SSRG International Journal of Economics and Management Studies
ISSN: 2393 – 9125 / https://doi.org/10.14445/23939125/IJEMS-V9I11P102

Volume 9 Issue 11, 6-16, November 2022

Original Article

The Determinants of Educational Performance in Togo

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Received: 02 October 2022 Revised: 06 November 2022 Accepted: 18 November 2022 Published: 30 November 2022

Abstract *- The main objective of this paper is to examine the determinants of education performance in Togo. Econometric estimates are implemented using the logistic regression technique and data on 1391 graduate students from the 2019 Togo Occupational Tracking Survey. The results suggest that the determinants of education performance in Togo are gender, education quality, education conditions, mother's education, and household size. However, gender and the quality of education positively influence educational performance, while educational conditions, the mother's education, and household size harm educational performance. Furthermore, the results indicate that age, personal conditions of the student, and the social environment of education do not seem to influence educational performance in Togo significantly. Consequently, to improve the performance of education in Togo, decision-makers must take into account both academic factors and personal and family factors of the student.*

Keywords *- Determinants, Performance, Education, Logistic regression, Togo.*

1. Introduction

The education determinants in developing countries, particularly in Togo, are a major concern for policymakers (UNICEF, 2020; UNESCO, 2020) and researchers (Sothan, 2018; Ntawiha et al., 2021). Indeed, development requires strengthened human capital accumulated through education, the benefits of which are widely observed worldwide (Sothan, 2018). Moreover, just as the African Union Commission, through its Agenda 2063, recognizes the importance of education in Africa's economic development, the United Nations Children's Fund (UNICEF, 2020) recognizes the importance of education as (i) a vehicle for survival and development, is the most effective investment in the fight against poverty, and contributes to improved socioeconomic development; (ii) a means of preventing poverty by increasing income-earning opportunities, and influences positive changes in other socioeconomic indicators; and (ii) a factor that promotes peace within communities, increases citizen participation and strengthens democracies. In addition, the benefits of education have been identified in the literature at the macro and micro levels (Sothan, 2018).

At the microeconomic level, education positively influences the well-being of each individual through its positive effects on productivity, which makes it possible to say that those who have acquired a higher level of education tend to have more economic and social opportunities than those with a lower level. At the macroeconomic level, education contributes to economic development by strengthening human capital considered an engine of economic growth in all countries (Breton 2015; Teixeira and Queirós 2016).

Since Romer's (1993) work on the determinants of student performance, the discussion of these determinants has received considerable attention and continues to be of particular interest in the literature (Schwager et al. 2017). Indeed, the empirical literature shows that certain factors, including personal factors, influence academic performance. For example, Kim et al. (2016) show that age positively impacts academic performance. On the other hand, the work of Duff (2004) and Ebenuwa-Okoh (2010) lead to results indicating that age does not affect academic performance.

In the same sense, Alyoussef et al. (2016) showed that gender positively affects academic performance, whether female students on the one hand or male students on the other hand. However, it is noted that the results of some empirical studies do not allow for the conclusion that gender leads to a significant effect on academic performance in higher education (Andrietti 2014). Among family factors, Naylor and Smith (2005) and Guimarães and Sampaio (2013) show that parental education and family income positively impact student outcomes. On the other hand, Grave (2011) and Zwick (2013) parental education and family income play only a minor role, if any, in student performance. Thus, despite the abundance of publications on this question of the determinants of performance, it is clear that researchers have not yet reached a consensus on the homogeneity of the determinants. We note that the determinants used in one country or region do not necessarily apply to another country or region.

Despite leaders' efforts and substantial progress in getting children into school, the proportion of out-of-school children remains significant. Thus, the number of children of primary and secondary school age not in school in Africa was higher in 2019 (105 million). In addition, West Africa came out on top in 2019 with nearly 42 million primary and secondary school children not in school (UNICEF, 2020). In Togo, the most significant

proportion of out-of-school children is still found in the rural population, representing 88.1% compared to 11.9% in the urban area (PSE, 2020). Thus, significant efforts will have to continue to be made to ensure that the education supply keeps pace with the demand for education. In addition, the pressure on the education and training system is considerable because Togo's high and rapidly growing number of young people represents both a risk and an opportunity. However, if these young people acquire the necessary skills and abilities, they can become an engine of development and economic growth for Togo. The knowledge and skills imparted through quality education contribute to human capital growth, increasing people's productivity and employability and improving overall development where they reside (UNICEF, 2020). By accelerating investments in education and training to meet the sustained growth of the youth population, Togo can take full advantage of its demographic dividend.

The educational situation in Togo has evolved in recent years with curricular reforms, the subcycle policy, the school feeding policy, the teaching policy, the national early childhood development policy, and decentralization leading to an improvement in the level of education. Thus from 2008 to 2018, the gross enrollment rate in primary education increased from 98% to 126.8% (UNESCO, 2019). More than 155,000 children were counted in preschool in 2018 compared to just over 86,000 5 years ago, with an average annual growth rate of 12%. The primary school completion rate rose from 85.4% in 2014 to 91.4% in 2018, confirming the decline observed over the past few years in the average repetition rate (UNESCO, 2019). Indeed, these results have been fostered by programs such as school canteens and regular consultations between the government and sector stakeholders. Similar progress has also been observed in the higher levels, notably in the transition rate between the 2 levels of secondary school (9.7% in 2015 to 10.2% in 2017) or participation in vocational training (1% increase in one year).

Given this evolution of the enrollment rate in Togo, the question of studying the determinants that influence educational performance becomes a necessity. Nevertheless, despite the substantial progress made in basic education (quality, accessibility, and completion), disparities persist, and educational achievements remain insufficient in Togo. Girls and children from the poorest backgrounds, those with disabilities, and those on the move, in particular, face difficulties exercising their right to education. Thus, in Togo, three education policies, namely the Education Sector Plan (ESP) implemented in 2010 to achieve universal quality primary education by 2020, the Education Sector Plan (ESP) revised through a sector diagnosis of the education system in 2012-2013 for the period 2014-2025 and the new Education Sector Plan (ESP) 2020-2030, has been drawn up to promote the education of the most disadvantaged groups. Although they note failures in implementation, their solution is often to institute more rational public management practices and to monitor implementation processes more closely. However, it should be noted that to date, despite all these educational reform policies, there is lethargy and timidity in terms of performance in this area in Togo.

This article aims to evaluate the determinants of educational performance in Togo. Based on previous studies, we assume that personal (age, gender), family (parental education, parental income), and school (school size) factors are the key determinants of educational performance in Togo. We assess the role of these determinants on educational performance using a logistic regression model and data on 1391 Togo higher education and technical education graduate students from the 2019 Occupational Tracking Survey.

This paper contributes to the literature on the determinants of educational performance in two (02) ways. First, to our knowledge, most studies examining the determinants of educational performance focus on Asian, Western European, and US countries (Mincer, 1974; Sothan, 2018) and exclude the case of sub-Saharan African countries, notably Togo, which has a long history in education, perhaps because of the availability of data. Second, most studies to our knowledge analyze the effects of the determinants of educational performance using the ordinary least squares (OLS) method and very little logistic analysis (Sothan, 2018). This paper fills these gaps in the literature by using survey data on 1391 students and logistic regression to assess the determinants of educational performance in Togo. In the remainder of the paper, Section 1 presents the literature review on the determinants of educational performance, followed by the methodological approach in Section 2. The results and interpretations are presented in Section 3, followed by the conclusion.

2. Literature Review on the Determinants of Educational Performance

In this section, we review some previous studies analyzing the determinants of educational performance to outline the current state of the literature and to highlight gaps in the literature.

Theoretically, a consensus seems to be found around the determinants of school performance. Indeed, most researchers agree that educational performance depends on three factors: school, personal, and family (Sothan, 2018). Thus, it is generally found that school factors positively influence educational performance, while personal factors and family factors can positively or negatively influence school performance.

There is a vast empirical literature on predictors of academic performance at all levels of education, from primary to tertiary. As the literature indicates, predictors of academic performance are generally classified into personal, family, and school factors but lead to mixed empirical studies.

For example, Arias Ortiz and Dehon (2008) use student data collected at the University of Brussels to examine the probability of passing the first year of university by controlling for prior education and socioeconomic background. Using the probit model, their results show that a student's socioeconomic background significantly influences their success. Specifically, the mother's education level and the father's professional activity influence students' academic success. Similarly, for Germany, Grave (2011), as well as Zwick (2013), consider socioeconomic factors such as parental education, number of books, and family income when analyzing the determinants of student performance at university. They show that these factors play only a minor role after controlling for high school grades.

Sothan (2018) examines the determinants of the academic performance of 329 selected undergraduate students at a university in Cambodia. Based on the multivariate regression method, he finds that high school level, English ability, course attendance, study effort, academic self-efficacy, and family socioeconomic status positively impact academic performance. In contrast, fixed-term employment and family size harmed academic performance. However, it finds mixed results regarding age, gender, household location, parental education, parental involvement, and teaching evaluation on academic performance. Therefore, the study concluded that personal background played a potential role in predicting undergraduate students' academic performance.

Furthermore, age was found to significantly impact academic performance, with younger students performing better than older students (Wan and Cheo 2012; Nyikahadzoi et al. 2013). On the other hand, some researchers claimed that older students performed better than younger students (Guney 2009; Alhajraf and Alasfour 2014; Kim et al. 2016). On the other hand, other researchers did not support the idea that age influenced the academic performance of higher education students (Duff 2004; Rochford et al. 2009; Ebenuwa-Okoh 2010).

Guimarães and Sampaio (2013) analyze the effect of family background variables on college entrance test scores at a large university in northeastern Brazil. Using ordinary least squares (OLS) and quantile regression, the authors find that parental education positively impacts students' test scores. In addition, the father's education and family income are correlated with the likelihood of attending private school and private tutoring, which positively affects students' test scores.

Kaighobadi and Allen (2008) show the impact of gender on students' academic performance through the SPSS method and found that females scored higher than males in accounting and auditing subjects. Indeed, empirical research has also suggested that there is a gap between the performance of male and female students, with females performing better than their male counterparts in some cases (Alfan and Othman 2005; Kaighobadi and Allen 2008) on the other hand, some researchers have claimed that male students perform significantly better than their female counterparts (Alyoussef et al., 2016). However, other researchers have suggested a small gap in academic performance between male and female undergraduate students (Arnold and Rowaan 2014). In some studies, gender has not significantly impacted academic performance in higher education (Guney 2009; Andrietti 2014).

About the existing literature, we have identified certain limitations that should be noted. The first limitation lies in the fact that previous studies, to our knowledge, have focused more on developed countries to the detriment of underdeveloped countries, including Togo, perhaps because of the unavailability of data on education in the latter. The second limitation is that most studies to our knowledge address the question of the effects of the determinants of educational performance by relying on personal, family, and school factors and the traditional approach is unable to explain the educational performance observed in low-income developing economies, including Togo. This paper fills these gaps in the literature by taking advantage of recent education data to examine the effect of the determinants of educational performance in Togo.

3. METHODOLOGY

In this section, we first present the theoretical model followed by the econometric model, the presentation of the data sources, and the estimation strategy

3.1. The conceptual, Theoretical Model

Regarding the literature, our conceptual model presents the major determinants of academic performance, as shown in the figure below. Our model includes three factors including personal, academic, and family factors. Personal factors include personal condition, age, and gender of the student. Academic factors consist of the quality of instruction, the condition of education, and the social environment of education. Family factors are defined by the mother's education and household size. Based on the literature, personal and family factors are assumed to positively or negatively influence educational performance. According to the literature, school factors positively affect academic performance. (See appendix1)

3.2. The Econometric Model

The dependent variable is PE, which represents the probability that a student will graduate within the regulatory timeframe set by the Togolese authorities. In the present study, PE was used as an indicator of academic performance. Like previous studies, this study uses the logistic regression model below to attempt to assess the determinants of academic performance in the Togolese case. Thus, personal, family and school factors are taken into account. The econometric model is in the following form:

$$PE_i = \alpha + \sum_{i=1}^{n} \beta_i IV_i + \sum_{i=1}^{n} \gamma_i D_i + \varepsilon_t \qquad (1)$$

Where PE is the probability that a student will perform well in Togo. α is the constant, i is an index indicating the data for i^{ème} students, and ε is the random error term. IV denotes the independent variables, which were classified into three factors, namely personal, family and school factors. Personal factors include the student's personal condition and age. Family factors include the mother's education and household size. School variables include quality of education, condition of education, and social environment of education. D Designates dummy variables, including gender, which takes the value of 1 for males and 0 for females. β and γ denote the parameters to be estimated for each independent variable. It was assumed that the coefficient of each independent variable must be significantly different from zero

$$(Ha: \beta_s \neq 0 \; et \; \gamma_s \neq 0).$$

To reduce the number of variables to be included in the model analysis, the principal component analysis (PCA) method is adopted. The PCA method reduces several related variables into a few important ones. Items with low factor loadings (<0.35) or lower representational quality (<0.19) are eliminated. Thus this study reduces the number of variables into four (4) main factors: teaching quality, educational condition, student condition and social environment of education. To test the reliability of the measurement of the main factors, we adopt Cronbach's Alpha internal consistency test (Cronbach, 1951). The measurement of a factor is said to be reliable if Cronbach's Alpha statistic is greater than 0.50. To assess the adequacy of the sampling of the main factors, the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy is adopted. The sample size is sufficient for measuring a principal factor if the corresponding KMO statistic is greater than 0.60.

3.3. Data and Estimation Technique

This research was conducted using a cross-sectional survey to examine the determinants of student academic performance in Togo.

3.3.1. Participants

Based on the study's objective, 1391 graduate students of higher education and technical education in Togo were selected for the academic year 2018-2019. Public universities, private universities, and technical education are concerned with the study. Participants in each university and technical education were selected using a simple random sampling method. Among the selected participants, female students represented 30.2%, and male students 69.8%. The mean age was 31.36 years (SD = 4.838), with a median and mode of 31 and 30 years, respectively. The students we interviewed constitute 20% of high school students and 80% of college students, respectively

3.3.2 The Variables

The dependent variable of the equation is represented by PE, which is a proxy for a student's educational performance in Togo. It measures the probability (the chance) that a student will perform well. It takes the value of 1 when the student graduates within the typical time frame provided by the regulations and 0 if not. To assess the determinants of academic performance, Sothan (2018) used cumulative GPA as a proxy for academic performance. Given the unavailability of this variable in the database used, we opt to use graduation within the normal regulatory time frame as a proxy for educational performance. This proxy constitutes one of the important criteria in determining the level of academic excellence for granting scholarships for excellence by national and international institutions whose mission is to promote and encourage academic excellence. The table below gives the definition and sign of each proxy.

Table 1. Definition of Variables

Variables	Definition of variables	Expected sign
AGE	Number of years the student has been alive since the date of birth	Undetermined
SEX	Gender of the student (a dummy variable that takes the value 1 if the student is male and 0 if the student is female)	Undetermined
Education quality	Quality of teaching measured on a 6-item scale related to the quality of teaching	Positive
Education_condition	Personal condition of education measured on a 10item scale related to personal conditions of education	Positive
Personal condition	Student's personal condition measured on a 6-item scale related to student personal conditions	Positive
Social_Environment_of education	The social environment of education is measured on a 10-item scale related to the education environment.	Positive
Mother's education	Mother's education (a dummy variable that takes the value 1 if the mother has a high education level and 0 if not)	Undetermined
Household_Size	Number of individuals in the student's original household	Negative

Table 2. Principal component analysis

FACTOR COSTS						
Element	**Factor 1**	**Factor 2**	**Factor 3**	**Factor 4**	**Q_R**	**Cronbach_A**
Item1	0,850				0,761	**0,526**
Item2	0,613				0,572	
Item3	0,731				0,602	
Item4	0,805				0,665	
Item5	0,785				0,661	
Item6	0,864				0,747	
Item1		0,855			0,731	**0,614**
Item2		0,458			0,356	
Item3		0,729			0,544	
Item4		0,368			0,201	
Item5		0,53			0,409	
Item6		0,67			0,509	
Item7		0,76			0,589	
Item8		0,65			0,527	
Item9		0,61			0,404	
Item10		0,67			0,478	
Item1			0,587		0,300	**0,618**
Item2			0,705		0,243	
Item3			0,733		0,375	
Item4			0,599		0,407	
Item5			0,774		0,402	
Item6			0,737		0,343	
Item1				0,534	0,523	**0,545**
Item2				0,676	0,488	
Item3				0,742	0,565	
Item4				0,769	0,613	
Item5				0,672	0,457	
Item6				0,847	0,764	
Item7				0,735	0,551	
Item8				0,705	0,518	
Item9				0,721	0,554	
Item10				0,572	0,468	
KMO_STAT	0,638	0,706	0,713	0,667	0,773[i]	0,752[j]

Note: Factors 1,2,3, and 4 represent the quality of teaching, the condition of education, the social environment of education and the personal condition of the student, respectively. Q_R represents the quality of the representation of each Item. Cronbach_A represents the Alpha Cronbach statistic of the measurement of each factor 1,2,3 and 4. [i] *and*[j] *represent the KMO and Alpha Cronbach statistics calculated for the 32 items, respectively*.

3.3.3. Estimation

In order to assess the determinants of academic performance in Togo, the study used the logistic regression method to examine the existence and magnitude of the effects of independent variables on academic performance in Togo. The dependent variable is qualitative, taking the value 1 when the student has graduated within the regulatory time set by the Togolese authorities and 0 if not. Thus, we adopt the logistic regression model, which allows us to obtain efficient coefficients and reduce the biases related to the fact that the dependent variable is qualitative. The Log-likelihood statistic (LR) and Mcfadden's R^2 (Pseudo R^2) will be used to validate the model.

4. Results and Interpretations

Table 2 below presents the principal component analysis (PCA) results. Analysis of the results in Table 2 indicates that the KMO statistic values for the principal factors are all greater than 0.60. This result indicates that the sample size was measured adequately. The analysis also indicates that the measurement of each principal factor is reliable to the extent that the value of the Cronbach Alpha internal consistency test statistic associated with each principal factor is greater than 0.50. Thus there is adequacy in sampling and internal consistency within the sample in the measurement of the main factors, including quality of education, condition of education, personal condition of the student, and social environment of education.

Table 3 below presents the results of the logistic regression method estimates. The model is statistically validated in that the probability of the Log-Likelihood LR statistic, which is less than 0.05, allows us to reject the Null Hypothesis of model misspecification. In addition, the value of the Pseudo R2, which is greater than 50%, allows us to say that the independent variables (Age, gender, quality of education, condition of education, personal condition of the student, and social environment of education, mother's education, household size) taken into account in the model significantly explain the variation of the dependent variable (Education Performance).

The analysis of Table 3 shows that the coefficient of age is statistically insignificant but positive (Coefficient (A)=0.006, p>0.05). This result shows that age is not a determinant of school performance in Togo. It means that all other things being equal, age does not influence a student's chance to perform well. This result corroborates with that of Sothan (2018), Duff (2004), Rochford et al. (2009), and Ebenuwa-Okoh (2010), who find no significant effect of age on academic performance. This result, however, contrasts with those of Andrietti (2014), Wan and Cheo (2012), Guney (2009), and Kim et al. (2016), whose results support the existence of a significant effect of age on academic performance. However, for the former, especially Wan and Cheo (2012), the young perform better than the older ones, but the opposite is true for the others, especially Guney (2009) and Kim et al. (2016). The analysis in Table 3 also indicates that the coefficient on the independent variable gender is positive and statistically significant at the 1% level (A=0.748; p<0.01). This means that all other things being equal, a man is more likely to perform better than a woman in school education in Togo. Also, when we switch from a woman to a man, the probability of performing well in Togolese education increases by 17.3%. Gender, therefore, has a predictive power on school performance in Togo. This result is consistent with Andrietti (2014), Alfan and Othman (2005), and Alyoussef et al. (2016), who also find that gender positively influences school performance. However, the results of the latter show, unlike the present study, that females and males have an equal chance of performing well.

Like the gender variable, the quality of education in Togo influences school performance in Togo. Indeed, the coefficient associated with the variable quality of education is positive and statistically significant at 1% (A=0.537, p<0.01). This means that all other things being equal, if the quality of education in Togo increases by 1%, the probability that a student will perform well in education increases by 12.4%. This result corroborates that of MuntanerMas et al. (2017), who find that school resources and teaching skills exert significant predictive power on academic performance. It can be explained by establishing teacher training centers for teaching at all levels, including preschool, primary, secondary (1er and 2ème cycle), and higher education. In addition, the Togolese government has established an effective teaching supervision system provided by education inspectors who have been operational for several years.

The analysis of Table 3 also shows that the condition of education (classroom, library, medical center, recreation space, laboratory, etc.) negatively influences education performance in Togo. Indeed, the coefficient associated with the condition of education is negative and statistically significant (A=-0.302; p<0.05). Thus, all other things being equal, the current education condition in Togo offers less chance for a student to perform well. Consequently, when the condition of education in Togo increases by one unit, the probability of a student performing well decreases by 0.07. Furthermore, column 3 of Table 3 shows that the coefficient associated with the square value of the education condition positively and significantly (A= 0.293; p<0.05) influences school performance in Togo. This result attests to the existence of a threshold effect beyond which the education condition has a positive and significant effect on educational performance in Togo. This result aligns with Muntaner-Mas et al. (2017), whose result indicates a significant effect of school resources on education performance. Based on the existence of a threshold effect, the negative impact of the condition of education on school performance in Togo can be explained by the still relatively low level of the condition of education, i.e. the

Table 3. Determinants of educational performance

Variables	(1)		(2)		(3)	
	Educational performance		Educational performance		Educational performance	
	Coefficient	Z-Stat	Marginal effect	Z-Stat	Coefficient	Z-Stat
AGE	0,006	0,48	0,001	0,48	0,008	0,57
SEX	0,748***	5,73	0,173***	6,01	0,751***	5,74
Education quality	0,537***	4,92	0,124***	5,09	0,571***	5,17
Education condition	-0,302***	-2,86	-0,070***	-2,89	-0,47***	-3,78
Condition_education_square					0,293**	2,54
Personal condition	0,096	0,86	0,022	0,86	0,089	0,79
Social_Environment_Educ	0,093	1,35	0,022	1,35	0,084	1,21
Mother education	-0,458**	-2,12	-0,106**	-2,14	-0,437**	-2,02
Household_Size	-0,051*	-1,65	-0,012*	-1,65	0,055*	1,76
Constant	-0,699*	-1,71			-0,106*	-1,68
Pseudo_R2	0,645				0,648	
LR_Stat	84,721				91,320	
Probability (LR_Stat)	0,000				0,000	
N	1366		1366		1366	

*Note: ***, **, * denote significance at 1%, 5% and 10%, respectively*.

existence of a very insufficient number of educational resources (classrooms, libraries, medical centers, educational spaces, etc.), most of which are currently in an advanced state of disrepair and sometimes not operational. The education of the student's mother seems to have significant predictive power on educational performance in Togo. Indeed, an educated mother in Togo offers less chance for a student to perform well, all things being equal. The coefficient associated with the mother's education variable is negative and significant at the 5% level (A=-0.458; p<0.05). If the mother's education level increases by one unit, the student's probability of performing decreases by 0.106 units. This result is also those found by Naylor and Smith (2005), Arias Ortiz and Dehon (2008), and Guimarães and Sampaio (2013), whose results indicate that the mother's education has a role in academic performance. This result clashes slightly with those of Grave (2011) and Zwick (2013), who instead argue for a minor predictive power of parental education on academic performance. One possible explanation for this result is that the more educated the mother is, the more likely she is to have access to salaried employment, which results in less time for the student's education.

The household size seems to be a brake on the education performance in Togo. Indeed, the analysis of Table 3 indicates that the coefficient linked to the household size variable is negative and is also significant as in the previous case but at the 10% level (A=-0.051; p<0.1). All other things being equal, a student from a large household has less chance of performing well. This means that when a student's household size increases by 1%, the student's probability of performing well in education decreases by 1.2%. This result is the same as Sothan (2018), who finds that household size determines academic performance. However, this result is not in line with the results of those who argue that family factors have only a minor role in assessing academic performance. The reason for this seemingly obvious result is that a large household faces increasing needs due to a large number of people in it, which in turn reduces the number of resources needed for education.

The personal condition of the student, as well as the social environment of education, does not seem to exert a significant influence on educational performance. The coefficients associated with the personal education condition are positive but not statistically significant (A=0.096; p>0.05). Similarly, the coefficient for the variable social environment of education is positive but not significant (A=0.093; p>0.05). The student's low income is explained as a positive but not significant influence on the performance of education. This deficit in student income seems to be explained by the precariousness of parents who sometimes cannot mobilize the minimum income to ensure a quality education for the student. The social environment of education, particularly the conduct of research, student organization, and community service seems to be very inadequate in the face of increasing numbers of students.

5. Conclusion

In this study, we assessed the determinants of educational performance in Togo. We used the logistic regression technique to identify the determinants of educational performance in Togo. Our data are occupational tracking survey data. The results suggest that the determinants of educational performance in Togo are

gender, quality of education, educational conditions, mother's education, and household size. Indeed, gender and the quality of education seem to have a negative influence on educational performance in Togo. Thus, all other things being equal, men are more likely to perform better than women in Togo. In the same sense, the quality of education in Togo offers a higher chance for a student to perform well. The two variables, therefore, significantly predict school performance in Togo.

On the other hand, the variables condition of education, mother's education, and household size seem to be an obstacle to educational performance in Togo. Indeed, as things stand, the condition of education (classroom, library, medical center, recreation space, laboratory, etc.) offers less chance for a student to perform well. Moreover, a student's chance to perform well in Togo is reduced when the mother's education and household size are considered. The present study was not able to take into account a certain number of determinants of educational performance that have been found in the literature, such as the level of secondary education, employment, competence in basic subjects, class attendance, study effort, school self-efficacy, and parental involvement, because of the unavailability of data on all of these variables in the survey database used for the study. In the future, the study plans to evaluate the determinants of educational performance in Togo by taking into account variables such as high school level, employment, competence in basic subjects, class attendance, study effort, school self-efficacy, and parental involvement, subject to the availability of data in future research.

Because of the results of this study, the Togolese government is encouraged to continue its efforts to strengthen the capacity of teachers by directing resources towards investments in the construction of teacher training centers. The study recommends that the Togolese government allocate more resources to constructing new classrooms, libraries, medical and social centers and renovating dilapidated educational infrastructure. The study also recommends that the government increase social investments in favor of poor and disadvantaged students who come from households whose size constitutes a real handicap for their performance in their school career. Indeed, the study recommends the implementation of discriminatory and incentive legislation in favor of women employees to avoid the mother's education constitutes a brake on the performance of education in Togo.

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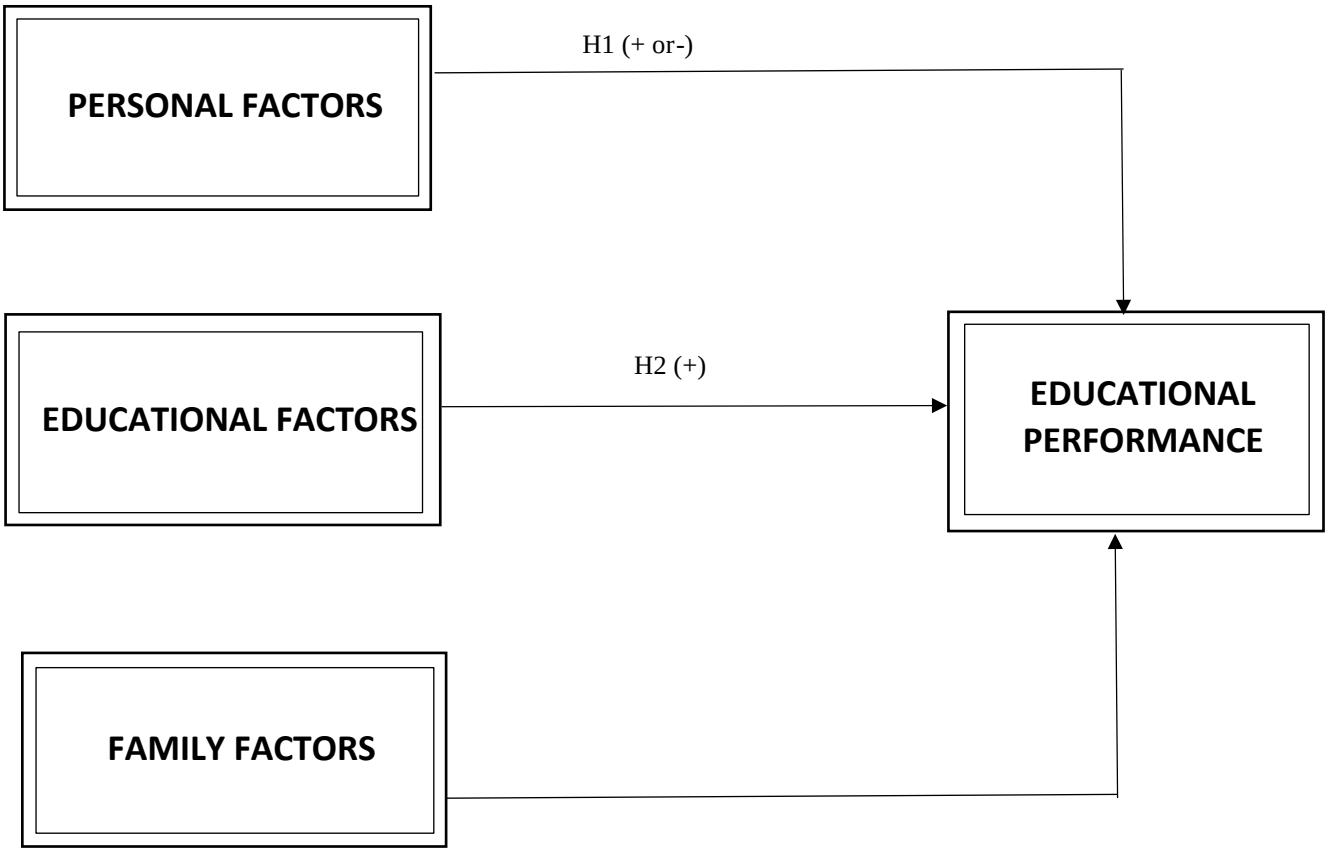
Appendixe

Appendix1



Source: Author

Appendix 2

Factors	Items	
Quality of teaching	Item1	S211a.Please indicate the extent to which emphasis was placed on the following different modes of instruction (2013/2014 graduation):< span style="font-family: cursive; color: purple">Lecture-based courses
	Item2	S211b.Please indicate the extent to which emphasis was placed on the following different modes of instruction (2013/2014 degree):< span style="font-family: cursive; color: purple">Tutorial
	Item3	S211c.Please indicate the extent to which emphasis was placed on the following different modes of instruction (2013/2014 degree):< span style="font-family: cursive; color: purple">Participation in research projects
	Item4	S211d.Please indicate the extent to which emphasis was placed on the following different modes of instruction (2013/2014 degree):< span style="font-family: cursive; color: purple">Internships
	Item5	S211e.Please indicate the extent to which emphasis was placed on the following different modes of instruction (2013/2014 graduation):< span style="font-family: cursive; color: purple">Practical work
	Item6	S211f.Please indicate the extent to which emphasis was placed on the following different modes of instruction (2013/2014 graduation):< span style="font-family: cursive; color: purple">Lectures/Discussions
education conditions	Item7	S212a. How do you rate the quality of the following items in your training? < span style="font-family:cursive;color:purple">Library

	Item8	S212b. How do you rate the quality of the following in your training?< span style="font-family: cursive; color: purple">ICT
	Item9	S212c. How would you rate the quality of the following in your training? < span style="font-family:cursive;color:purple">Instructional Modules Teaching Environment
	Item10	S212d. How do you rate the quality of the following in your training? < span style="font-family:cursive;color:purple">Laboratories
	Item11	S212e. How would you rate the quality of the following in your training:< span style="font-family: cursive; color: purple"> Diversity of topics offered.
	Item12	S212f. How do you rate the quality of the following items in your training? < span style="font-family:cursive;color:purple">Housing
	Item13	S212g. How do you rate the quality of the following in your training? < span style="font-family:cursive;color:purple">Restoration
	Item14	S212h. How do you rate the quality of the following in your training? < span style="font-family:cursive;color:purple">Recreation/leisure spaces
	Item15	S212i. How do you rate the quality of the following in your training?< span style="font-family: cursive; color: purple"> Medical Centers
	Item16	S13a. How would you rate the following: < span style="fontfamily:cursive;color:purple">Classrooms
	Item17	S13b. How would you rate the following: < span style="fontfamily:cursive;color:purple">Stage
the social environment of education	Item18	S13c. How would you rate the following: < span style="fontfamily:cursive;color:purple">Community Services
	Item19	S13d. How would you rate the following: < span style="fontfamily:cursive;color:purple">Research Conduct
	Item20	S13e. How would you rate the following: < span style="fontfamily:cursive;color:purple">Student/Apprentice Organization
	Item21	S13f. How would you rate the following: < span style="fontfamily: cursive; color: purple">After School Curriculum.
	Item22	S13g. How would you rate the following: < span style="fontfamily:cursive;color:purple"> Sport and recreation
Personal condition of the student	Item23	S35. Do you own any of the following durable goods/Post Radio
	Item24	S35. Do you own any of the following durable goods/Positions Television
	Item25	S35. Do you own any of the following durable goods/mobile phones
	Item26	S35. Do you own the following durable goods/refrigerator
	Item27	S35. Do you own the following durable goods/freezers
	Item28	S35. Do you own the following durable goods/Bicycle
	Item29	S35. Do you own the following durable goods/Tricycle
	Item30	S35. Do you own the following durable goods/Motorcycle
	Item31	S35. Do you own the following durable goods/Car
	Item32	S35. Do you own the following durable goods/computer