children under six	Qualitative	1 = yes 0 = no	-
Placed child or "vigomègon"	Qualitative	1 = yes 0 = no	+
Neighbor (relative, friend or guardian)	Qualitative	1 = yes 0 = no	+
Income offered	Qualitative	1 = yes 0 = no	+
Salary non-labour market income	Qualitative	1 = yes 0 = no	-
Father's level of education	Qualitative	1 = no level 2 = CPCE 3 = primary without CEPE 4 = lower secondary 5 = upper secondary 6 = higher	+/-
Mother's level of education	Qualitative	1 = no level 2 = CPCE 3 = primary without CEPE 4 = lower secondary 5 = upper secondary 6 = superior	+/-
Husband's income	Qualitative	1 = yes 0 = no	+/-
Husband's decision	Qualitative	1 = yes 0 = no	-
Discrimination	Qualitative	1 = yes 0 = no	+/-

## Appendix 2: Descriptive Analysis of Results

We can therefore understand, from our sample, that in general:

- The women of Cotonou have a low level of education, not exceeding 10 years of study;
- The majority of employed women in Cotonou are married;

- Their level of education, exceeding 6 years of study, would be a determining factor in the exercise of salaried employment and their participation in the salaried labor market (MLS) would be a positive function of the level of education.
- The level of education of the husband would be a factor that positively influences the decision of married women to participate in the paid labor market;
- The professional status of the husband would be a determining factor for married women in the exercise of salaried employment;
- The salaried status of the father or the mother would be a factor that positively influences the woman's access to the MLS;
- The majority of salaried women earn between 50,000 and 200,000 and the monthly gain is linked to their participation in the MLS.
- The child would not be a blocking factor for women wishing to access salaried employment;
- The children placed in shelters would constitute for the woman, especially for the married one, a factor which positively influences her participation in the MLS;
- The level of education of the father seems to be a factor favoring access to salaried employment for women;
- Finally, marriage does not seem to be a blocking factor for women in terms of their participation in the paid labor market.