

## **Investigating the Influence of Family Factors on the Decrease of Student Enrollments in Selected Private Higher Learning Institutions in Rwanda**

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**ABSTRACT:** A number of private universities in Rwanda are facing the decrease of student enrollments and this problem has become a big threat to these institutions. There is a need for these institutions to know factors that are responsible for this problem in order to devise effective strategies to overcome it. The purpose of this study was to investigate the influence of family factors on the decrease of student enrollments in selected private higher learning institutions in Rwanda. The study was carried out in 6 selected private higher learning institutions in Rwanda. The study adopted the correlational research design and used a sample of 382 informants (370 undergraduate students, 6 academic registrars and 6 marketing officers). The data was collected using a questionnaire and was analyzed using descriptive statistics (percentages, frequencies, means and standard deviation) and inferential statistics (simple linear regression). The findings revealed that generally, family factors have a significant influence on decrease of student enrollments in private higher learning in Rwanda. However, it was found that family economic factors and family affective factors have a significant influence on decrease of student enrollments in private higher learning institutions in Rwanda whereas family educational factors have no significant influence on the same dependent variable. The study recommended that private higher learning institutions in Rwanda should offer their costs putting into consideration parents' financial capacities in order to enable them bring their children to university. It was recommended also that the government of Rwanda should offer financial support to private higher learning institutions to build their capacity.

**KEY WORDS:** Investigation, Family factors, Student Enrollments, Higher Learning Institution, private

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### **I. INTRODUCTION**

Due to globalization and the emergence of knowledge-based economy, there has been a worldwide growth and escalating of higher education institutions (Stander, 2017). The study of Roser and Ortiz-Ospina (2014) reported that today the number of student enrollments is declining gradually in some areas of specialization around the globe. Hammed (2018) reported that over 50% of public universities and more than two thirds of private universities were not able to meet their enrollment targets in 2016, and the diminishing student enrollment continue to be a burden for higher education institutions worldwide.

In Rwanda, private higher learning institutions (PHLIs) contribute copiously to the development of the nation by educating its citizen. Amponsah and Onuoha (2013) assert that the major contribution of private universities is that of helping the country in funding and providing education to its citizens. The overall functioning of PHLIs in Rwanda depends significantly on the number of enrolled students. The main reason is that tuition is almost taken as the sole means of generating funds for these institutions (Teixeira & Koryakina, 2011). That means, these institutions should get considerable student enrollments for proper performance and for them to survive.

The education system of Rwanda comprises of four main levels such as pre-primary (kindergarten), primary, secondary and tertiary (MINEDUC, 2013). According to MacGregor (2014), higher education in Rwanda started with the official opening of National University of Rwanda (NUR) in Butare (today known as Huye District) on 3<sup>rd</sup> November 1963. It was established by the government of Rwanda in cooperation with the Congregation of the Dominicans from the Province of Quebec, Canada and the law establishing NUR came into force on 12<sup>th</sup> May 1964. When it started it had 51 students and 16 lecturers only? Tikly et al. (cited in Freedman, Weinstein & Longman, 2006) report that by 1994 the National University of Rwanda had produced only 1,000 graduates only (after 30 years).

Since 1994 up to today Rwanda has been experiencing a rapid increase in the number of higher learning institutions compared to the previous period. By 2015 (after 9 years since 1994) Rwanda had 44 tertiary educational institutions (12 public and 32 private). Conversely, Rwanda had only two higher learning institutions (one private and one public) since 1963 till 1994 (MINEDUC, 2015). The increase in the number of higher learning institutions in Rwanda after 1994 has prompted the demand for higher education of that time. That means, as the number of higher learning institutions increased many people in Rwanda wanted to go to university. Similarly, labor market conditions are among the most important reasons why the demand for higher education grew up in that period (Senyonga, 2013). The higher demand for higher education in Rwanda has stimulated many people from the private sector to invest in higher education. From 1994 till today Rwanda has been experiencing many private higher learning institutions mushrooming in different corners of the country.

The public higher learning institutions in Rwanda of the time were not capable to absorb the big demand for higher education by Rwandese. Therefore, the government of Rwanda has authorized many private higher learning institutions to start their operations to supplement the public ones in absorbing the huge demand for higher education of the time. This is emphasized by Amponsah and Onuoha (2013) who assert that the principal role of private universities is that of being a partner with the government in the financing of education. Nowadays, there are 32 higher learning institutions (30 private, 1 public and the Institute of Legal Practice and Development). Note that, all public higher learning institutions are grouped into one university (University of Rwanda) created in 2013. In 2017, Higher Education Council (HEC) decided to close 5 universities due to failure to comply with the recommendations of the government audit (Rwirahira, 2017).

Reports of the Ministry of Education (from 2014 to 2019 on higher education statistics) revealed a decline in the rate of student enrollments in private higher learning institutions. Since 2014 the rate of student enrollments in PHLIs in Rwanda has started decreasing. A survey conducted by MINEDUC (2018) found that Gross enrolment rate (GER) and the university students decreased between 2015 and 2017. Similarly, the same study testifies a large disparity in terms student enrollments per field of study in Rwandan private universities. Higher rate of student enrollment was found in the fields like Business, Administration and Law, low rate in the fields like Arts and Humanities, Natural Sciences, Mathematics and Statistics while very low rate was found in the fields like agriculture and humanities. The report of MINEDUC (2018) indicates that the enrollment in PHLIs increased from 21948 students in 2006 to 28909 students in 2009 (31.7%); from 31170 students in 2010 to 43717 students in 2013 (40.2%) and from 49254 students in 2014 to 50822 students in 2018 (3.1%).

In fact, one wonders why some programs are teeming with students while others are experiencing shortages of student enrollments. Once this problem persists, the affected institutions will be forced to close their doors and this will magnify the problem of unemployment in Rwanda. Similarly, the problem may result in the shortages of manpower in Rwanda in some domains and this can inhibit successful achievement of the country's projects geared to develop the nation. The closure of some PHLIs will also hinder successful achievement of "Education for All" policy in Rwanda since it will be difficult for some Rwandese to find nearby universities in which they can study and this may make them stop their initiative to further their education. Obviously, there is a need to address this issue.

Due to the above situation we found it crucial to conduct a study that can help in solving the problem. Thus, the purpose of this study was to investigate family factors influencing the decrease of student enrollments in PHLIs in Rwanda. This study aims at answering the following research question: What is the influence of family economic factors on decrease of student enrollments in selected private higher learning institutions in Rwanda? What is the influence of family educational factors on decrease of student enrollments in selected private higher learning institutions in Rwanda? What is the influence of family affective factors on decrease of student enrollments in selected private higher learning institutions in Rwanda?

We believe that this study would provide insights on family factors influencing the decrease of students' enrollments in PHLIs in Rwanda. The findings of the study would serve as a good tool in improving student enrollments in PHLIs.

## **II. LITERATURE REVIEW**

A number of family factors have influence on the decrease of student enrollments in private universities. For the purpose of this study, family economic, educational and affective factors are discussed below.

### **Family economic factors**

A number of studies have shown that financial constraints of a family are hostile for children's schooling and this affects student enrollments in some educational institutions. Jayachandran (2002) and Rolleston (2009) argue that family income was found to be crucial factor influencing children's education around the globe. Although factors leading to drop out of college are many and different, it is believed that family socio-economic status is the primary reason of dropout rates worldwide (Council on Higher Education [CHE], 2013; Chen & Desjarnid, 2010; Letseka & Maile, 2008). However, Kabubo-Mariara and Mwabu (2007)

contended that family economic problems do not significantly affect children's university schooling or enrollment. Keng (2004) also opposed this assertion; he argues that there is no clear confirmation that family financial capacity influences children's education in rural areas of Cambodia.

On similar note, the study of Burney and Irfan (1995) confirmed that family earnings and land possession effects significantly children's education. Sackey (2007), a Ghanaian writer, found that family possessions affect significantly the schooling for the children of both sex. However, the author says that this affects more female children than male ones. The study of Daud, Norwani and Yusof (2018) examined the hardships facing the learners in tertiary institutions (TI) in Malaysia. A total of 480 samples among the undergraduates in HEIs responded to the questionnaires. Descriptive statistics was used in analyzing data. The study found that bigger part of students encountered economic problems due to their shortages of financial means and they found very difficult to afford the living costs. Overall, the study found that family financial constraints influence student dropouts which play a big role in decreasing student enrollments.

Robinson (2017) examined the effect household poverty on university enrollment rates with regard to rural American determinism. The study used advanced structural theory measuring educational factors; familial and socioeconomic factors in Kentucky areas as prospective determinants of university enrollment rate. The study showed that there is significant connection between poverty and living in rural areas. The study also showed that employment rate, poverty rate and single parent families have effect on university student enrollments in Kentucky.

Garwe (2015) examined the influence of student financial problems on college dropout rates. The study used the quantitative approach as well as data from three groups following four-year degree programs from 2009 to 2014 in six public universities. It was found that that graduation rates declined from 86% in the 2009 class to 76% in the 2010 class and 75% in the 2011 class. It was found that the problem of dropout corresponded with cancellation of financial aid since 2013 upwards. As a result, the study concluded that financial problems among the students have increased dropout rates and compromised the promised quality education in Zimbabwean tertiary education system.

Tusiime, Otara, Kaleeba, Kaviira and Tsinda (2017) investigated the correlation between gender discrepancies in university enrollments and graduation rates in Rwandan universities. It was found that there many factor influencing the difference between male female students regarding access to tertiary education. The factors are namely: early marriage, orphan hood, scores in college entrance exams, family responsibility and family financial problems. Hill, Hoffman and Rex (2005) conducted a study on factors impeding university degree achievement. The study identified three main reasons justifying why some people decide not to embark on university education. These are household lack of financial capacity, lack of academic capability to learn at university and lack of the beliefs that the Degree will generate additional incomes in future.

Iddrisu (2014) carried out a study to measure the influence of poverty, household structure and child work on children's education in Ghana as per gender and age variables. Using the data from the GLSS 4 and 5, the study found that poverty had influence on child's education and it was higher for males than for females and for younger children than older ones.

### **Family educational factors**

Parents' educational level has been found to effect their children's education. Kean (cited in Anonymous, 2017) argued that parents with very high education level actively push their kids to build up higher expectations in their lives. He further said that learners do better in their learning as long as their parents actively participate in their children's learning. Globally and Hargreaves (cited in Anonymous, 2017) argue that in Germany students whose parents caring on their education are likely to have fewer problems, and better learning outcomes and are more prone to finish secondary school than those whose parents do not actively participate in their education. In the same view, parental educational level affects children's higher education as well and this is viewed in different perspectives. Educated parents are aware of the importance of studying university more than uneducated ones. For this reason, they can be interested in sending their children to university than those who are not educated and this can affect student enrollments in private higher learning. However, some studies contend the idea that uneducated parents do not push their children to go to university. For instance, the study of Ceja (2004) confirmed that uneducated parents are not considered as it should be due to the misconception that they are not supportive in the course of directing their children towards struggling to achieve a higher Degree.

Pufall (2016) examined the connection between parents' education level and their children's education during the time of Zimbabwean financial crisis in 2000s. The study found that during this time, children with parents whose higher level of education went on having higher performance to the extent that this may have helped the government to uphold the increasing education trends. Indeed, this study has shown that low level of parents' education can hinder student enrollments in higher education. The study of Nelson (2009) found that students whose parents do not have university degrees often face more barriers in their university education

compared to those whose parents have studied university. On the same note, the former students encounter more difficulties in the course of their university education, participation in academic work, making connections within their institutions, academic and social adjustment, and degree achievement. The former students in most cases may be vulnerable to individual doubts concerning their educational and motivational attributes. On the contrary, the author argues that parents' whose higher education degrees are probably more conscious of the continuous benefits of holding a university degree, and therefore pass this information to their children. Overall, the study concluded that parents' higher level of education influences the degree attainment by their children. That means, parental education level influence university student enrollments.

Menheere and Hooze (2010) examined the effect of parents' involvement in children's education with reference to parents' illiteracy. The study found that parents' involvement significantly affects their children's academic performance, motivation and welfare at school. The study also found that when uneducated parents wish to participate in the education of their children, it becomes difficult for them. These findings simply mean that parents' illiteracy may hinder the enrollments of their children at university. Kyui (2010) assessed the effect of parents' educational background and family incomes on admission into university education. The study found that children whose parents have university degrees have more chance of being admitted into higher education institutions than those whose parents have secondary level of education. These findings imply that low level of education influence decrease of student enrollments in higher learning institutions.

### **Family affective factors**

Family involvement strongly influences children's educational outcomes in addition to many other related variables. Furthermore, parental negative attitudes towards tertiary education can hinder children's schooling at university (Samal, 2012). Based on literature review, school choice relies on factors like family variables, school variables, parental attitude and satisfaction (Hsieh, 2000). On the same note, some parents who did not have access to formal education may not find interest in education therefore may develop negative attitude towards schooling their children. Consequently, their children may develop similar beliefs that education is not important for them or their own families (idem). According to GSS (cited in Kwame, 2014), there is a connection between household economic power and the likelihood of not accessing education. He further noted that children from poor families are nearly four times as prone not to access education compared to those from rich families. Wartman and Savage (2008) examined influence of parental involvement on university education. The findings revealed that educational institutions improve parental interest in many ways. It was also found that failure of schools to render good services to parents, like effective communication about the progress of their children and behavioral problems, etc., are prone to be faced with problems in student enrollments.

Bordhan (2014) carried out a study to examine the effect of parents' attitudes towards education on their children's schooling in India. 145 parents with one or more children with schooling age participated in the study. The findings revealed that parents' negative attitude towards higher education has detrimental effect on student enrollments in tertiary institutions. The study recommended that higher learning institutions should manager to improve their relations with parents in order to enhance their interest in enrolling their children at university. Family instability may affect student enrollments in higher leaning institutions. This because home conflicts affect all the activities to be accomplished by the family members including academic and economic related ones. As Ajira et al. (cited in Anonymous, 2017) argue that family status affects its members because parents are the primary agents of socialization for people during their lifetime. Family instability can affect children's leaning in PHLIs in a number of ways. First, family conflict affects financial capacity of the family which can inhibit children's opportunities to study university. Second, family instability affects the children's interest to further their education. This is because conflicting parents do not care on their children and therefore do not encourage them to go to school. According to Kelly (2012), duet to separation and divorce, kids are twice as prone to experience emotional, social, behavioral and academic problems in comparison to those from families whose both parents have not separated or divorced yet even though this might not be the same in all families. In fact, when students are not motivated, they feel reluctant of going to school and their parents remain indifferent just because they are in conflict.

Family instability sometimes leads to death of parents or divorces. In this situation, children become orphans and in most cases they do not go to school. Matsolo, Ningpuanyeh and Susuman (2016) analyzed tertiary institutions' enrollments and drop out status in South Africa. The findings revealed that being an orphan is one of the key factors affecting the student enrollment rates. In other words, higher rate of orphan hood influences decrease of student enrollment in higher learning institutions. Similarly, children from divorced parents sometimes do not continue studies because they are sometimes shocked and they become hopeless such that they are discouraged to continue their studies. Divorced parents are financially badly off and therefore can't afford school fees for their children appropriately. Mooney, Oliver and Smith (2009) found that in comparison with both parents' families, one parent families are likely to experience financial problems. On the same note,

the author says that financial problems raise the probability of other factors related to negative results; these are like lack or poor house to live in, health problems, poor diet and fewer related materials. Fomby (2013) conducted a study to find out whether and how family conflict in early or later childhood affects university enrollment and completion rate. The findings showed that early family conflicts have a continuing negative effect on educational attainment and university student enrollments. Wu, Schimmele, Hou and Ouellet (2010) analyzed the correlation between family structure and university enrollment and completion rates. The study used longitudinal data (2000-2010) from a sample taken at a national level. The study found that children from stable families have greater chances than those from unstable ones, without forgetting cohabiting-parent families. The results of this study simply mean that parental instability reduces the chance of children to enroll at university which again can affect university enrollments in general.

### **III. MATERIALS AND METHODS**

#### **Research design**

This study adopted the quantitative research design to find out family factors influencing the decrease of student enrollments in PHLIs. According to Aliaga and Gunderson (2005), quantitative research design consists of elucidating a phenomenon by gathering data in the form of numbers and examining them by statistical analysis. The same author says that quantitative research design can be employed when one has narrative data as well. In this case, narrative (non-numerical) data is converted into numerical one by means of especially Likert scales. As Tanibas (2014) puts it, when narrative data turns out to be numerical, the technique is also deemed to be quantitative in nature. In fact, the researcher collected data based on people's opinions which were translated into numerical data in order to generalize and draw conclusions regarding institutional factors influencing the decrease of student enrollments in PHLIs.

#### **Participants**

This study was conducted January-February, 2020. It was carried out in 6 Private Higher learning institutions including Adventist University of Central Africa (AUCA), Christian University of Rwanda (CHUR), Institut Supérieur de Ruhengeri (INES-RUHENGERI), KIM University, Protestant Institute of Arts and Social Sciences (PIASS) and University of Tourism Technology and Business Studies (UTB).

The choice of these universities was made bearing in mind that this is a good number to represent all 29 PHLIs operating in Rwanda (HEC, 2019). Similarly, the choice was made as per the assumption that at least 30 percent of the entire population is appropriate for the sample (Borg and Gall, 2003). Given the preferred scope of the study, only those which were 5 years old by the end of 2018-2019 academic year were involved in the study. The 6 PHLIs were selected using systematic sampling technique whereby the institutions were firstly sorted out alphabetically, and then the interval of four numbers was used to select the ones to be involved in the study. The target population of this study comprised of 13914 subjects (13902 undergraduate students, 6 academic registrars and 6 marketing officers) from the 6 selected PHLIs in Rwanda. The study used a sample of 382 subjects (370 undergraduate students, 6 academic registrars and 6 marketing officers). The student sample was chosen using the sampling table as elaborated by Krejcie and Morgan (1970). In addition, stratified (probability) sampling technique was used in selecting the undergraduate students. By this technique the researcher divides (stratifies) the population into sub-groups having the same characteristic, and then from each group a particular sample is randomly chosen (Creswell, 2012). In fact, the researcher divided the undergraduate students into groups (strata) according to the years of study and within each group; the researcher selected randomly some undergraduate students for inclusion in the sample. For the academic registrars and marketing officers, the researcher used census technique which consists of taking the whole population as a sample because it is too small (Creswell, 2012).

#### **Research Instruments**

This study used structured questionnaire to collect primary data from undergraduate students in the 6 sampled PHLIs. The study also used documentary review to collect secondary data (from journal articles, books, theses, etc.). The questionnaire contained close-ended questions only in the form of likert scales ( $1=Strongly Agree$ ,  $2=Agree$ ,  $3=Neutral$ ,  $4=Disagree$ ,  $5=Strongly Disagree$ ). The respondents had to tick the appropriate box with regard to their understanding.

#### **Data Collection Procedures**

Before collecting data, the researcher sought the authorization to collect research data from the vice-chancellors of the 6 PHLIs of the involved sample. Before collecting the data, the researcher sought the informed consent from the respondents using an appropriate form. Before collecting the data, a pilot study was conducted to ensure the validity and reliability of the instruments and this was made using Cronbach's alphas analysis. The pilot study was done by having 15 undergraduate students to fill the questionnaire and giving their

feedback on it. This exercise was conducted in one private higher learning institution that was randomly selected. However, the selected institution for pilot study was not involved again in collecting the real data. The data was extracted from the questionnaires and entered into SPSS 20. The Cronbach's alphas scored were extracted as shown in the table below.

**Table 1: Reliability Results**

<b>Variables</b>	<b>Number of items</b>	<b>Cronbach's Alpha</b>	<b>Comments</b>
ECF	15	0.915	Accepted
EDF	15	0.904	Accepted
AFF	15	0.928	Accepted

**Note:**ECF=Economic factors, EDF= Educational factors, AFF= Affective factors

The Cronbach's alphas were above 90%. This indicated that most items in this questionnaire had high squared multiple correlations an indication that the questionnaire passes reliability test. Cronbach's alpha above 0.7 is regarded as satisfactory (George & Mallery, 2003). This meant that the tool was adequate in measuring how family economic factors, family educational and family affective factors influence the decrease of student enrollment in some selected private higher learning in Rwanda. The data was analyzed using SPSS version 20, descriptive statistics (percentages and frequencies) and inferential statistics (simple linear regression).

#### IV. RESULTS

This study aims at answering the following research question: What is the influence of family economic factors on decrease of student enrollments in selected private higher learning institutions in Rwanda? What is the influence of family educational factors on decrease of student enrollments in selected private higher learning institutions in Rwanda? What is the influence of family affective factors on decrease of student enrollments in selected private higher learning institutions in Rwanda?

#### **Influence of family economic factor on the decrease of student enrollment in private higher learning institutions**

**Table2: Model Summary for family economic factors**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.718 <sup>a</sup>	.516	.456	.53498

a. Predictors: (Constant), Family economic factors

Results in table2 showed that 51.6% of the variation in the dependent variable (decrease of student enrollments) can be explained by family economic factors and the remaining percentages can be attributed to other factors which are not contained in the model.

**Table3: Analysis of variance of family economic factors and decrease of student enrollments**

#### ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.442	1	2.442	8.532	.019 <sup>a</sup>
	Residual	2.290	8	.286		
	Total	4.731	9			

a. Predictors: (Constant), Family economic factors

b. Dependent Variable: Decrease of student enrollments

The analysis of variance in table 3 revealed that family economic factors had a significant relationship (F= 8.532, p value <0.05) with the decrease of student enrollment in private higher learning institutions in Rwanda.

**Table 4: Regression coefficient on family economic factors and decrease of student enrollments**

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.799	.909		.878	.405
	Family economic factors	.759	.260	.718	2.921	.019

a. Dependent Variable: Decrease of student enrollments

The results in table 4 revealed a significant influence of family economic factors ( $\beta=0.759$  and p value  $<0.05$ ) on the decrease of student enrollment in private higher learning institutions in Rwanda. The results were dependent on the following model.

$$\hat{Y} = \alpha + \beta X + \epsilon$$

$$Y = 0.799 + .759X + \epsilon$$

Where Y= Decrease of student enrollments, X=family effective factors and  $\epsilon$ = error term

**Influence of family educational factor on the decrease of student enrollment in private higher learning institutions**

**Table5: Model Summary for family educational factors**  
**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.269 <sup>a</sup>	.073	-.043	.74061

a. Predictors: (Constant), Family educational factors

Results in table 5 showed that 7.3% of the variation in the dependent variable (decrease of student enrollments) can be explained by family educational factors and the remaining percentages can be attributed to other factors which are not contained in the model.

**Table 6: Analysis of variance of family educational factors and decrease of student enrollments**

<b>ANOVA<sup>b</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.343	1	.343	.626	.452 <sup>a</sup>
	Residual	4.388	8	.549		
	Total	4.731	9			

a. Predictors: (Constant), Family educational factors

b. Dependent Variable: Decrease of student enrollments

The analysis of variance in table 6 revealed that family educational factors had no significant relationship ( $F=0.626$ , p value  $>0.05$ ) with the decrease of student enrollment in private higher learning institutions in Rwanda.

**Table 7: Regression coefficient on family educational factors and decrease of student enrollments**

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.332	1.381		1.688	.130
	Family educational factors	.440	.557	.269	.791	.452

a. Dependent Variable: Decrease of student enrollments

The results in table7 revealed no significant influence of family educational factors ( $\beta=0.440$  and p value  $>0.05$ ) on the decrease of student enrollment in private higher learning institutions in Rwanda. The results were dependent on the following model.

$$\hat{Y} = \alpha + \beta x + \epsilon$$

$$Y=2.332 + .440X + \epsilon$$

Where Y= Decrease of student enrollments, X=family educational factors and  $\epsilon$ = error term

**Influence of family affective factors on the decrease of student enrollment in private higher learning institutions**

**Table8: Model Summary for family affective factors**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.690 <sup>a</sup>	.476	.411	.55663

a. Predictors: (Constant), Family affectivefactors

Results in table 8 showed that 47.6% of the variation in the dependent variable (decrease of student enrollments) can be explained by family affective factors and the remaining percentages can be attributed to other factors which are not contained in the model.

**Table9: Analysis of variance of family affective factors and decrease of student enrollments**

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.253	1	2.253	7.270	.027 <sup>a</sup>
	Residual	2.479	8	.310		
	Total	4.731	9			

a. Predictors: (Constant), Family affectivefactors

b. Dependent Variable: Decrease of student enrollments

The analysis of variance in table9 revealed that family affective factors had a significant relationship ( $F=7.270$ , p value  $<0.05$ ) with the decrease of student enrollment in private higher learning institutions in Rwanda.

**Table 10:Regression coefficient on family affective factors and decrease of student enrollments**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.297	.803		1.616	.145
	Family affectivefactors	.722	.268	.690	2.696	.027

a. Dependent Variable: Decrease of student enrollments

The results in table 10 revealed no significant influence of family affective factors ( $\beta=0.722$  and p value  $<0.05$ ) on the decrease of student enrollment in private higher learning institutions in Rwanda. The results were dependent on the following model.

$$\hat{Y} = \alpha + \beta x + \epsilon$$

$$Y=1.297 + .722X + \epsilon$$

Where Y= Decrease of student enrollments, X=family educational factors and  $\epsilon$ = error term

**Ordinary Least Squares Regression Analysis for family factors and decrease of student enrollment**



**Table 11: Model Summary for family factors and decrease of student enrollment**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.908 <sup>a</sup>	.825	.738	.37141

a. Predictors: (Constant), Family affective factors, Family economic factors, Family educational factors

The results on primary data indicated that the predictor variables were able to explain much of the movement of the dependent variable as shown in Table 11. The R square was 82.5%. Based on the OLS regression model, the study tested the hypothesis that the predictor variables collectively have effect on the dependent variable.

**Table 12: Analysis of variance of family factors and decrease of student enrollments**

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.904	3	1.301	9.433	.011 <sup>a</sup>
	Residual	.828	6	.138		
	Total	4.731	9			

a. Predictors: (Constant), Factor2, Factor1, Factor3

b. Dependent Variable: Factor4

This test is directed by F statistic in Table 12 which indicated that its *p* value of 0.11 is less than  $\alpha$  of 5% for each variable's coefficient hence statistically significant different from zero. This meant that at 5% significance level, the study rejected the null hypothesis and inferred that the independent variables in focus were jointly statistically significant in predicting the value of changes in decrease of student enrollments in PHLIs in Rwanda. Based on results above, the study concluded that the independent variables significantly influence the dependent variable.

**Table 13: Regression coefficient on family factors and decrease of student enrollments**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.660	.768		.859	.423
	Factor2	-.732	.368	-.448	-1.992	.094
	Factor1	.817	.236	.774	3.458	.013
	Factor3	.591	.200	.565	2.957	.025

a. Dependent Variable: Factor 4

Results in Table 13 revealed negative and no significant relationship between factor 2 and factor 4 ( $\beta = -0.732$ , *p* value  $>0.05$ ). This implies that a unit of change in factor 2 decreases factor 4 by -0.732 units while holding constant factor 1 and factor 3. Secondly, there was a positive and significant relationship between factor 1 and factor 4 ( $\beta = 0.817$ , *p* value  $<0.05$ ). This implies that a unit of change in factor 1 increases factor 4 by 0.817 units while holding constant factor 2 and factor 3. Thirdly, there was a positive and significant relationship between factor 3 and factor 4 ( $\beta = 0.591$ , *p* value  $<0.05$ ). This implies that a unit of change in factor 3 increases factor 4 by 0.591 units while holding factor 1 and factor 2.

$$Y = 0.660 + 0.591X_3 - 0.732X_2 + 0.817X_1$$

Where:

Y refers to factor 4 as dependent variable (decrease of student enrollments)

$X_1$  refers to factor 1 (Family economic factors)

$X_2$  refers to factor 2 (Family educational factors)

$X_3$  refers to factor 3 (Affective educational factors)

## V. DISCUSSION

As earlier mentioned, this study aimed at investigating the influence of family factors on the decrease of student enrollments in private higher learning institutions in Rwanda by answering the following research question: What is the influence of family economic factors on decrease of student enrollments in some private higher learning institutions in Rwanda? What is the influence of family educational factors on decrease of student enrollments in some private higher learning institutions in Rwanda? What is the influence of family affective factors on decrease of student enrollments in some private higher learning institutions in Rwanda? The following are the findings for each research question.

### **The influence of family economic factors on decrease of student enrollments in some private higher learning institutions in Rwanda**

With regard to research question number one, the study revealed that family economic factors have a positive significant influence on the decrease of student enrollments in private higher learning institutions in Rwanda. In order to achieve this, 10 items or options have been used and the respondents ticked the appropriate box according to their choices. Furthermore, it was found that the most influencing economic factors are namely poverty in the family (mean=4.66, SD=0.55) and failure of family business (mean= 4.33, SD=0.70). These findings are explained by the fact that money is the first condition to fulfill in order to go to university. That means, whenever, parents are not capable of paying tuition fees for their children they can't venture sending them to university. These findings contradict those of Kabubo-Mariara and Mwabu (2007) who concluded that family economic problems do not significantly affect children's university schooling or enrollment. Furthermore, the National Institute of Statistics of Rwanda (2019) indicates that the poverty rate in Rwanda is still high (38.2%) although there has been a continued decline. That means, there still many families in Rwanda which live in poverty and this is among the most important factors influencing the decrease of student enrollment in private universities in Rwanda.

### **The influence of family educational factors on decrease of student enrollments in some private higher learning institutions in Rwanda**

Concerning research question number two, it was found that family educational factor have no significant influence on the decrease of student enrollments in private higher learning institutions in Rwanda. This was found by means of respondents' opinions on 10 proposed options/items by which they had to tick the appropriate box according to their understanding. These findings contradict those of Pufall (2016) who found that parental low level of education hinders student enrollments at university.

### **The influence of family affective factors on decrease of student enrollments in some private higher learning institutions in Rwanda**

For the research question number three, it was found that family affective factors have a significant influence on the decrease of student enrollments in private higher learning in Rwanda. The study showed that the most influential affective factors are namely: parents' loss of interest in taking their children to university (mean=3.34, SD=0.81), children's loss of interest in studying university (mean=3.69, SD=0.88), parents' negative expectations to words university degree (mean=3.57, SD=0.96) and children' negative expectations to words university degree (mean=3.65, SD=0.93). These findings are explained by the fact that many graduates who are completing university studies in Rwanda are not getting jobs easily and majority of them spend many years without jobs. This is what is discouraging many S6 leavers to go to university and decide to look for other alternatives that can help them to earn life. As a result, many parents are reluctant to pay for their children at university and this is influencing the decrease of students in private higher learning institutions in Rwanda. These findings are similar to those of Bordhan (2014) whose study found that parents' loss of interest in schooling their children at university influences the decrease of student enrollments. Overall, the study found that family factors (economic, educational and affective) as a whole have a significant influence on the decrease of student enrollments in Private higher learning in Rwanda.

## VI. CONCLUSION AND RECOMMENDATIONS

Considering all the above findings, the study concluded that family economic factors have a significant influence on the decrease of student enrollments in Private higher learning in Rwanda and that family affective factors have a significant influence on the decrease of student enrollments in Private higher learning in Rwanda. It was also concluded that family educational factors have no significant influence on the decrease of student enrollments in Private higher learning in Rwanda. Finally, the study concluded that family factors in general have a significant influence on the decrease of student enrollments in Private higher learning in Rwanda. Based on the findings, the study recommended that:

- 1) The managers of private higher learning institutions in Rwanda should be aware that many parents in Rwanda have little capacity to pay for their children at university. Therefore, these institutions should offer their costsputting into consideration parents' financial capacities.

- 2) Parents should be interested in sending their children to university because this is the best way of preparing their lives. The parents and students should not be discouraged by the scarcity of jobs at Rwandan labor market. Instead, they should know that education is not only for getting jobs but also for creating them. For that reason, students should always be encouraged to go to university focusing on job creation not on job seeking. This will boost the students' expectations towards the university degrees.
- 3) University graduates in Rwanda should know that employment opportunities are available for those who are competitive. For that reason, they should graduate with enough skills and knowledge in their respective fields of studies. This will help them to be competitive in the labor market or to be able to create their own jobs rather than spending years and years applying for jobs.
- 4) Given the fact that private higher learning institutions in Rwanda play a pivotal role in supporting the education system of the country, the government should provide private universities with financial support for their capacity building. This will help the institutions to offer affordable costs which will enable more parents to take their children to university.

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