International Journal of Business Management and Economic Review

Vol. 7, No. 04; 2024

ISSN: 2581-4664

EXPORT DIVERSIFICATION AND FEMALE LABOR FORCE PARTICIPATION: THE CASE OF ECOWAS COUNTRIES

Mariama DIOP

Ph.D. candidate, The pan-African University Institute of Governance, Humanities, and Social Sciences of Yaoundé (Cameroon)/ Cheikh Anta Diop University of Dakar (Senegal)

http://doi.org/10.35409/IJBMER.2024.3591

ABSTRACT

Objective: The study investigated the effect of export diversification on women's labor force participation in ECOWAS countries.

Material and Methods: We employed the ordinary least squares estimation technique then the fixed-effects model for a panel of 15 countries of ECOWAS with data ranging from 2000 to 2020, collected from the databases of the world development indicators and UNCTAD.

Results: The study has indicated that export diversification in ECOWAS countries increase the female labor force participation rate.

Conclusion: We recommended that the governments of ECOWAS countries should not only provide incentives to expand the export basket, but also support businesses that need a female workforce for more inclusive growth in their countries.

Keywords: Export Diversification, Female Labor Force, Ecowas Countries.

1. INTRODUCTION

Most developing countries still face issues of poverty, underemployment, and unequal access to formal job opportunities, especially for women. Undoubtedly, both in developed and developing countries, women continue to be disadvantaged in the labor market compared to men (Engemann et al. 2006). In fact, the labour force participation rate for women has fallen by 3.4% worldwide between 2019 and 2020, compared with 2.4% for men (Global Gender Gap Report 2023). The significant influx of women into the labor market over the past forty years has led to notable changes in the availability and demand for skilled female labor. Women's labor force participation rates vary significantly from one country to another. In recent years, it has increased significantly for most countries and has generated a significant body of literature. Worldwide, women earn a smaller share of wages, but from a contextual perspective, trade can increase women's wages and enhance economic equality. Some stylized facts demonstrate this; indeed, according to the WTO report (2020), when developing countries double their exports of manufactured products - typical of developing countries opening up to trade - the share of women in total wages in the manufacturing sector increases by an average of 5.8 percentage points, thanks to increased employment combined with higher wages. (World Bank and WTO, 2020). In Africa, the female population represents 50% of the total, however, despite their numbers, women are less represented than men in the labor market (Mbaye and Gueye, 2018). They account for over half of agricultural production, the majority of small trade and services as well, but they have much less access than men to wage employment and the secondary sector. Consequently, women constitute a significant source of untapped labor. In some countries in the region, the share of women in any type of employment is around 40%, while in countries like Benin, Togo, and Guinea, it exceeds

Vol. 7, No. 04; 2024
ISSN: 2581-4664

50%. However, the proportion of women in total paid employment is very low in most countries (ILOSTAT, 2020). Thus, in a context of increasing globalization where the need for labor in general, and female labor in particular, is growing, it is essential to understand the impact of successful export diversification on women's participation in the labor market, as it increases production and exports and therefore the opportunity cost for women who stay at home.

However, despite the significant benefits of exporting new varieties, little attention has been paid to the effects of trade policies aimed at strengthening the range of exported products or consolidating the existing export base. Most empirical studies on the effects of export diversification have mainly focused on economic growth (Bahajji and Ouazzani, 2021); (Kouassi, 2020); (Olaleye et al., 2013); (Sannassee et al., 2014). These studies generally conclude that better export diversification has a positive impact on the economic growth of countries (Teignier, 2018). In light of this context, this study examines the contribution of export diversification to women's participation in the labor market, focusing on the specific case of ECOWAS countries and making several contributions to the literature. To do this, we empirically test the link between export diversification and women's participation using Ordinary Least Squares (OLS) method first and then with the fixed effects method for the period 2000-2020.

2. LITERATURE REVIEW

There is a fairly significant and varied literature on women's participation in the labor market. Some of these studies have focused on the determinants of women's participation and have identified several components such as fertility, human capital, budget constraints, and urbanization (Wiredu et al. (2021); Patel, 2019; Kiani, 2013). In addition to these determinants of women's participation in the labor market, there are also several studies that have highlighted the role of trade and export diversification on women's employment. Indeed, it is established that the impact of trade liberalization on labor markets could be gender-specific for two main reasons: the first is related to supply; women's decision to enter or exit the labor market depends on household income. If trade liberalization increases household incomes, women may decide to leave the labor market, especially in relatively poor countries (Wang et al., 2019; Klasen et al., 2021). The second reason is related to demand; international trade induces competition, which could reduce discriminatory behaviors by increasing the relative demand for female employees (Becker, 1957; Black and Brainerd, 2004; Hirata and Soares, 2016). Furthermore, trade liberalization could either reduce the intensity of female employment (Sauré and Zoabi, 2014) or increase it in export sectors (Gaddis and Pieters, 2017), depending on whether female and male workers are substitutable or complementary (Wang et al., 2019). In a study on how trade openness affects female labor, Lee et al. (2020) found a non-linear threshold effect between trade openness and female labor force participation in Asian countries for the period from 1990 to 2016, with the female labor force participation rate initially increasing with the increase in trade openness, then decreasing. In the same context, Wamboye and Seguino (2012) tested the impact of economic and trade structure on women's employment in Sub-Saharan Africa, using unbalanced panel data for 38 countries over the period 1991-2010. The results indicate that trade liberalization has an impact on women's employment, the direction of which depends on the economic structure and varies from sector to sector.

In recent work, Ghosh (2022) studied the effect of trade diversification on gender inequality in Indian labor force participation, using a simultaneous equation model and annual data for the

Vol. 7, No. 04; 2024
ISSN: 2581-4664

period 1991-2019. The results confirm that trade diversification has a significant negative impact on women's participation in the labor market, while the squared term of trade diversification has a positive impact on women's labor market participation (indicating a non-linear relationship), suggesting that rapid trade diversification can enhance women's participation in the labor market. Other research studies have also provided evidence of the positive impact of export diversification on the involvement of women in the labor market (Lawless, 2010; Hausmann and Hidalgo, 2011). Diversifying exports aids in the efficient allocation of resources, leading to heightened levels of productivity within industries. This surge in productivity serves to diminish gender disparities, thus fostering a greater presence of women in the labor force. Recent investigations have additionally revealed that economic growth propelled by exports in lower- and middle-income nations correlates with enhanced job prospects for women (Schultz, 2007). In a study by Naif and Binmahfuth (2023), emphasis was placed on the form of export diversification that bolsters job opportunities for women in developing and emerging economies. Their findings highlighted that the integration of new products into the export mix (extensive export diversification) exerts a more pronounced influence on female labor force participation.

3. MATERIALS AND METHODS

3.1 Dependent Variables

Women's participation in the labor market is defined as the engagement or availability to take part in economic activities included in the System of National Accounts (SNA) according to the United Nations Development Program of 1995. It is measured by the labor force participation rate of the female population aged 15 to 64 (Modeled estimate from the ILO). It is calculated by the ratio of women employed to the working-age population multiplied by 100. Data on women's labor market participation is available in the International Labour Organization (ILO) database.

3.2 Independent Variables

Export diversification, which is the variable of interest, represents the variability of products exported by a country (Le et al., 2020). This variable measures the degree of diversification of exported products, as opposed to the market diversification index that assesses the variability of markets. The diversification index used here is the standardized Herfindahl-Hirschman index provided by the United Nations Conference on Trade and Development (UNCTAD) in the UNCTAD Stats database (2020). These data complement the concentration index and are calculated using the method proposed by Cadot et al. (2011) based on the following relationship:
Diversification = 1 - concentration.
The HHI is a statistical tool used to measure market concentration as well as the diversity of destinations for Canadian exports. HHI values range from 0 to 1, with values close to 0 indicating highly diversified exports and values close to 1 indicating highly concentrated exports. The decision to use this index is based on the fact that it is both the simplest to implement programmatically and the most commonly used in the literature on export diversification.

3.3 Control Variables

To analyze the relationship between women's participation in the labor market and export diversification, we introduce a set of socio-economic variables into the model below, such as:
GDP per capita: GDP per capita is the gross domestic product divided by the mid-year population.

Vol. 7, No. 04; 2024
ISSN: 2581-4664

GDP is the sum of the gross value added by all resident producers in the economy, plus any taxes on products, minus any subsidies not included in the value of the products. It is calculated without deducting depreciation of manufactured assets or depletion and degradation of natural resources. The data is expressed in constant 2015 US dollars (World Bank, 2023). It is also viewed as a proxy for household income (Tam, 2011). Indeed, some authors argue that women's entry into the labor market depends on the household income level (Kiani, 2013; Gakou and Kuepie, 2008). Gakou and Kuepie (2008) have shown that women's integration into the labor market is higher in the poorest households in Mali. As for Kiani (2013), using a Tobit model on data from the Integrated Household Economic Survey in 1991 and 2006 in Pakistan, found a negative impact of income level on women's labor market participation. Bhalotra and Umana-Aponte (2010) highlight a countercyclical effect of women's labor supply in Asia and Latin America: it increases when economic conditions are unfavorable and decreases when they are favorable.

The urbanization rate of the population: The urban population refers to people living in urban areas as defined by national statistical offices. This indicator shows the concentration of populations in cities. It is calculated based on demographic estimates from the World Bank and urban ratios from the United Nations World Urbanization Prospects. The aggregation of urban and rural populations may not correspond to the total population due to differences in country coverage (World Bank, 2022). Urbanization could be another factor that positively influences women's participation in the labor market as it offers a wide range of appropriate paid jobs, particularly in services, as well as infrastructure that facilitates their access to the labor market (King, 1978). However, some authors such as Tansel (2001) and Uraz et al. (2010) have shown in the case of Turkey a negative relationship between the urbanization rate and women's participation in the labor market. For them, due to the predominance of the agricultural sector in the Turkish economy, the urbanization rate contributes to reducing women's participation in the labor market.

Natural resources: The total rent from natural resources is the sum of oil rent, natural gas rent, hard and soft coal rent, mineral rent, and forest rent (World Bank, 2021).

Secondary school enrollment rate for girls: The completion rate of the first cycle of secondary education is measured as the gross admission rate to the last year of the first cycle of secondary education (general and pre-vocational). It is calculated as the number of new entrants in the last year of lower secondary education, regardless of their age, divided by the population of the age to enter the last year of lower secondary education (UNESCO, 2022). The majority of empirical research on the determinants of women's participation in the labor market in developed countries considers the accumulation of human capital (education, work experience) as the cornerstone for women to work outside the family sphere (Patel, 2019 and Sahoo and Klasen, 2018). Indeed, women with a high level of education are more likely to access and maintain paid employment (Chamlou et al., 2011; Kiani, 2013) compared to those with low levels (Attioui et al., 2017). However, some authors have found a negative correlation between education and women's labor market participation in India (Sorsa et al., 2015 and Mehrotra and Parida, 2017).

Pregnant women receiving prenatal care: it is the percentage of women who are seen at least once during their pregnancy by a qualified health care provider for pregnancy-related reasons. Quality prenatal and postnatal care improves maternal health and reduces maternal and infant mortality. However, indicators on the use of prenatal care services do not provide any information on the content or quality of the services. Data on prenatal care mainly come from household surveys, which ask women who have had a live birth if they received prenatal care and from whom.

Vol. 7, No. 04; 2024
ISSN: 2581-4664

Proportion of seats held by women in the national parliament: Women in parliaments represent the percentage of parliamentary seats in a single chamber or lower house occupied by women (World Bank, 2021).

Access to domestic credit: Domestic credit to the private sector refers to financial resources provided to the private sector by financial corporations, for example in the form of loans, purchases of non-participating securities, trade credits, and other accounts receivable, which establish a claim for repayment (IMF, 2022).

Fertility rate: The total number of potential births for a woman, assuming she survives until the end of her fertility period and gives birth to children at each age according to the prevailing age specific fertility rates (Bloom et al. (2009); De Jong (2016)). Several empirical studies have examined the influence of fertility on women's participation in the labor market. In most cases, fertility has a negative impact on women's participation (Bloom et al., 2009; De Jong, 2016; Sangaji et al., 2018;). Thus, having a child reduces the likelihood of women entering the labor market. Contrary to previous authors, Herrera et al. (2019) and Idowu and Owoeye (2019a) argue that motherhood increases women's employment probability (aged 21 to 25) as women whose first birth occurs during adolescence quickly access the labor market. In West Africa, Kenneth and Kponou (2022) have shown that fertility had a positive effect in some ECOWAS countries (0.155 for Benin, 0.597 for Senegal, and 0.059 for Côte d'Ivoire) when participation is measured by all paid or unpaid activities.

3.4 Model Specification

To examine the relationship between women's labor market participation and export diversification, we use the following panel model:

$$\boldsymbol{FLFP_{i,t} = \delta Exp\_Div_{i,t} + X'\beta + \mu_i + \tau_t + \epsilon_{i,t}} \quad \text{(E1)}$$

In this equation, the variable $\boldsymbol{FLFP}_{i,t}$ represents the women's labor market participation rate in country i during year t. $\boldsymbol{Exp\_Div}_{it}$ is the value of export diversification measured by the Herfindahl index ranging between 0 (low concentration) and 1 (high concentration). $X'$is a vector of control variables taking into account socio-economic variables. μ_i et τ_t represent country fixed effects and time fixed effects, respectively. $\in_{i,t}$ is an error term.

Vol. 7, No. 04; 2024
ISSN: 2581-4664

Table 1: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	Expected sign
Female labor force participation rate	315	58.07	9.637	34.329	73.835	+
Export diversification IHH	315	.222	.063	.1	.38	
GDP per capta	315	6.888	.575	6.069	8.107	+/-
Urbanization rate	315	41.353	11.43	16.186	66.652	+
Natural resources	315	1.963	.654	.705	3.698	+/-
Secondary school enrollment rate for girls		-.276	.897	-1.661	2.223	+
Prenatal care	96	84.095	14.624	34.7	99	+
Proportion of seats held by women in the national parliament	300	12.592	7.093	1.205	43.333	+
Access to domestic credit	315	3.980e+08	6.387e+08	779172.6	5.948e+09	+

Source: Author, based on WDI (World Bank) and UNCTAD

Table 2: Correlation between variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) Female labor Force Participation	1.000					
(2) Exp_Div	-0.309	1.000				
	(0.000)					
(3) GDP per capta	-0.244	-0.064	1.000			
	(0.000)	(0.256)				
(4) Urbanization rate	-0.236	0.202	0.575	1.000		
	(0.000)	(0.000)	(0.000)			
(5) Natural Resources	0.368	-0.04	-0.145	-0.119	1.000	
	(0.000)	(0.669)	(0.010)	(0.035)		
(6) Secondary school enrollment rate for girls	-0.103	0.383	0.083	0.385	-0.157	1.000
	(0.067)	(0.000)	(0.142)	(0.000)	(0.005)	

We estimate equation (1) first using the Generalized Least Squares (GLS) method. Generalized Least Squares regression extends Ordinary Least Squares (OLS) estimation of the normal linear model by taking into account potentially unequal error variances and correlations between different errors. This method has been used in the works of Binmahfuth (2023) and Kouassi and Tape (2024). Then, we employ panel fixed effects which help control for country-specific effects and time effects, potentially enhancing the accuracy of estimating the effects of independent

Vol. 7, No. 04; 2024
ISSN: 2581-4664

variables on the dependent variable, which is PFMT. Country fixed effects capture country-specific factors that are constant over time and may influence women's labor market participation, such as geographical location. Time fixed effects capture the effects of factors that simultaneously affect women's employment policy across countries, such as policies combating gender inequality in different countries within the region. This method has been used in the work of Binmahfuth (2023).

4. RESULTS

Table 3: Econometrics results: Effects of export diversification and control variables on Female labor Force participation (MCO)

Variables	(1)	(2)	(3)	(4)	(5)	(6)
Exp_Div	-17.277***	-12.831**	-21.145**	-19.807**	-20.491**	-25.936***
	(5.076)	(5.122)	(9.015)	(9.971)	(9.921)	(9.755)
Urbanization rate		-0.205***	-0.127	-0.172	-0.130	0.109
		(0.056)	(0.103)	(0.107)	(0.119)	(0.158)
Prenatal Care			-0.059	-0.075	-0.076	-0.030
			(0.043)	(0.048)	(0.048)	(0.050)
Proportion of seats held by women in the national parliament				0.094	0.094	0.122*
				(0.076)	(0.076)	(0.073)
Access to domestic credit					-0.000	-0.000

Vol. 7, No. 04; 2024
ISSN: 2581-4664

					(0.000)	(0.000)
Fertility rate						4.060**
						(1.824)
Constant	71.510***	76.519***	84.669***	85.687***	84.937***	55.874***
	(4.530)	(4.687)	(7.901)	(8.499)	(8.551)	(15.660)
Observations	315	315	96	91	91	91
Number of countries	15.00	15.00	15.00	15.00	15.00	15.00
R^2	0.04	0.08	0.15	0.21	0.23	0.30

p < 0.10, ** p < 0.05, *** p < 0.01

The robust Huber-White standard errors are in parentheses. The dependent variable, (Txparfem), represents the Female Activity Rate (% of the female population aged 15 to 64) (modeled estimation from the ILO). The activity rate is the proportion of the population aged 15 to 64 that is economically active: all women who provide labor for the production of goods and services during a given period.

Table 3 presents the results of the contribution of export diversification to women's participation in the labor market using OLS. The obtained results are valid both econometrically and economically. It is important to note that for interpreting the results, negative/positive coefficients are interpreted as positive (negative) effects of diversification, as export diversification increases with the decrease in the concentration index of exports.

5. DISCUSSIONS

5.1 Analysis by MCO

The analysis of this table shows the existence of a negative and significant correlation between women's participation in the labor market and export concentration in ECOWAS. This means that a decrease in export concentration would increase female employment in the countries of the region, and consequently, an increase in export diversification would also lead to an increase in women's labor market participation. The coefficient of the Export Diversification Index (DE IHH) is negative and statistically significant at 1%. This means that an increase in export concentration has a negative effect on increasing the female participation rate; alternatively, an increase in export diversification increases women's participation in the labor market. Table 3 also shows a negative correlation between women's participation and certain control variables, namely GDP per capita and population urbanization. Gross Domestic Product promotes export concentration in ECOWAS, which decreases women's participation, as its coefficients are negative and statistically significant in all specifications. Therefore, we can conclude that an increase in income levels is not associated with an increase in female employment once control variables are included in the specification. Furthermore, the absence of a U-shaped relationship could indicate that the strong economic growth experienced by ECOWAS countries in recent years has not immediately translated into decent job creation for women (Mbaye and Gueye, 2018). This negative link can also be explained by the fact that women's work can be considered a form of insurance, which is activated only in case of economic difficulties for the head of the household.

Vol. 7, No. 04; 2024
ISSN: 2581-4664

Regarding urbanization, the results indicate a negative relationship between the urbanization rate and women's participation in the labor market. This implies that an increase in the urbanization rate leads to a decrease in female labor market participation. Urbanization typically plays a positive role in women's involvement in the labor market norms. However, unlike the results of Tsani and al. (2013) in 160 countries and Chapman (2015) in the MENA region, our results showing the negative correlation between the urbanization rate and women's labor market participation in ECOWAS can be partly explained by the migration of women from rural areas to urban areas in an economy that is mainly focused on agriculture. Rural exodus leads to a decrease in women's labor market participation because even if they were active in rural areas, they become inactive upon their arrival in cities. This is in line with research conducted by Attioui et al (2017) in Morocco. According to them, this decrease in women's involvement in the labor market is also attributable to a lack of skills resulting from a low level of education among these migrants.

However, there is also a positive correlation between women's participation, natural resources, secondary school enrollment rate, and fertility. Indeed, econometric analysis shows the crucial role of human capital for women's work. The positive relationship between secondary education and women's participation in the labor market is in line with human capital theory. Unlike the results of Mehrotra and Parida (2017) in India, completing secondary education leads to an increase in labor supply for women in ECOWAS. The opportunity cost of not working increases as women's education levels increase. In this way, the more educated a woman is, the more willing she is to enter the labor market. Our results are consistent with research conducted by Idowu and Owoeye (2019a) in Africa. Their results indicate that women with higher levels of education have more opportunities to access and maintain employment than those with lower levels of education.

The fertility rate is the most commonly examined demographic indicator in studies concerning women. Given that an increase in the fertility rate will prevent women from participating in the labor force due to the time required for job search and childcare, it will have a decreasing effect on women's labor force participation. However, our results do not confirm the accuracy of this relationship. In fact, we find that in ECOWAS countries, fertility has a positive and slightly significant effect on women's participation in the labor market. This can be explained by the fact that women who already have children have more responsibilities and therefore aspire more to access the labor market. The results of the study conducted by Herrera et al. in 2019 in Madagascar suggest that motherhood increases the likelihood of employment for women aged 21 to 25, especially those whose first motherhood occurs during adolescence. Furthermore, young mothers and teenage mothers are respectively 35% and 60% more likely to access the labor market than those who do not have children yet. However, it is important to note that the jobs held by these women are often informal and precarious.

5.2 Robustness analysis: Fixed-effects model

Vol. 7, No. 04; 2024

ISSN: 2581-4664

Table 4: Econometrics results: Effects of export diversification and control variables on Female labor Force participation (fixed-effects Model)

	(1)	(2)	(3)	(4)	(5)	(6)
Exp_Div	-18.624***	-13.910***	-24.704***	-26.029***	-27.740***	-25.936***
	(5.073)	(5.166)	(9.228)	(9.645)	(9.716)	(9.755)
Urbanization rate		-0.201***	-0.103	-0.184	-0.096	0.109
		(0.058)	(0.115)	(0.121)	(0.141)	(0.158)
Prenatal Care			-0.057	-0.076*	-0.076*	-0.030
			(0.044)	(0.045)	(0.045)	(0.050)
Proportion of seats held by women in the national parliament				0.162**	0.151**	0.122*
				(0.073)	(0.073)	(0.073)
Access to domestic credit					-0.000	-0.000
					(0.000)	(0.000)
Fertility rate						4.060**
						(1.824)
Constant	72.559***	77.197***	85.603***	89.553***	87.836***	55.874***
	(3.951)	(4.106)	(7.651)	(7.764)	(7.867)	(15.660)
Observations	315	315	96	91	91	91
Number of countries	15.00	15.00	15.00	15.00	15.00	15.00
R^2	0.04	0.08	0.15	0.22	0.24	0.30

p < 0.10, ** p < 0.05, *** p < 0.01. The robust Huber-White standard errors are in parentheses. The dependent variable, (Txparfem), represents the Female Activity Rate (% of the female population aged 15 to 64) (modeled estimation from the ILO). The activity rate is the proportion of the population aged 15 to 64 that is economically active: all women who provide labor for the production of goods and services during a given period.

Vol. 7, No. 04; 2024
ISSN: 2581-4664

Table 4 also analyzes the effect of export diversification on women's participation in the labor market using the fixed effects method and taking into account the heterogeneity of ECOWAS countries. Indeed, studies have shown the existence of strong heterogeneity among countries in ECOWAS (Djogbenou et al., 2018) due to differences in sizes, economic structures, and socio-cultural contexts. The econometric analysis in Table 3 shows that export diversification positively contributes to women's participation in the labor market in ECOWAS countries. The coefficient of the export diversification index (Exp_Div) is negative and statistically significant. The table shows a significant negative correlation between women's participation in the labor market and export concentration in ECOWAS. This means that a decrease in export concentration would increase female employment in the countries of the zone, and therefore an increase in export diversification would also lead to an increase in women's participation in the labor market. This implies that an increase in export concentration has a negative effect on increasing women's labor force participation; alternatively, an increase in export diversification enhances women's participation in the labor market.

Per capita income, on the other hand, has a significant negative correlation at 1% with women's participation in the labor market. Gross domestic product promotes export concentration in ECOWAS, which results in decreased women's participation. Therefore, we can also conclude, as with Table 1, that increasing income levels are not associated with an increase in women's employment rates in ECOWAS countries. Table 4 also presents the results of the control variables' effects on women's participation in the labor market in ECOWAS countries. It also shows a negative correlation between women's employment rate and certain control variables, notably population urbanization, confirming the results obtained by OLS. Indeed, the coefficient of population urbanization is negative and significant at 1%. This implies that an increase in urbanization rate leads to a decrease in female labor force participation, as observed in Table 3 with ordinary least squares (OLS).

6. CONCLUSION

Many developing countries, especially those in West Africa, have adopted export-oriented development strategies, focusing on the nature and content of the export basket. Export diversification has been the main prescription in this paradigm. In another research field, scholars examine the determinants of women's participation in the labor market, focusing on socio-economic and cultural factors. We address this gap by presenting export diversification as a potential determinant of women's labor market participation rates. We use the Herfindahl-Hirschman diversification index as an independent variable. Since successful export diversification increases the demand for labor, including female labor as expected, we find that export diversification increases women's labor market participation rates in the 15 ECOWAS countries over the period 2000-2020. As the introduction of a new product strongly reflects extensive export diversification, tapping into underutilized female labor in developing countries justifies the establishment of a policy framework supporting extensive export diversification. Furthermore, the expansion of the service sector has played a prominent role in export diversification programs, and this structural change in turn encourages women to opt for paid employment in the formal sector. Technological improvements favoring intellectual work also enable women to work in the formal sector. Thus, export diversification policy generates significant positive externalities by opening up opportunities for underutilized female labor.

Vol. 7, No. 04; 2024
ISSN: 2581-4664

ECOWAS governments should not only provide incentives for expanding the export basket but also support businesses that require female labor.

REFERENCES

Attioui, M., & Lahby, M. (2023, October). Deep Learning-Based Congestion Forecasting: A Literature Review and Future. In 2023 10th International Conference on Wireless Networks and Mobile Communications (WINCOM) (pp. 1-8). IEEE.

Bhalotra et Umana-Aponte (2010)

Black, S. E., & Brainerd, E. (2004). Importing equality? The impact of globalization on gender discrimination. ILR Review, 57(4), 540-559.

Binmahfuth, W. N. S. (2023). The Roles of Intensive and Extensive Export Diversification on Economic Growth and Female Labor Force Participation. Southern Illinois University at Carbondale.

Bloom, D. E., Canning, D., Fink, G., & Finlay, J. E. (2009). Fertility, female labor force participation, and the demographic dividend. Journal of Economic growth, 14, 79-101.

Chamlou, N., Muzi, S., & Ahmed, H. (2011). Understanding the determinants of female labor force participation in the Middle East and North Africa region: The role of education and social norms in Amman (No. 31).

De Jong, E., Smits, J., & Longwe, A. (2017). Estimating the causal effect of fertility on women's employment in Africa using twins. World Development, 90, 360-368.

Djogbenou, R., Kanga, D., & Ouattara, A. (2018). Hétérogénéité des économies de la CEDEAO : Quel défi pour une politique monétaire commune ? *Revue Économique et Monétaire*, *24*, 49-91.

Engemann, K. M., & Owyang, M. T. (2006). Social changes lead married women into labor force. The Regional Economist, (Apr), 10

Gaddis, I., & Pieters, J. (2017). The gendered labor market impacts of trade liberalization: Evidence from Brazil. Journal of Human Resources, 52(2), 457-490.

Gakou, A. D., & Kuépié, M. (2008). Niveau et déterminants de l'insertion des femmes sur le marché du travail au Mali. Statéco, (103), 61-75.

Ghosh, S. (2022). How trade diversification and economic growth affect gender inequality in female labour market participation? The case of India. Journal of Economics and Development, 24(2), 127-141.

Hausmann, R., & Hidalgo, C. A. (2011). The network structure of economic output. Journal of economic growth, 16, 309-342.

Herrera, C., Sahn, D. E., & Villa, K. M. (2019). Teen fertility and female employment outcomes: evidence from Madagascar. Journal of African Economies, 28(3), 277-303.

Hirata, G., & Soares, R. R. (2016). Competition and the racial wage gap: Testing Becker's model of employer discrimination.

Idowu, O. O., & Owoeye, T. (2019). Female labour force participation in African countries: an empirical analysis. Indian Journal of Human Development, 13(3), 278-293.

Kiani, A. (2013). Education is essential for economic growth in Pakistan. African Journal of Business Management, 7(26), 2548.

King, A. G. (1978). Labor market racial discrimination against black women. The Review of Black Political Economy, 8(4), 325-335.

Klasen, S., Le, T. T. N., Pieters, J., & Santos Silva, M. (2021). What drives female labour force

Vol. 7, No. 04; 2024
ISSN: 2581-4664

participation? Comparable micro-level evidence from eight developing and emerging economies. The Journal of Development Studies, 57(3), 417-442.
KOUASSI, D. S. É., & Jean, G. I. M. T. (2024). Le Tarif Extérieur Commun de la CEDEAO est-il un instrument au service de la diversification des exportations des pays membres ? Revue Française d'Economie et de Gestion, 5(1).
Kponou, M. K. C. (2022). The Effect of Fertility on Women's Labour Supply in West Africa.
Lawless, J. L., & Fox, R. L. (2010). It still takes a candidate: Why women don't run for office. Cambridge University Press.
Le, T. H., Nguyen, C. P., Su, T. D., & Tran-Nam, B. (2020). The Kuznets curve for export diversification and income inequality: Evidence from a global sample. Economic Analysis and Policy, 65, 21-39.
Mbaye, A. A., & Gueye, F. (2018). Labor markets and jobs in West Africa.
Mehrotra, S., & Parida, J. K. (2017). Why is the labour force participation of women declining in India? World Development, 98, 360-380.
Olaleye, S. O., Edun, F., & Taiwo, S. B. (2013). Export diversification and economic growth in Nigeria: An empirical test of relationship using a granger casualty test. Journal of Emerging Trends in Economics and Management Sciences (JETEMS), 5(1), 70-79.
Patel, G., & Annapoorna, M. S. (2019). Public education expenditure and its impact on human resource development in India: An empirical analysis. South Asian Journal of Human Resources Management, 6(1), 97-109.
Sangaji, J., & Kurnia, A. S. (2018). Macroeconomic determinants of gender inequality index in eight ASEAN countries. In E3S Web of Conferences (Vol. 73, p. 11002). EDP Sciences.
Sannassee, R. V., Seetanah, B., & Lamport, M. J. (2014). Export diversification and economic growth: the case of Mauritius. In Connecting to Global Markets (pp. 11-23). WTO iLibrary.
Sarkar, S., Sahoo, S., & Klasen, S. (2019). Employment transitions of women in India: A panel analysis. World Development, 115, 291-309.
Sauré, P., & Zoabi, H. (2014). International trade, the gender wage gap and female labor force participation. Journal of Development Economics, 111, 17-33.
Schultz, T. P. (2007). Population policies, fertility, women's human capital, and child quality. Handbook of development economics, 4, 3249-3303.
Sorsa, P., Mares, J., Didier, M., Guimaraes, C., Rabate, M., Tang, G., & Tuske, A. (2015). Determinants of the low female labour force participation in India.
Tam, H. (2011). U-shaped female labor participation with economic development: Some panel data evidence. Economics Lettres, 110(2), 140-142.
Tansel, A., & Tasci, H. M. (2004). Determinants of unemployment duration for men and women in Turkey. Available at SSRN 512222.
Teignier, M. (2018). The role of trade in structural transformation. Journal of Development Economics, 130, 45-65.
UNICEF. (2023). Gender Equality: Global Annual Results Report 2022.
Uraz, A., Aran, M. A., Hüsamoğlu, M., Okkalı Şanalmış, D., & Çapar, S. (2010). Recent Trends in female labor force participation in Turkey. State Planning Organization of the Republic of Turkey and World Bank Welfare and Social Policy Analytical Work Program Working Paper, (2).
Wamboye, E., & Seguino, S. (2012). Economic structure, trade openness, and gendered employment in sub-Saharan Africa. Feminist Economist. University of Vermont, Burlington.

Vol. 7, No. 04; 2024
ISSN: 2581-4664

Wang, S. (2019). The role of gender role attitudes and immigrant generation in ethnic minority women's labor force participation in Britain. Sex Roles, 80(3), 234-245.
Wiredu, J., Yang, Q., Otoo, P., & Igbonaju, J. O. (2021). The Impact of Potency on Feminine Workforce Involvement in West Africa. Evidence from Countries in West Africa. Journal of Business, 9(3), 114-122.