



**INFLUENCE OF FINANCIAL SUSTAINABILITY STRATEGIES ON PERFORMANCE OF UNIVERSITIES IN RWANDA. A CASE OF UNIVERSITY OF KIGALI MUSANZE CAMPUS (2017-2020)**

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**ABSTRACT**

*The aim of this study was to analyse the influence of financial sustainability strategies on performance of Universities in Rwanda. Under four specific objectives; to analyse whether resource allocation influences performance of Uok Musanze Campus; to investigate the influence of students' recruitment strategies on the performance of University of Kigali Musanze Campus; to determine whether diversification strategy influences the performance of Uok Musanze Campus; to establish a moderating influence of education policy and experience of employees on performance of Uok Musanze Campus. This study adopted a descriptive research design, quantitative approaches were used. The study used universal sampling technique as 65 respondents were used as total population and sample size of research. The primary and secondary data were collected using questionnaire and documentary as data collection instruments. After the data collected were organized, edited and coded, quantitative data were entered into SPSS 20. The significance of the findings was tested using ANOVA. The p-value was used to determine whether the null hypothesis should be accepted or rejected. If the p-value is less than 0.05 then alternative hypothesis is accepted while null hypothesis is rejected. The results of the findings indicated that the regression coefficient (R) = 0.974, 0.863, 0.934, 0.901 showed that there was a strong positive relationship between resource allocation, students' recruitments strategies, diversification strategy and education policy and experience of employees respectively and performance of university. Based on the findings, the study concluded that financial sustainability strategies have a significant influence on performance of university and also the study recommended that private universities of Rwanda to prioritize income generating strategies in relation to education and also University of Kigali to prioritize resource allocation to industrial visit and research to ensure qualified students fit to the markets.*

**Key words:** Financial Sustainability, Strategies, Performance

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## INTRODUCTION

Globally, financial sustainability is described as the ability to cover annual budgets without constraints. It indicates that the income generated by an organization is greater than the operational costs (Pollinger, Outhwaite & Cordero-Guzman, 2007). In the context of higher education institutions, financial sustainability means that these institutions generate higher revenues than the provision of educational services. In other words, the income generated by these universities is more than what is required to meet the needs of staff payroll, wages of employees as well as the purchase of education materials and services. (Pollinger et al. 2007).

Financial sustainability is regarded as one of the basic challenges in European universities. As such, institutions with strong and sound financial structures and stable incomes are the ones that can fulfill their missions and respond to challenges brought about by dynamic environment. Thus, financial sustainability aims at ensuring that a learning institution is able to generate adequate income to enable the institution to discharge its operations efficiently and invest in its academic and research without over relying on external sources of funding such as the government. (Estermann & Pruvot, 2011).

It is noted that higher education in England has made a significant contribution to economic prosperity of the country and it is imperative that it not only survives but also succeeds (Higher Education Commission, 2014). However, the shoot up cost of providing higher education attached with declining sources of funding pose a challenge to the institutions of higher learning in the United States (Lapovsky, 2015).

African higher education institutions play a critical role in sustaining human development on the continent. This is evidenced on the numerous studies focusing on the contributions of higher education to economic growth and long-term benefits to the society. The USAID report further declares that there is a question on how to educate a rapidly growing number of students focusing on

relevance and quality and financial sustainability in Africa. In view of this, there are crucial suggestions that have been put forward. One of the suggestions captures strategies to increase finance and internal efficiency in the education sector. These strategies involve reducing or moderating expenditures, greater economy in minimizing utilization of resources and mobilizing additional resources to achieve financial sustainability (USAID, 2014).

There are several ways of reducing public costs for tertiary education. These include limiting enrolment in public institutions and channeling excess demand to private institutions; using low-cost education services delivery such as distance learning programs, among others. Financial sustainability can be enhanced by reducing costs within institutions through merging and consolidating institutions in order to realize economies of scale. The institutions of higher learning are faced with a challenge of securing financial sustainability both in the short term and in the long term as demand for higher education continues to increase evidenced by the arrival of students in institutions of higher learning (Grobler, 2013).

For instance, the author notes that the growth of students in South Africa learning institutions has overreached the available resources. Attached with declining funding, universities choice to increasing students' fees in a bargain to enhance financial sustainability. In the case of Tanzania, it is observed that at both national and institutional levels, there are certain conditions that facilitate or stop ability of universities to make a sustained contribution to economic development (Bailey, Cloete & Pillay, 2011).

According to Rebecca (2020), Rwanda's universities continue to face serious obstacles like an increase in part-time teaching at multiple institutions; some staff members also conduct consultancies with international organizations to supplement their largely inadequate salaries that affect the quality of education at universities and research output of graduate students due to insufficiency finance. Also, students of higher educational institution in

Rwanda, students appear to be graduating without many of the skills required by the labor market.

### **Objectives of the Study**

The general objective of the study was to analyze the influence of financial sustainability strategies on performance of Universities in Rwanda.

The specific objectives of the study were the following:

- To analyze whether resource allocation influences the performance of University of Kigali Musanze Campus.
- To investigate the influence of students' recruitment strategies on the performance of University of Kigali Musanze Campus.
- To determine whether diversification strategy influences the performance of University of Kigali Musanze Campus.
- To establish a moderating influence of education policy and experience of employees on performance of University of Kigali Musanze Campus.

### **Problem Statement**

All over the world, ensuring the financial sustainability has become the primary objective of all higher education institutions, both of those working as a private or public institution. Usually, problems of financial sustainability in educational institutions arise as a result of general financial crises or problems of the institution itself that make it difficult to cover the administrative costs and development activities that aim to achieving their goals (Estermann, 2011).

The sustaining to the financial sustainability still one of the main challenges for higher education institutions in developing countries since the lack of it will lead to deteriorating its ability to implement the activities required to fulfill its goals. Moreover, developed countries also consider the financial sustainability as a crucial part of university sustainability, and represent a threat to the ability of higher education institutions to carry out their duties in an efficient manner and respond to the changes in the surrounding environment. (Estermann, 2015).

Omondi and Muturi ( 2013), carry out research in this area and conclude that universities continue to suffer from various financial problems including but not limited to debt accumulation and inability to promptly pay suppliers of goods and services; inability to make timely purchases of project inputs; delay in payment of salaries and implementation of Collective Bargaining agreements; limited number of academic field courses and academic conferences; limitation in purchase of books; and reduction of research grants, among others. In view of the above, is not clear the extent to which financial sustainability strategies can be linked to the performance of universities.

According to Bertrand and Edwin (2020), the Rwanda Ministry of Education permanently closed four universities included INATEK, KIM University, Christian University of Rwanda, and the Indangaburezi College of Education over financial irregularities and their failure to provide quality education. No research carried out on this issue in Rwanda that is why there was a great need to explore the influence of financial sustainability strategies on performance of Universities in Rwanda.

## **LITERATURE REVIEW**

### **Theoretical literature review**

#### **New models for measuring financial sustainability model**

An Organization for Economic Co-Operation and Development (OECD) (2008) review of tertiary education policy was conducted from 2004 to 2008 in collaboration with 24 countries around the world. A number of major global trends were identified as follows: the expansion of tertiary education, provider diversification, an increase in the combination of students (e.g., socioeconomic background, ethnicity, previous education), differential funding arrangements, an intensity of focus on accountability and performance, emergence of new governance structures and globalization. Very similar themes are reflected in government higher education reforms within

Australia. The Commonwealth Government's response to the 'Bradley Review' (Department of Education, Employment and Workplace Relations [DEEWR], 2008), Transforming Australia's Higher Education System (DEEWR, 2009) listed a number of analogous key reforms, including the maintenance of a growing but sustainable higher education sector.

### **Dynamic Capabilities Theory**

Wheeler (2002) defines dynamic capabilities as the ability to integrate, build, and reconfigure internal and external competencies to address rapidly-changing environments. The role of dynamic capabilities is to impact on the firm's existing resource base and transforms it in such a way that a new package of resources is created so that the firm can sustain or enhance its competitive advantage (Ambrosini & Bowman, 2009).

### **The Contingency Theory**

The contingency theory, developed by Joan Woodward in the 1950s, is a class of behavioral theory which claims that there is no best way to organize an organization, to lead a company or to make decisions. Instead, the optimal course of action is contingent upon the internal and external situations. Several contingency approaches were developed concurrently in the late 1960s. The authors of these theories argued that Marx Weber's bureaucracy and Fredrick Taylor's scientific management theories had failed as they neglected environmental influences and that there is not one best way to manage enterprises. These influences shape the individual behavior in a certain situation while managing organizations (Ngugi, 2012).

### **Concepts of financial sustainability strategies**

Sazonov, Ekaterina, Irina and Elena (2015) evaluated financial sustainability of higher education institutions in Russia. The authors noted that financial sustainability in a university is achieved where the institution produces sufficient income to enable it to invest in future academic and research activities. The authors underscored the essence of an education institution to constantly monitor

market situation of education services and also evaluate its own position in the market in order to ensure financial sustainability especially in changing market conditions such as intensifying competition brought about by education institutions. According to Kavanagh (2007) financial sustainability calls for long term planning which aids in creating and maintaining financial sustainability. Afriyie (2015) while looking into sustainable factors of higher education institutions in different parts of the world noted that institutions of higher learning can achieve financial sustainability by increasing or maintaining operations through internally-generated income and investment portfolio funds.

### **Resource allocation**

Resource allocation is the process of assigning and managing assets in a manner that supports an organization's strategic goals. Resource allocation refers to distribution of funds or financial resources to various division heads within a firm (Shuqair & Abdel-Aziz, 2015).

### **Diversification strategy**

A diversification strategy is the strategy that an organization adopts for the development of its business. This strategy involves widening the opportunity of the organization across different products and market sectors. Diversification strategy is a form of growth strategy which helps the organizational business to grow.

Diversification is a major strategy that enhances the growth of the institution, since it leads to more probability of having more students if there is variety of programs to choose from.

Oketch states that the government should encourage private universities to provide new models and approaches to the delivery of higher education, ensuring cost effectiveness and an experimental approach (Oketch 2003).

### **Students' recruitment Strategies**

It is important for institutions to develop, review and diversify programs but unless they create general awareness then students may not know the programs being offered and hence poor enrolment. Bellon therefore advises that to improve the

visibility of the higher learning institutions, there is a need to do strategic marketing and branding efforts that require qualified personnel who so often do not exist in these institutions (Bellon, 2017).

### **Education policy**

Rwanda National education policy (2005) stated that education is a fundamental human right and an essential tool to ensure that all Rwandese citizens women and men, girls and boys realize their full potential. The development of human resources is one of the principal factors in achieving sustainable economic and social development. Education and training have been considered as a critical essential to achieve development and poverty reduction in Rwanda. A major work is based in education and the education sector. Therefore, Rwanda's Ministry of Education and its education sector's policy helps to achieve it.

### **Experience of employees**

According to Foot (2008), the environments a company creates, and the experiences they provide, need to facilitate employees' work and enable them to keep pace in a highly-competitive, rapidly-changing global economy. But critically, every employee population is different. What works at one company won't necessarily work at another. What matters most is that employees feel each environment offers something intrinsically valuable to their work needs. Employee Experience concerns how employees think about the company, how they interact with peers and leaders, and how they understand and navigate their work environment.

### **Concepts of performance in universities**

Performance in university is a subjective evaluation of how well a product or service functions that may lead a customer to show satisfaction and recommend the product or, on the contrary, to express disappointment and give the product a negative review. Educational institutions are continuously assessed by the public based on the performance. These results are, in turn, linked to the prestige, employability of its graduates and relationships with other entities, which favor both

the institution itself and its students and graduates. (Del-Castillo-Feito, et al. 2020)

Performance of university is the public's perception regarding its capability to produce quality goods, which is linked to a reduction in stakeholders' uncertainty when choosing products and services from a supplier; and perception regarding the relevance of the organization measured through the status of third parties that support the organization, in other words, recognition in its field (Tam, M, 2001).

### **Reputation**

Reputation can be understood as the set of characteristics linked to personality and the perception or image of the organization. An organization not only wants to have a positive reputation, but it also expects the public to recognize certain distinctive characteristics in it, which will help its position with respect to others. The construction of the desired perception arises from the variables that can easily be manipulated by the organization, which will allow outlining an identity of its own and clearly demarcated from other organizations. Corporate reputation can be studied from the perspective of the consumer or end-user; from the perception of the external or internal public; from a sociological perspective, meeting the expectations and norms in an institutional context; as an intangible asset that can produce economic value or as a strategy that can be managed from within the organization. (Alessandri, et al. 2006).

### **Quality of service**

Service quality is defined as an overall evaluation of the goodness or badness of a product or service. To improve quality, service providers have to identify the key determinants of service quality. Therefore, provision of better-quality services is the basic strategic tool used by academic institutions (Baltaru, 2019). In the context of private universities, positive perceptions of the quality of services are a fundamental element in the evaluation of performance. The positive perceptions of the quality of private universities are related to the

employability rate of its students, specialized skills training, high-quality instruction, and good value for the money. Other research indicates positive quality perceptions of a private university are associated with helping student's find employment after graduation, high-quality lectures, and gives a lot for tuition. (Khoi et al. 2019).

### **Innovation**

Innovation is the creation, development and implementation of a new product, process or service, with the aim of improving efficiency, effectiveness or competitive advantage. Education and innovation make up an essential link in the knowledge economy. From an educational perspective, innovation means introducing improvements and updates based on the set of elements related to the teaching-learning process, subject to assessing its electiveness and relevance. Educational innovation is therefore related to improving the design and development of the curriculum, improving teaching strategies and the curriculum components, such as educational materials and approaches and training, selection and professional development of teachers. (Cachón-Rodríguez et Al. 2020).

### **Empirical review**

#### **Financial Sustainability**

It is noted that higher education sector in the United Kingdom is very successful but it is imperative for the sector to invest for future and ensure transparency in the use of money in order to enhance long-term financial sustainability (Wakeham, 2010). The author together with a task group conducted research in universities and other higher education institutions in the UK to determine their financial sustainability and efficiency. It was noted that the income which higher education institutions utilized for research activities was not enough to cover the costs of undertaking the research activities. As such the authors contended that the governing body of higher education institutions should ensure institution-wide strategies for financial sustainability that are aligned with the chosen mission.

### **Resource Allocation and performance of universities**

According to Gansemer-Topf and Schuh (2004) resource allocation is one of the critical issues that ought to be considered in an organization. In their study on organizational factors that contribute to retention and graduation in institutions of higher learning in United States, the authors established that how the institutions allocated their resources directly influenced retention of students and graduation rates. The authors therefore noted that expenditures and financial strategies were important for student engagement in the institutions. An earlier study by Pan, Rudo, Schneider and Smith-Hansen (2003) found that resource allocation in schools in United States influenced higher performance. Specifically, it was noted that higher allocation to core expenditure, staffing and lower allocation to general and administrative activities in the surveyed schools resulted to higher student and overall school performance. The study concluded that resource allocation strategies that align to school improvement activities aid in student performance.

### **Student recruitment strategies and performance of universities**

The private universities will need to market their programs more aggressively using appropriate, creative and effective marketing and promotion strategies to maintain viability. This suggestion is not as easy as stated in the sense that if the institutions are to develop many programs, then extra finances will be needed to pay for the resource persons in addition to paying for the approval of the programs as required by the Commission for University Education. Moreover, marketing has become very competitive and an expensive exercise for the emerging private universities to afford and hence the need to expand the funding strategies. (Brown 2005).

### **Diversification strategies and performance of universities**

Diversification is a major strategy that enhances the growth of the institution, since it leads to more

probability of having more students if there are variety of programs to choose from. This is supported by Bellon who states, "Program management ensures whether an institution stays open or closes". As the university diversifies and introduces new programs, it is important to take note of the advice of Murapa of reviewing the status of existing programs in light of their cost and benefits of growth which may lead to reduction in size of the departments to redirect resources to departments experiencing growth (Brown, 2005).

Oketch states that the government should encourage private universities to provide new models and approaches to the delivery of higher education, ensuring cost effectiveness and an experimental approach (Oketch 2003). This is supported by Lejeune who recommends the maximization of distance learning education as a powerful tool which cannot be ignored by any tertiary institution that plans to grow and develop. This is therefore the way forward for education as it enhances availability, affordability and accessibility of quality education to students scattered all over the world and hence save the universities from expanding their infrastructure (Brown 2005).

#### **Financial sustainability and reputation**

In 1987 the World Commission on Environment and Development (WCED) of the United Nations (UN) established that sustainability refers to meeting the needs of the present without acting the capability of future generations to meet their needs. (Cornuel, 2005). Later, the UN adopted a multidimensional vision that considers economic development, social development and environmental protection as three interdependent dimensions that lead to sustainable development. Economic sustainability involves a business contribution to achieving the viability of the economic system as a whole; social sustainability is aimed at the population's aspirations regarding issues on equity, inclusion and health; finally, caring for the environment is linked to the application of forms of production with minimum impact on ecosystems. (Aboagye, 2017).

The BSR Globe Scan 11th Annual State of

Sustainable Business Survey 2019 reveals that reputation is one of the most important causes of sustainability sorts in companies. Sustainable practices in schools reveal to be the most proper approach to accomplish quality education and, consequently, reputation (Bratianu, 2015). In the context of higher education, an increasing number of universities are incorporating sustainable development programs. Universities are not only responsible for carrying out their teaching and research work, but they also have the duty to identify the needs of internal and external actors, adapt research to solve important problems, share useful knowledge and be responsible for their decisions from the social, environmental and economic point of view. Salvinia et al. arm that sustainability is a key success factor in improving the quality, image and positioning of universities in international rankings, aspects related to reputation (Brown, 2016).

#### **Financial sustainability and quality of education**

Consumers do not purchase goods or services but purchase options that provide services and Create value. As consumers perceive that the service purchased generates more benefits, the greater the probability that the consumer will repeat the experience. In turn, increased demand for a product or service tends to increase its reputation among consumers (Tam,2001). Previously, we pointed out that great challenges are faced by the education sector, which have led universities to make strategic decisions to deal with them. One of these challenges is to maintain student loyalty based on the quality of the service, which can be measured based on processes and performance.

#### **Financial sustainability and innovation in education**

Due to high competition within the education sector, innovation is the differentiating element for universities that seek to excel both in educational services and offer, as well as in research. The reputation of an educational institution can, therefore, be expected to improve as its innovation projects do. In this regard, the perception of the



quality of research activity was a strategic factor for the university to attract potential clients (Cachón, 2020). On the other hand, the findings of other studies confirm that the attraction factor which is perceived as the most important by students is the academic and research quality of the institution (Lappeman, 2018)

**Relationship between financial sustainability strategies and performance**

Financial sustainability is a goal that all institutions strive to achieve and it is largely used as a measure of good performance. Theoretically, this financial sustainability enables a firm to cover recurrent or overhead costs and to prioritize activities so as to accomplish missions, without undergoing interminable negotiations with donors who may or may not agree with one’s vision or cost percentages (Chalk, 2000).

Many organizations approach supporters that will permit them to set up expectation fund or income-generating occasions that produce a profit margin above market conditions. The ingenuity and creativity of non-profit organizations has led to the expansion of many innovative mechanisms. (Hemming, 2000). This ability to dream and to persuade others to realize these dreams are part of this sector’s principal strengths. Nonetheless, the percentage of organizations that achieve financial sustainability remains very low. This is due to the absence of creativity or commitment, but rather to the point that many organizations continue to have a donor-dependent vision. If a trust fund is obtained, it is usually through an outside source (Artis, 2000).

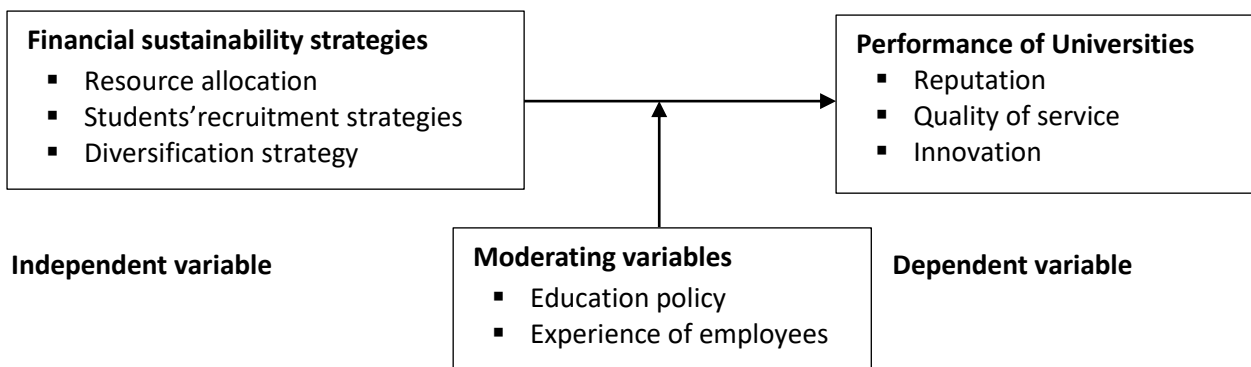
It is important to consider the capacity for access to capital or preferential terms as a competitive advantage enjoyed by a non-profit organization, attaining financial sustainability through a single source or mechanism is a stroke of luck. On the beginning of the 21<sup>st</sup> century, faced with an increasingly competitive market, a globalized economy, and a context in which change is a constant rather than a variable, one must employ more sophisticated methods to attain financial sustainability. (Marcellino, 2000).

**Summary of the literature reviewed**

This chapter has covered literature reviewed on resource allocation, students’ recruitment strategies, diversification strategy that leads to the performance of universities. The chapter combined the literature on financial sustainability strategies and performance that improve the performance of universities worldwide, in African, regionally and particularly at Rwanda. The researcher concentrated on dimensions of independent variable; resource allocation, students’ recruitment strategies, diversification strategy that leads to the performance of universities of Rwanda. Dependent variable had the following dimensions: reputation, quality of service and innovation whereas intervening variables include education policy and experience of employees as summarized by the conceptual framework.

**Conceptual frame work**

The research was intended to analyze the influence of independent on depend variables and intermediate variables and were developed from the analysis of the results from literature review.



**Figure 1: Conceptual Framework**

Based on the conceptual framework model above: the independent variable was financial sustainable strategies which included resource allocation, student recruitment strategies, and diversification strategies then dependent variable was Performance of universities which included reputation, quality of service, and innovation lastly the intervening variables include education policy and experience of employees.

### METHODOLOGY

This study adopted a descriptive survey research design. The population under this research was 65 Uok 'employees and students' representatives. For the purpose of this study universal sampling techniques was used. Both primary and secondary

data was obtained for this study. The primary data were collected using questionnaire and secondary data were obtained using documentary technique. SPSS and MS-Excel was used for data analysis. Instruments were initially piloted to only 10 respondents chosen randomly to examine if the questions were simple, compatible to the topic, and unconfiding.

### FINDINGS

Results and discussion of findings.

Reliability test

The table below was extracted using SPSS 20. It shows Cronbch'Alpha scores.

**Table 1. Reliability test**

Financial sustainability strategies	Cranach's Alpha	No. of Items
Resource allocation	.920	10
Students 'recruitments strategies	.944	10
Diversification strategy	.915	10
Education policies and experience of employees	.936	10

Table 1 showed that the cronabach's alpha is above 90%, it is acceptable when it is above 0.7, the higher is the better so, the results above showed there is a higher degree of acceptance.

### Descriptive statistics and discussion

This section demonstrated the respondents' rate and study findings alongside discussions of the data output. The findings are in form of descriptive statistics (Mean and Standard deviation). The data collected was on a five-point Likert scale of 1-5 where strongly disagree=1; Disagree= 2; Neutral=3; Agree=4; and strongly agree= 5.

#### Resource allocation

The first objective of the study was to analyze

whether resource allocation influences the performance of university of Kigali Musanze Campus. To achieve this objective, the respondents were asked to indicate their level of agreement on the statement related to resource allocation and performance of university of Kigali Musanze Campus. Responses were summarized using mean ( $\bar{x}$ ) and standard deviations ( $\delta$ ).

**Table 2: Resource allocation**

Resource allocation	N	Mean	Std. Deviation
Uok allocates funds to acquire teaching and learning materials	65	4.3846	.80414
In Uok all stakeholders are involved in resource allocation	65	4.1077	.68746
In uok a required amount goes to salaries and wages	65	4.4000	.58095
In Uok a required amount goes to industrial visit	65	3.3231	.61511
In Uok some funds are allocated to research	65	4.1692	.65118
in Uok funds are allocated to research	65	4.1692	.51748
Uok suggests how allocated financial resources are utilized	65	4.1385	.39039
Resource allocation is one of the most determinants of financial sustainability in UoK	65	4.1846	.52715
How Uok allocates its resources directly influence retention and graduation rate	65	3.9846	.48387
Resource allocation in Uok focused only on main activities	65	3.9385	.46358
Resource allocation in Uok influences higher performance	65	4.9077	.38418
Valid N (listwise)	65		
<b>Overall</b>		4.155245	0.555045

The findings from table 2 ascertained that the respondents agreed that Uok allocated funds to acquire teaching and learning materials as indicated by ( $\bar{x}$  =4.3846,  $\delta$ =0.80414), It was further concurred in allocating resources a required amount goes to salaries and wages as indicated by ( $\bar{x}$  =4.4000,  $\delta$ =0.58095), all stakeholders are involved in resource allocation as indicated by ( $\bar{x}$  =4.1077,  $\delta$ =0.68746), a required amount goes to industrial visit as indicated by ( $\bar{x}$  =3.3231 $\delta$ =0.61511), funds are allocated to research ( $\bar{x}$  =4.1692,  $\delta$ =.65118), Uok suggests how allocated financial resources are utilized as indicated by ( $\bar{x}$  =4.1385,  $\delta$ =.39039), Resource allocation is one of the most determinants of financial sustainability as indicated by ( $\bar{x}$  =4.1846,  $\delta$ =0.52715), How Uok allocates its resources directly influence retention and graduation rate as indicated by ( $\bar{x}$  =3.9846,  $\delta$ =0.48387), Resource allocation in Uok focused only on main activities as indicated by ( $\bar{x}$  =3.9385,

$\delta$ =.46358), Resource allocation in Uok influences higher performance rate as indicated by ( $\bar{x}$  =4.9077,  $\delta$ =.38418). This implied that Uok prudently allocated resources for their general welfare to get higher performance. Also, resource allocation is the process of assigning and managing assets in a manner that supports an organization's strategic goals and the main goal of universities is to have good performance. (Shuqair et al., 2015).

#### **Students' recruitments 'strategies**

The second objective of the study was to investigate whether students' recruitment strategies influence the performance of university. To achieve this objective, the respondents were asked to indicate their level of agreement on the statement related to the students' recruitments strategies and performance of university of Kigali Musanze Campus. Responses was summarized using mean ( $\bar{x}$ ) and standard deviations ( $\delta$ ).

**Table 3: Students' recruitment strategies**

Students' recruitment strategies	N	Mean	Std. Deviation
Uok markets their programs using appropriate strategies	65	4.5385	.58835
Uok has qualified personnel in charge of marketing	65	4.2462	.43412
Uok uses promotion strategies in recruiting students	65	4.4308	.49904
Uok customer care plays a big role in recruitment strategies	65	4.3846	.49029
Uok uses social media platforms in recruiting students	65	4.2615	.44289
Uok uses print media in recruiting students	65	4.2154	.41429
In Uok all staffs are involved in recruiting students	65	4.1538	.36361
Uok motivate students who bring new students	65	4.2308	.42460
In recruiting students Uok uses strategies that let the society be away of their programs	65	4.0769	.26854
Uok uses traditional methods and partnership in recruiting students	65	4.0308	.17404
Valid N (listwise)	65		
<b>Overall</b>		4.25693	0.409977

The findings from table 3 indicated that the respondents agreed with statement that Uok uses promotion strategies in recruiting students as indicated by ( $\bar{x}$  =4.4308,  $\delta$ =0.49904),Uok markets their programs using appropriate strategies as indicated by ( $\bar{x}$  =4.5385,  $\delta$ =.58835),Uok has qualified personnel in charge of marketing as indicated by ( $\bar{x}$  =4.2462,  $\delta$ =.43412),Uok customer care plays a big role in recruitment strategies as indicated by ( $\bar{x}$  =4.3846,  $\delta$ =.49029),Uok uses social media platforms in recruiting students as indicated by ( $\bar{x}$  =4.2615,  $\delta$ =0.44289),Uok uses print media in recruiting student as indicated by ( $\bar{x}$  =4.2154,  $\delta$ =.41429), In Uok all staffs are involved in recruiting student as indicated by ( $\bar{x}$  =4.1538,  $\delta$ =0.36361), Uok motivate students who bring new students as indicated by ( $\bar{x}$  =4.2308,  $\delta$ =.42460), In recruiting students Uok uses strategies that let the society be away of their programs as indicated by ( $\bar{x}$  =4.0769,  $\delta$ =.26854),Uok uses traditional methods and

partnership in recruiting students as indicated by ( $\bar{x}$  =4.0308,  $\delta$ =.17404). This was supported by Brown (2005) confirmed the private universities market their programs more aggressively using appropriate, creative and effective marketing and promotion strategies to maintain viability by attracting more students and hence high students' enrolments.

#### **Diversification strategy**

The third objective of the study was to evaluate whether diversification strategy influences the performance of university of Kigali Musanze Campus. To achieve this objective, the respondents were asked to indicate their level of agreement on the statement related to diversification strategy and performance of university of Kigali Musanze Campus. Responses were summarized using mean ( $\bar{x}$ ) and standard deviations ( $\delta$ ).

**Table 4: Diversification strategy**

Diversification strategy	N	Mean	Std. Deviation
Uok increases programs aimed at meeting market demand	65	4.000	.00000
Uok has many programs that attract students	65	4.4000	.74582
Diversification strategy leads to higher performance in Uok	65	4.1385	.60922
diversification is a major that enhance the growth of Uok	65	4.3538	.67154
Diversification strategy helps in managing programs in Uok.	65	4.2923	.67830
E-learning is one strategy of diversification in Uok.	65	4.2154	.54464
Uok opens other branches where required as a diversification strategy.	65	4.2000	.44017
Uok diversifies by providing unique learning needs and mode to their students	65	4.0615	.55557
New programs in Uok attract many students	65	4.1538	.59242
Diversification strategies enhance the financial sustainability of Uok.	65	3.9846	.48387
Valid N (listwise)	65		
<b>Overall</b>		4.17999	0.532155

The findings from table 4 indicated that the respondents agreed with statement that Uok increases programs aimed at meeting market demand as indicated by ( $\bar{x}$  =4.000,  $\delta$ =.00000), Uok has many programs that attract students as indicated by ( $\bar{x}$  =4.4000,  $\delta$ =.74582), Diversification strategy leads to higher performance in Uok as indicated by ( $\bar{x}$  =4.1385,  $\delta$ =.60922), diversification is a major that enhance the growth of Uok as indicated by ( $\bar{x}$  =4.3538,  $\delta$ =.67154), Diversification strategy helps in managing programs in Uok as indicated by ( $\bar{x}$  =4.2923,  $\delta$ =.67830), E-learning is one strategy of diversification in Uok as indicated by ( $\bar{x}$  =4.2154,  $\delta$ =.54464), Uok opens other branches where required as a diversification strategy ( $\bar{x}$  =4.2000,  $\delta$ =.44017), Uok diversifies by providing unique learning needs and mode to their students as indicated by ( $\bar{x}$  =4.0615,  $\delta$ =.55557), New programs in Uok attract many students as indicated by ( $\bar{x}$  =4.1538,  $\delta$ =.59242), Diversification strategy enhances the financial sustainability of Uok as indicated by ( $\bar{x}$  =3.9846,  $\delta$ =.48387. This was supported by Bellon (2017), who stated that Diversification strategy was seen as a way of enhancing financial sustainability because with many programs, students will keep on coming, and as they pay their fees, the university is able to raise income since school fees provides the greatest income to the institution. “Program management

ensures whether an institution stays open or closes” Program development, review and diversification is a major strategy that enhances the growth of the institution, since it leads to more probability of having more students if there are variety of programs to choose from. As the university diversifies and introduces new programs, it is important to review the status of existing programs in light of their cost and benefits of growth which may lead to reduction in size of the departments to redirect resources to departments experiencing growth. (Brown,2005).

#### **Education policies and experience of employees**

The fourth objective of this study was to establish the moderating influence of education policy and experience of employees on performance of university of Kigali Musanze Campus. The findings were in form of descriptive statistics (Mean and Standard deviation). The data collected was on a five-point Likert scale of 1-5 where strongly disagree=1; Disagree= 2; Neutral=3; Agree=4; and strongly agree=5. To achieve this objective, the respondents were asked to indicate their level of agreement on the statement related to education policies and procedures and experience of employees. Responses were summarized using mean ( $\bar{x}$ ) and standard deviations ( $\delta$ ).

**Table 5: Education policy and experience of employees**

Education policies and experience of employees	N	Mean	Std. Deviation
Uok has qualified and experienced personnel	65	4.4769	.58916
In Uok all service functions are carried out at highest professional standards.	65	4.20000	.506211
Experienced employees in Uok are opportunities to have high performance.	65	4.4000	.58095
Employees experience in Uok increased happiness that leads to an increased performance	65	4.3538	.57093
Experienced employees make Uok to be competitive on the market.	65	4.2308	.52349
Uok sets rules and regulations based on education policies and procedures.	65	4.1846	.49662
Education policies help Uok to create standards of quality for learning and safety.	65	4.1231	.45096
Education policies help Uok to teach students efficiently, fairly and safety as per the regulatory norms.	65	4.2000	.50621
Having well-developed policies and rules in Uok can lead to the financial sustainability and performance.	65	4.0462	.37210
Education policies help Uok to meet all academic obligations.	65	4.0308	.17404
Valid N (listwise)	65		
<b>Overall</b>		4.22462	0.477067

The findings from table 5 indicated that the respondents agreed with statement that Uok has qualified and experienced personnel as indicated by ( $\bar{x} = 4.4769, \delta = .58916$ ), In Uok all service functions are carried out at highest professional standards ( $\bar{x} = 4.20000, \delta = .506211$ ), Experienced employees in Uok are opportunities to have high performance as indicated by ( $\bar{x} = 4.4000, \delta = .58095$ ), Employees experience in Uok increased happiness that leads to an increased performance as indicated by ( $\bar{x} = 4.3538, \delta = .57093$ ), Experienced employees make Uok to be competitive on the market as indicated by ( $\bar{x} = 4.2308, \delta = .52349$ ) Uok sets rules and regulations based on education policies and procedures as indicated by ( $\bar{x} = 4.1846, \delta = .49662$ ), Education policy helps Uok to create standards of quality for learning and safety as indicated by ( $\bar{x} = 4.1231, \delta = .45096$ ), Education policies help Uok to teach students efficiently, fairly and safety as per

the regulatory norms as indicated by ( $\bar{x} = 4.2000, \delta = .50621$ ), Having well-developed policy and rules in Uok can lead to the financial sustainability and performance as indicated by ( $\bar{x} = 4.0462, \delta = .37210$ ), Education policy helps Uok to meet all academic obligations ( $\bar{x} = 4.0308, \delta = .17404$ ). This was supported by Jarvalt and Randma-Liiv (2010) who recognized that strategic human resource management (HRM) is crucial in both public and private organizations in order to maintain personnel for long period of time.

#### **Performance of university of Kigali Musanze Campus**

The respondents were asked to indicate their level of agreement on the statement related to performance of university of Kigali Musanze Campus as dependent variable.

**Table 6: Performance of university of Kigali Musanze Campus**

Performance of Uok Musanze Campus	N	Mean	Std. Deviation
Reputation is an intangible asset in Uok.	65	3.9538	.27561
In Uok reputation creates long-term competitive advantage	65	4.4000	.58095
A reputation in Uok perceives excellence that influences the future of students towards the society.	65	4.2923	.67830
Reputation in Uok is its capability to provide quality of education to reduce uncertainty to stakeholders and become recognized in its field.	65	4.2462	.66216
Uok provide quality service to maintain student loyalty.	65	4.2308	.52349
Quality of service offered in Uok affect greatly their performance	65	4.2000	.44017
Uok has higher quality teaching and administrative services.	65	4.1385	.39039
Uok uses improved and updates set of elements in teaching and learning process.	65	4.0615	.29984
Innovation in Uok is a differentiating element that seeks to excel in education service and research to meet the need of the society.	65	3.9538	.41196
In Uok there is a strong relationship between financial sustainability and performance.	65	3.9538	.27561
Valid N (listwise)	65		
<b>Overall</b>		4.14307	0.453848

The findings from table 6 indicated that the respondents agreed with statement that in Uok reputation is an intangible asset as indicated by ( $\bar{x}$  =3.9538,  $\delta$ = .27561), In Uok reputation creates long-term competitive advantage ( $\bar{x}$  =4.40000,  $\delta$ =.58095), A reputation in Uok perceives excellence that influences the future of students towards the society as indicated by ( $\bar{x}$  =4.2923,  $\delta$ =.67830), Reputation in Uok is its capability to provide quality of education to reduce uncertainty to stakeholders and become recognized in its field as indicated by ( $\bar{x}$  =4.2462,  $\delta$ =.66216), Uok provide quality service to maintain student loyalty as indicated by ( $\bar{x}$  =4.2308,  $\delta$ =.52349) Quality of service offered in Uok affect greatly their performance as indicated by ( $\bar{x}$  =4.2000,  $\delta$ =.44017),Uok has higher quality teaching and administrative services as indicated by ( $\bar{x}$  =4.1385,  $\delta$ =.39039), Uok uses improved and updates set of elements in teaching and learning process as indicated by( $\bar{x}$  =4.0615,  $\delta$ =.29984), Innovation in Uok is a differentiating element that seeks to excel in education service and research to

meet the need of the society as indicated by ( $\bar{x}$  =3.9538,  $\delta$ =.41196), In Uok there is a strong relationship between financial sustainability strategies and performance as indicated by ( $\bar{x}$  =3.9538,  $\delta$ =.27561). This was supported by Del-Castillo-Feito, C.; Blanco-González, A and.; González-Vázquez, E. (2019) argued that reputation is one of the most important factors of the prevalence of any organization and that there is a positive relationship between the organization’s sustainable practices and its reputation.

#### **Inferential statistics and discussion**

Under this study inferential statistics were used to indicate the relationship of independent variable on dependent variable using correlation analysis and influence using regression analysis.

#### **Influence of financial sustainability strategies on performance of universities in Rwanda**

Under this study inferential statistics were used to indicate the relationship and effect of independent variable on dependent variable like regression analysis and correlation analysis

**Table 7: Correlation between financial sustainability strategies on performance of University of Kigali Musanze Campus**

		Resource allocation	Students recruitments strategies	Diversification strategy	Education policy and experience of employees	Performance of universities
Resources allocation	Pearson Correlation Sig. (2-tailed)	1	.801**	.946**	.821**	.974**
	N	65	65	65	65	65
Student recruitment strategies	Pearson Correlation Sig. (2-tailed)	.801**	1	.826**	.841**	.863**
	N	65	65	65	65	65
Diversification strategy	Pearson Correlation Sig. (2-tailed)	.946**	.826**	1	.790**	.934**
	N	65	65	65	65	65
Education policy and experience of employees	Pearson Correlation Sig. (2-tailed)	.821**	.841**	.790**	1	.901**
	N	65	65	65	65	65
Performance of universities	Pearson Correlation Sig. (2-tailed)	.974**	.863**	.934**	.901**	1
	N	65	65	65	65	65

From the Partial correlation coefficient (two-tailed) table 7 showed a significant relationship between dimensions of financial sustainability strategies indicated by resource allocation, students 'recruitments strategies, diversification strategy and education policy and experience of employees against performance of universities measured by reputation, quality services and innovation. The results showed that all the dimensions have positive and significant influence between financial sustainability strategies and performance of university of Kigali Musanze Campus. Specifically, resource allocation, students' recruitments 'strategies, diversification strategy and education

policies and experience of employees related positively with performance of universities as indicated by ( $r = 1$ ,  $p < 0.05$ ;  $r = .801^{**}$ ,  $p < 0.05$ ;  $r = .946^{**}$ ,  $p < 0.05$ ; and  $r = .821^{**}$ ,  $p < 0.05$ ,  $r = .974^{**}$ ,  $p < 0.05$ ) respectively.

These implied that there is a strong positive relationship between financial sustainability strategies and performance of university of Kigali Musanze Campus. This was supported by Ann Njoki, (2016), In his research he found that there is a positive and statistically significant relationship between financial sustainability strategies and performance of higher learning institutions. This



meant that resource allocation, students' recruitment strategies, diversification strategy, and education policy and experience of employees were essential in ensuring performance in higher education institutions.

### Influence of resource allocation and performance of university of Kigali Musanze Campus

The first objective of the study was to analyse whether resource allocation influences performance of Uok Musanze Campus.

**Table 8: Model summary between resource allocation and performance of university of Kigali Musanze Campus**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.974 <sup>a</sup>	.949	.948	.76181

a. Predictors: (Constant), Resource allocation

b. Dependent variable: Performance of universities

The result in the table 8 showed that the regression coefficient (R) = 0.974 showed a strong relationship between resource allocation and performance of University of Kigali Musanze Campus. Considering R<sup>2</sup> in statistic indicate the variation in the dependent variable due to independent variable. From the findings of table 8, the value of R<sup>2</sup>=0.949 indicated that resource allocation explained 94.9% of the influence of performance of university. The results indicated that the coefficient of determination, adjusted R<sup>2</sup>= 0.948 obtained from the model summary, coefficient of determination was used to explain whether the model is good predictor. From

the results of the analysis, the findings showed that resource allocation contributed to 94.8% of the variation in performance of Uok Musanze Campus which showed that the model is a good prediction. This was supported by Pan et al. (2003) they found that resource allocation in schools in United States influenced higher performance. Specifically, it was noted that higher allocation to core expenditure, staffing and lower allocation to general and administrative activities in the surveyed schools resulted to higher student and overall school performance

**Table 9: ANOVA Between resource allocation and performance of Uok Musanze Campus**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	681.376	1	681.376	1174.059	.000 <sup>b</sup>
	Residual	36.563	63	.580		
	Total	717.938	64			

a. Dependent Variable: Performance of universities

b. Predictors: (Constant), Resource allocation

The results of the findings from the table 9 indicated that the ANOVA statistics show that the significance (p = .000<sup>b</sup>, F=1174.059) was less than the recommended critical significance at 0.05. Therefore, the regression model was statistically significant in predicting how resource allocation influences performance of university of Kigali Musanze Campus. Since the p-value was less than 0.05 (P-value= .000<sup>b</sup>) obtained, then alternative hypothesis was accepted while null hypothesis was

rejected. Meant there was significant influence between resource allocation and performance of university of Kigali Musanze Campus. This was supported by Gansemer et al. (2004), resource allocation is one of the critical issues that ought to be considered in an organization. They established that how the institutions allocated their resources directly influence its performance like retention of students and graduation rates.

**Table 10: Estimated coefficient model between resource allocation and performance of Uok Musanze Campus**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	12.247	.857		14.292	.000
	Resource allocation	.638	.019	.974	34.265	.000

a. Dependent Variable: Performance of universities

b. Predictors: (Constant), Resource allocation

From the table 10, the findings of regression coefficients revealed that there was a significant positive relationship between resource allocation and performance of university of Kigali Musanze Campus. Where the regression coefficient of resource allocation was 0.638, ( $\beta=0.974$ ,  $p\text{-value}=0.000$ ). This implied that resource allocation had strong positive relationship on performance of university of Kigali Musanze Campus. Under this study, the following regression model was obtained:  $Y=12.247 +0.638 X_1$  where  $Y$  = performance of university of Kigali Musanze Campus,  $X_1$  = Resource allocation. This implied that holding other factors (resource allocation) remain constant to zero, performance of university of Kigali would be achieved at a unit of 12.247. It was also indicated

that a unit increase in resource allocation would cause an increase in performance of university of Kigali by a factor of 0.638. This was supported by Louw and Venter (2013), who confirmed that resource allocation influences an organization's current situation and future projections thus its performance.

**Influence of students 'recruitments strategies on performance of university of Kigali Musanze Campus**

The second objective of the study was to investigate whether students 'recruitments strategies influence performance of university of Kigali Musanze Campus.

**Table 11: Model Summary between student's recruitments' strategies and performance of University of Kigali Musanze Campus**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.863 <sup>a</sup>	.745	.741	1.70406

a. Predictors: (Constant), Students recruitments' strategies

b. Dependent: Performance of universities

The result in the table 11 showed that the regression coefficient (R) = 0.863 showed a strong relationship between students' recruitments' strategies and performance of University of Kigali Musanze Campus. Considering  $R^2$  in statistic indicate the variation in the dependent variable due to independent variable. From the findings of table 11, the value of  $R^2=0.745$  indicated that Students recruitments' strategies explained 74.5% of the influence of performance of university of Kigali

Musanze Campus. The results indicated that the coefficient of determination, adjusted  $R^2= 0.741$  obtained from the model summary, coefficient of determination was used to explain whether the model is good predictor. From the results of the analysis, the findings showed that students recruitments' strategies contributed to 74.1% of the variation in performance of university of Kigali which shows that the model is a good prediction. This was supported by (Robbins and Coulter 2009),

the strategies are the means by which the mission of the organization is put into practice, and objectives achieved by attracting and satisfying its customers. These strategies must also be aligned

with the mission, goals, beliefs, and values that characterize the organization as well as with the various sub-systems that make up the organization (Harris & Werner, 2002).

**Table 12: ANOVA between Students recruitments' strategies and performance of university of Kigali Musanze Campus**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	534.999	1	534.999	184.241	.000 <sup>b</sup>
	Residual	182.940	63	2.904		
	Total	717.938	64			

- a. Dependent Variable: performance of universities
- b. Predictors: (Constant), Students recruitments' strategies

The results of the findings from the table 12 indicated that the ANOVA statistics showed that the significance ( $p = .000^b$ ,  $F=184.241$ ) was less than the recommended critical significance at 0.05. Therefore, the regression model was statistically significant in predicting how Students recruitments' strategies influence performance of university of Kigali Musanze Campus. Since the p-value was less than 0.05 ( $P\text{-value} = .000^b$ ) obtained, then alternative hypothesis was accepted while null hypothesis was rejected. Meant there was significant influence between Students

recruitments' strategies and performance of university of Kigali Musanze Campus. This was supported by Bellon (2017) advises that to improve the performance of higher institutions, there is a need to do strategic marketing and branding efforts that require qualified personnel who so often do not exist in these institutions. The private universities will need to market their programs more aggressively using appropriate, creative and effective marketing and promotion strategies to maintain viability (Brown, 2005).

**Table 13: Estimated coefficient model between Students recruitments' strategies and Performance of University of Kigali Musanze Campus**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.160	2.754		1.511	.136
	Students' recruitments' strategies	.876	.065	.863	13.574	.000

- a. Dependent Variable: Performance of universities
- b. Predictors: Students' recruitment strategies

From the table 13 the results of the findings of regression coefficients showed that there was a positive and significant influence between students' recruitments' strategies and Performance of university of Kigali Musanze Campus where

regression coefficient of students 'recruitment strategies is 0.876, ( $\beta = 0.863$ ,  $p \text{ value} = 0.05$ ). This implied that students 'recruitment strategies had strong positive relationship on performance of university of Kigali Musanze Campus. The results of

regression model were established as follows;  $Y = 4.160 + 0.876X_1$  where  $Y = \text{Performance of university}$   $X_1 = \text{Students recruitments' strategies}$ . This implied that holding other factors (Students recruitments' strategies) remain constant to zero; performance of university of Kigali would be achieved at a unit of 4.160. It was also indicated that a unit increase in students' recruitments' strategies would cause an increase in performance of university of Kigali Musanze Campus by a factor of 0.876. This was supported by Brown, (2005). Stated that students' recruitments 'strategies have become very competitive and

important exercise for private universities that need to expand and have higher performance. Since it is clear that the best marketers and immediate customers are students and staff, universities should ensure that they are satisfied.

#### **Influence of diversification strategy on performance of university of Kigali Musanze Campus**

The third objective of the study was to analyze whether diversification strategy influences performance of university of Kigali Musanze Campus.

**Table 14: Model Summary between diversification strategy and performance of University of Kigali Musanze Campus**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.934 <sup>a</sup>	.873	.871	1.20482

a. Predictors: (Constant), Diversification strategy

b. Dependent: Performance of universities

The results of the findings from the table 14 showed that the regression coefficient (R) = 0.934 indicated that there was strong relationship between diversification strategy and with the performance of University of Kigali Musanze Campus. Considering  $R^2$  in statistic indicated the variation in the dependent variable due to independent variable. From the findings of table 14, the value of  $R^2 = 0.873$  indicated that diversification strategy explained 87.30% of the change in performance of University of Kigali Musanze Campus. The results of findings also indicated that the coefficient of determination, adjusted  $R^2 = 0.871$ . Therefore, the findings showed that diversification strategy contributed to 87.1% of

the variation in the performance of University of Kigali Musanze Campus which shows that the model is a good prediction. This was supported by Mungathia (2018); diversification strategy is the way of developing new programs that enhance financial sustainability because with many programs, students will keep on coming, and as they pay their fees, the university is able to raise income since school fees provides the greatest income to the institution. Universities had embarked not only in increasing the programs developed but also in developing programs aimed at meeting the market demand that shows the strong performance of universities

**Table 15: ANOVA between diversification strategy and performance of University of Kigali Musanze Campus**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	626.488	1	626.488	431.586	.000 <sup>b</sup>
	Residual	91.451	63	1.452		
	Total	717.938	64			

a. Dependent Variable: Performance of Universities

b. Predictors: (Constant), Diversification strategy

The results of the findings from the table 15 indicated that the ANOVA statistics show that the significance ( $p = .000^b$ ,  $F=431.586$ ) was less than the recommended critical significance at 0.05. Therefore, the regression model is statistically significant in predicting how diversification strategy influences performance of university of Kigali Musanze Campus. Since the p-value was less than 0.05 ( $P\text{-value} = .000^b$ ) obtained, then alternative hypothesis is accepted while null hypothesis is rejected. This was supported by Oketch (2003) who

confirmed that diversification strategy had a significant effect on performance of higher education. Diversification was seen as a powerful tool which cannot be ignored by any tertiary institution that plans to grow and develop. This is therefore the way forward for education as it enhances availability, affordability and accessibility of quality education to students scattered all over the world and hence save the universities from expanding their infrastructure (Brown, 2005).

**Table 16: Estimated coefficient model between diversification strategy and performance of university of Kigali Musanze Campus**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	13.230	1.366		9.688	.000
Diversification strategy	.675	.032	.934	20.775	.000

- a. Dependent Variable: Performance of universities
- b. Predictors (constant): Diversification strategy

From the table 16 the results of the findings of regression coefficients showed that there was a positive and significant influence between diversification strategy and performance of university of Kigali Musanze Campus where the regression diversification strategy was 0.675 ( $p\text{-value} = 0.000$ ). This implied that diversification strategy had strong positive relationship on performance of university of Kigali Musanze Campus. Under this study the following regression equation was obtained:  $Y = 13.230 + 0.675X_1$  where  $Y$  = Performance of university,  $X_1$  = diversification strategy. Implied that holding other factors (diversification strategy) remain constant to zero, the performance of University of Kigali would be achieved at a unit of 13.230. It was also indicated that a unit increase in diversification strategy would cause an increase in performance of university of

Kigali Musanze Campus by a factor of 0.675. This was supported by Bellon (2005), diversification strategy was seen as a way of growing students' numbers hence higher performance. In addition to bring new programs, the universities also check the performance of the program in terms of its viability. Diversification is a major strategy that enhances the growth of the institution, since it leads to more probability of having more students if there is variety of programs to choose from. (Brown, 2005).

**Moderating influence of education policies and experience of employees on performance of University of Kigali Musanze Campus.**

The fourth objective was to establish a moderating influence of education policy and experience of employees on performance of University of Kigali Musanze Campus.

**Table 17: Model Summary between education policy, experience of employees and performance of University of Kigali Musanze Campus**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901 <sup>a</sup>	.812	.809	1.46417

a. Predictors: (Constant), Education policy and experience of employees

b. Dependent variable: Performance of Universities

The result in the table 17 showed that the regression coefficient (R) = 0.901 showed that there is a strong positive relationship between education policy and experience of employees and performance of university. Considering R<sup>2</sup> in statistic indicate the variation in the dependent variable due to independent variable. From the findings of table 17, the value of R<sup>2</sup>=0.812 indicated that education policy and experience of employees explained 81.2 % of the influence of performance of university of Kigali Musanze Campus. The results of findings also indicated that the coefficient of determination, adjusted R<sup>2</sup>= 0.809. Therefore, the findings showed that education policy and experience of employees

contributed to 80.9% of the variation in the performance of University of Kigali Musanze Campus which shows that the model is a good prediction. This was supported by (Dubrin, 2009). The management approach recognizes that the contribution of an organizations people is critical to the creation of a competitive advantage. Employers acknowledge that their organizations will increase if they can engage their employees, meaning that they will be fully motivated to give of their very best to their employee engagement in order to achieve the high-performance workforce that will give them this edge (Foot and Hook, 2008).

**Table 18: ANOVA between education policy and experience of employees and performance of university of Kigali Musanze Campus**

Model		Sum of Squares	Df	Mean Square	F	Sig.
\1	Regression	582.880	1	582.880	271.893	.000 <sup>b</sup>
	Residual	135.058	64	2.144		
	Total	717.938	65			

a. Dependent Variable: Performance of universities

b. Predictors: (Constant), Education policy and experience of employees

The results of the findings from the table 18 indicated that the ANOVA statistics show that the significance (p = .000<sup>b</sup>, F=271.893) was less than the recommended critical significance at 0.05. Therefore, the regression model is statistically significant in predicting how education policy and experience of employees influence performance of university of Kigali Musanze Campus. Since the p-value was less than 0.05 (P-value= .000<sup>b</sup>) obtained,

then alternative hypothesis is accepted while null hypothesis is rejected. Meant there was significant influence between education policy and performance of university of Kigali Musanze Campus. According to Price, (2007), employees are motivated by various needs, so the management should try and understand employee's needs and fulfill them to avoid poor performance in their organizations.

**Table 19: Estimated Coefficients model between education policy and experience of employees and performance of university of Kigali Musanze Campus.**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)					
1. Education policies and experience of employees	10.845	1.864		5.819	.000
	.724	.044	.901	16.489	.000

a. Dependent Variable: Performance of universities

The results from the table 19 indicated that there was a significant positive relationship between education policy and experience of employees and performance of university of Kigali Musanze Campus. Where the regression coefficient of education policy and experience of employees was 0.724 (p-value =0.000). This implied that education policy and experience of employees had strong positive relationship on performance of university of Kigali Musanze Campus. Under this study the following regression equation was obtained:  $Y=10.845 +0.724 X_1$  where Y = performance of university,  $X_1$  = education policy and experience of employees. Implied that holding other factors (education policy and experience of employees) remain constant to zero, performance of university of Kigali would be achieved at a unit of 10.845. It was also indicated that a unit increase in education policy and experience of employees would cause an

increase in performance of university of Kigali by a factor of 0.724. This was supported by Hill-Mcshane (2009), Employees are important assets in any organizations because they contribute to the performance of the organization. Motivation begins with the employees own drives and needs. High performance is achieved by well-motivated employees who are prepared to exercise discretionary efforts. There is also a need to motivate employees to add more effort to their duties, deliver quality services and produce quality products. Motivated employee is a productive employee. Performance is as a result of ability and motivation (Mitchell, 1982).

**Influence of financial sustainability strategies on performance of Universities in Rwanda**

The general objective of the study was to analyze the influence of financial sustainability strategies on performance of university.

**Table 20: Model Summary between financial sustainability strategies and performance of Uok Musanze Campus**

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.992 <sup>a</sup>	.983	.982	.44572

a. Predictors: (Constant), Resource allocation, students recruitment strategies, diversification strategy and education policy and experience of employees.

b. Dependent variable: Performance of Universities (Reputation, quality of service and innovation).

The result in the table 20 showed that the regression coefficient (R) = 0.992 showed that there

was a strong relationship between financial sustainability strategies (Resource allocation, students' recruitment strategies, diversification strategy and education policy and experience of employees). Considering  $R^2$  in statistic indicated the variation in the dependent variable due to independent variable. From the findings of the table 20, the value of  $R^2= 0.983$  indicated that financial sustainability strategies (Resource allocation, students' recruitment strategies, diversification strategy and education policy and experience of employees) explained 98.30% of the change in performance of university (reputation, quality of service and innovation). The results from the table 20 indicated that the coefficient of determination, adjusted  $R^2= 0.982$  obtained from the model summary, coefficient of determination was used to explain whether the model is good predictor. From the results of the analysis, the findings show that

financial sustainability strategies (Resource allocation, students' recruitment strategies, diversification strategy and education policy and experience of employees) contributed to 98.2 % of the variation in performance of university (reputation, quality of service and innovation) which shows that the model is a good prediction. This was supported by Sazonov, Ekaterina, Irina and Elena (2015) evaluated financial sustainability of higher education institutions in Russia. The authors noted that financial sustainability in a university is achieved where the institution produces sufficient income to enable it to invest in future academic and research activities. In addition, the author noted that it is imperative for institutions of higher education to employ financial strategies for mobilizing, allocating and utilizing resources in order to improve financial sustainability.

**Table 21: ANOVA Summary between financial sustainability strategies and performance of university of Kigali Musanze Campus**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	706.019	4	176.505	888.464	.000 <sup>b</sup>
Residual	11.920	60	.199		
Total	717.938	64			

a. Dependent Variable: Performance of universities

b. Predictors: (Constant), Resource allocation, students' recruitment strategies, diversification strategy and education policy and experience of employees.

The results of the findings from the table 21 indicated that the ANOVA statistics showed that the significance ( $p = .000^b$ ,  $F=888.464$ ) was less than the recommended critical significance at 0.05. Therefore, the regression model is statistically significant in predicting how financial sustainability strategies (resource allocation, students' recruitment strategies, diversification strategy, education policy and experience of employees)

influence performance of university of Kigali Musanze Campus (reputation, quality of service and innovation). Since the p-value was less than 0.05 ( $P\text{-value} = .000^b$ ) obtained, then alternative hypothesis is accepted while null hypothesis is rejected. This was supported by Ouma (2007) noted that revenue generation is one of the tools that can be used to ensure financial sustainability in institutions of higher learning.



**Table 22: Estimated Coefficients between financial sustainability strategies and performance of university of Kigali Musanze**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	7.960	.739		10.771	.000
Resource allocation	.437	.037	.666	11.950	.000
Students' recruitments strategies	.098	.036	.096	2.718	.004
Diversification strategy	.016	.040	.022	.398	.005
Education policy and experience of employees	.206	.028	.256	7.339	.000

- Dependent Variable: Performance of universities
- Predictors (Constant): Resource allocation, students 'recruitments strategies, Diversification strategy and education policy and experience of employees

The results from the table 22 indicated the estimated coefficients of the model which showed that there is a positive relationship between financial sustainability strategies (resource allocation, students 'recruitments strategies, diversification strategy and education policy and experience of employees) while the dependent variable was performance of university (reputation, quality of service and innovation). Basing on the results from the table 22 the multiple regression model equation became  $Y = 7.960 + 0.437X_1 + 0.098X_2 + 0.016X_3 + 0.206X_4$ . From this multiple regression model, holding other factors remain constant to zero, (resource allocation, students 'recruitment strategies, diversification strategy and education policy and experience of employees) remain constant to zero, performance of university of Kigali Musanze Campus( reputation, quality of service and innovation) would be achieved at a unit of 7.960. It was also indicated that a unit increase in resource allocation, would cause an increase in performance of university of Kigali Musanze Campus( reputation, quality of service and innovation) by a factor of 0.437, a unit increase in students 'recruitment strategies would cause an increase in performance of university of Kigali Musanze Campus( reputation, quality of service and

innovation) by a factor of 0.098 , a unit increase in diversification strategy would lead to an increase in performance of university of Kigali Musanze Campus( reputation, quality of service and innovation) by a factor of 0.016 and a unit increase in education policy and experience of employees would lead to an increase in performance of university of Kigali Musanze Campus( reputation, quality of service and innovation) by a factor of 0.206. This was supported by Chalk and Hemming, (2000) who confirmed that financial sustainability is a goal that all institutions strive to achieve and it is largely used as a measure of good performance.

### CONCLUSION AND RECOMMENDATIONS

The study concluded on the influence of financial sustainability strategies on performance of Universities in Rwanda a case of University of Kigali Musanze Campus (2017-2020). The study concluded that all dimensions of financial sustainable strategies resource allocation, students 'recruitments strategies, and diversification strategy have positive and significant influence against performance of universities measured by reputation, quality of service and innovation. This justified by testing all specific objectives of this

study; based on the results of the findings on the first objective, the study concluded that there was a strong positive relationship between resource allocation and performance of university of Kigali Musanze Campus. Based on the results of the findings on the second objective, the study concluded that there was a strong positive relationship between students 'recruitments strategies and performance of University of Kigali Musanze Campus. Based on the third objective of this study, it concluded that there was a strong positive relationship between diversification strategy and performance of university of Kigali Musanze Campus. Based on the fourth objective, the study concluded that there was a strong positive relationship between education policies and experience of employees and performance of University of Kigali Musanze Campus.

The study was attained all its objectives and all hypotheses of the study were tested and confirmed where all alternative hypotheses of all financial sustainable strategies were accepted while null hypotheses were rejected. Based on the findings of the study, it is concluded that financial sustainable strategies have a great influence on performance of Universities in Rwanda because the results show that all the dimensions have positive and significant influence of financial sustainable strategies on performance of Universities in Rwanda. Specifically, resource allocation, students 'recruitments strategies, and diversification strategy desk relate positively with performance of universities in Rwanda. Therefore, strategies adopted were found to be relevant in terms of ability to establish financial sustainable universities, these strategies were in terms of recruiting sufficient students numbers that would cause the university to grow, proper allocation of resources both in short-term and long term in order to avoid "resource curse"

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program development, review and diversification to meet the needs on the market these kind of strategies lead to a financial sustainable universities hence higher performance.

Based on findings of this study, the Ministry of education should enforce the use of e-learning in higher learning institutions.

Since the main purpose of universities is to offer education, the study recommended private universities of Rwanda to prioritize income generating strategies in relation to education like students 'recruitments strategies to increase students' enrolments as its main source is students' fees, diversification strategy by bringing new programs needed to the market and offer quality of education that would lead to establishment of financial sustainable universities.

Based on findings of this research, the study recommended University of Kigali to develop modern physical facilities that would attract students and remain relevant to the changing arising in technology and job market.

The study also recommended University of Kigali to prioritize resource allocation to industrial visit and research to ensure qualified students fit the markets.

### Suggestion for further studies

The study analyzed the influence of financial sustainability strategies on performance of universities in Rwanda for a period of 2017-2020. The study recommended similar studies to be carried out by taking different specific objectives. It would also be interesting to carry out research on a comparative study on financial sustainability strategies on performance in private and public universities in Rwanda.

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