

## Influence of Credit Controls on Sustainable Financial Prudence in Public Universities in Kenya

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**Abstract:** The study examined the influence of credit controls on sustainable financial prudence in public universities in Kenya. The financial management model and the classic microeconomic theory guided the study. The study adopted descriptive survey research design. The study was conducted across six selected chartered public universities in Kenya where a total of 289 accounts, finance, and management staff working with the foregoing institutions comprised the study population. A sample of 127 respondents was obtained from the study population using stratified random sampling method. The study employed a structured questionnaires to collect data. The research questionnaire was pilot tested in order to determine its reliability and validity before it was used to collect data for the main study. The data collected were analyzed by the aid of the Statistical Package for Social Sciences Version 24 software. Data analysis employed both descriptive statistics and inferential statistics. The findings of the study were presented in form of statistical tables. The relationship between credit controls and sustainable financial prudence in local public universities was found to be positive, strong and significant ( $r= 0.674$ ;  $p< 0.05$ ). Moreover, the study indicated that 45.4% of sustainable financial prudence in local public universities could be attributed to credit controls. It was concluded that credit controls were essential in enhancing sustainable financial prudence in local public universities.

**Keywords:** Classic microeconomic theory, credit controls, financial management model, financial prudence, public universities, sustainable financial prudence,

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### I. Introduction

Prudence is generally a guiding principle setting out good accounting practices. Ultimately, the firm will use the best judgment in determining how and when to record an accounting transaction. Prudence concept is also referred to as the conservatism principle. Conservatism principle recognizes expenses and liabilities when there is uncertainty about the outcome but only recognizes revenues and assets when they are assured of being received.

Financial Accounting Standards Board founded in 1973, is a seven-member independent board of professional accountants that determines standards for financial accounting and reporting. It operates under the principle that organizations operate smoothly when credible, concise and clear financial information is available. It has published a variety of rules and clarifications on how accounting ought to be carried out. The rules and clarifications published by FASB are meant to ensure that corporations fully account for different kinds of income, properly categorize and fully record income and expenditure in the year they occur. Financial prudence is a theme that is synonymous in all organizations; private or public. It involves ensuring that the finances at the disposal of the firm are employed in tandem with their intended use. Financial prudence encapsulates the sourcing of funds and how those funds are utilized. A study tested the aspect of financial prudence. They noted that financial prudence is linked to financial portfolio [1].

Other scholars observed that financial prudence could enlighten university students to avoid debt and wasteful spending which could consequently lead to financial soundness [2]. They explain that financial prudence entails making well informed financial decisions and ensuring that the expenditure is within the budget allocated. Prudent financial management largely determines the performance of learning institutions. Competence in financial management enables competent preparation of books of accounts and financial statements as well as financial reporting and auditing.

The comprehensive report on Nigerian public universities of 2012 advocated for better financial management in these institutions of higher learning which will unearth the decay and enforce revitalisation of the university system. The government funding to the public universities in Nigeria accounts for the highest annual public spending. Other sources of funding include capital allocation, internally generated revenue,

research grants and donations. Government funds are provided to the institutions in Nigeria using such methods as performance based funding, strategic funding, historical funding and formula funding.

The governing body in public learning institutions in South Africa should ensure that there are procedures and policies put in place for the effective management of the institutions' finances [3]. The author it is further posited that and procedures and report on the deviances are highly emphasized. It was also opined that financial policy is the most fundamental in running financial affairs of any learning institution [4]. As such, it was argued that, it is important for such institutions to put in place checks and balances to ensure that the learning institutions' finances are safeguarded and prudently managed.

In Kenya, the passing of requisite legislations that encompassed amongst others, the Public Finance Management (PFM) Act, 2012 and the inception of the second strategy for PFM reforms in 2013 paved way for prudent financial management in both national and county government levels. The Public Finance Management Act of 2012 is an Act of Parliament established to provide for the effective management of public finances by the national and county governments; the oversight responsibility of parliament and county assemblies; the different responsibilities of government entities and other bodies; and for connected purposes.

The national government has prioritized, over the past few years, an effective management of budget deficit and ensured that there is prudent borrowing in order to ensure debt sustainability [5]. Another report examined Intergovernmental Relations Act of 2012 and PFM Act of 2012 [6]. Intergovernmental Relations Act of 2012 is an Act of Parliament establishing a framework for consultation and cooperation between the national and the county governments and amongst county governments; to establish mechanisms for the resolution of intergovernmental disputes pursuant to Articles 6 and 189 of the Constitution of Kenya, (2010); and for connected purposes.

According to the Kenya Education Sector Report 2016-2019 MTEF [7], there are thirty chartered public universities in Kenya, three Public University Colleges, eighteen private chartered universities and fourteen universities operating with Letters of Interim Authority (LIA), five Private University Constituent Colleges. The universities operating with letters of interim authority from the commission receive guidance and direction to continue developing resources and facilities in preparation for full university accreditation. Just like other public entities, public universities in Kenya are required to have sustainable financial prudence. Granted that these entities are confronted by issues of credit, it is imperative, therefore, to examine the extent to which credit controls influence sustainable financial prudence.

## **II. Statement of the Problem**

Given the act that education is the primary mainstay of many societies and nations, it is, therefore, imperative or the government to ensure that its citizenry not acquires basic education, but also advances the same to the highest level possible essentially in universities. Student enrolment in public universities in Kenya has risen by a margin of almost 20% between 2013 and 2014 and by slightly soared by slightly over 10% in the following year [8]. The foregoing illustrates a declining increase in student enrollment in public universities in Kenya; a factor that could be attributed to constrained resources including the faculty and infrastructure. The State funding of public universities in Kenya is on the decline [9]. With further indications that the funding declined by about 6% between years 2014 and 2015, the same period that the increase in student enrollment in the aforesaid institutions also declined. There have been mediocre financial management systems in public universities which facilitate channeling the funds to non-strategic projects rather than equipping the institutions with the necessary infrastructure for enhanced performance. This is in spite of the increasingly unaffordability of higher education in Kenya to the vast majority of qualified students who miss out of the government's funding through the Higher Education Loans Board (HELB). Public universities through the Self-Sponsored Programme (SSP) popularly referred to as 'parallel degree programme' charge exorbitant fees to students thus excluding majority of them from accessing higher education. This points out to lack of sound strategies to address issues pertinent to sustainable financial prudence, where public universities largely rely on the fees they charge students on SSP besides the reducing government funding. Credit controls have hitherto been hypothesized to play, though unclear, in regard to sustainable financial prudence in public universities. In respect of the foregoing, and in acknowledgment of the scarcity of empirical evidence to this effect, it is imperative to analyze the influence of credit controls on the aforesaid financial prudence in public universities in Kenya.

### **Objective of the Study**

To assess the effect of credit controls on sustainable financial prudence in public universities in Kenya

### **Research Hypothesis**

H<sub>0</sub>: Credit controls have no significant influence on sustainable financial prudence in public universities in Kenya.

H<sub>A</sub>: Credit controls have significant influence on sustainable financial prudence in public universities in Kenya.

### **III. Theoretical Review**

Theories and/or models that explain credit controls and sustainable financial prudence are reviewed and discussed in the context of public universities in Kenya. The financial management model and the classic microeconomic theory are reviewed and discussed.

#### **3.1 Financial management model (CIPFA Model)**

The financial management model was developed by the Chartered Institute of Public Finance and Accountancy [10]. Since its development, the model has been tailored for the challenging financial climate in which public organizations must operate. Finance has been dubbed as the lifeblood of any public institution and how it is used and managed has to be a fundamental concern of management and concerned leaders. Finance managers and professionals need to be financially literate in order to provide the much needed support. The CIPFA model of financial management revolves around stewardship, supporting performance and enabling transformation.

The model is also useful in securing stewardship, laying emphasizes on control, meeting regulatory requirements and accountability. Supporting performance encompasses being responsive to customers in an efficient and effective manner with the aim of improving performance [11]. The model is designed for application by the organization leaders, finance staff and service managers as an improvement tool for bodies to measure themselves against an external framework of good practice and for aligning financial management with the organizations own development path and priorities.

The model is based on statements of best practice and standards ranging from self-assessment to testing known problems in a given organization [12]. In other words, the self- assessment of the organization aids such an organization to profile the strengths and weaknesses of financial management, the financial management style used in the organization and the extent to which it is aligned with the goals and objectives of the organization. The model further helps an organization to examine the aspects of financial management such as financial planning, capacity to drive down costs and accountability for spending, build a team-based approach to improvement in financial management.

It also helps organizations to compare where financial management is currently and where it ought to be for maximization of organizational effectiveness and identify strengths and areas for improvements [11]. The model can be applied in public universities to develop a robust financial management fit for their business goals. The model provides for profiling strengths and weaknesses for efficient financial management. With the help of the model public universities can capitalize on their strengths and improve on weaknesses.

Such uses include professionalized procurement, risk controls, planning or even governance. The model could be employed to explain the aspect of sustainable financial prudence in public universities. The model holds that finance is the lifeblood of public institutions, and these include public universities. As such, these institutions are supposed to always have sufficient financial resources to run their programmes and projects. As the theory argues, public universities should have effective financial planning, capacity to drive down costs and accountability for spending.

In addition, the model argues that universities should build a team-based approach to improvement in financial management, compare where financial management is currently and where it ought to be for maximization of universities' effectiveness. The relevance of this model to this study emanates from the responsibility vested on public universities in Kenya to display good stewardship in financial management.

#### **3.2 Classic Microeconomic Theory**

The classic microeconomic theory states that financial sustainability can be modeled by employing a marginal-revenue-cost approach [13]. The theory holds that by determining the behaviour of a given entity, it is imperative to calculate and compare amounts that additional unit of output would add to the total income (revenue) and also the marginal cost of each successful unit of production. The theory further postulates that when marginal cost is compared to marginal revenue of each successful unit of production, an organization should not entertain any unit of production where marginal cost exceeds marginal revenue for such an entity to realize positive returns. In the context of non-profit making entities such as public universities, the marginal costs should always be lower than marginal revenue for the entities to be financially sustainable and also have financial resources to facilitate their growth and development.

According to the theory, prices of output are subject to market forces of demand and supply which is akin to a perfect competition situation. Thus, for entities to remain financially sustainable, they must maximize their returns as they purpose to minimize their losses in the short-term by ensuring that production is done at equilibrium. Entities are required to ensure that they produce only when marginal revenue is greater than average variable costs, that encompasses variables costs such as labour and materials divided by output [13]. It is further asserted that an organization cannot manage to produce and realize a loss less than its fixed costs, a situation that deems the entity financially unsustainable. In the same context, the theory can be employed to

determine the financial viability and sustainability of an academic institution (public university) offering a certain course or programme [14]. Though the classic microeconomic theory is highly applicable in the case of for-profit academic institutions [15], it is also applicable in public universities due to the fact that the latter entities pursue to become financially sustainable.

#### **IV. Empirical Review**

Past studies in respect of credit controls and sustainable financial prudence are reviewed.

##### **4.1 Credit Controls and Sustainable Financial Prudence**

A paper examined the subject of quality credit control based on asset information and forensic credit amongst Indonesian banks [16]. Credit control relates to regulation of either the price of credit interest rates or the quantity of credit extended for various purposes. It is also a strategy employed by organizations to promote credit to creditworthy customers and to accelerate collections from credit customers while ensuring reduced or no resultant bad debts. Credit control includes strategies of reducing credit risk.

A credit risk is the risk of default on a debt due to the borrower's inability to make the installment payments on schedule or failure to pay the total debt which leads to loss of the principle amount of the debt and interest and disruption to cash flows and increased collection costs. In particular, the study investigated the impact of quality credit control on credit performance. In line with the study findings, it was recommended that the banks ought to build an adequate credit control based on asset information with strict procedures. Banks were also advised to implement a forensic audit on debtors' behavior through, for instance, analysis of debtors' financial track record.

The study further recommended that banks should have strict credit procedures. It is stated that, organizations rate their prospective customers using what is referred to as the 5Cs of credit appraisal. As earlier cited, the concept of 5Cs of credit appraisal was pioneered in an analysis of successful microfinance institutions. As explained, 5Cs are credit history, capacity, collateral, capital and condition.

Credit history of the borrower refers to the track record the individual has established in the course of managing credit and making loan repayments over time. The authors further explain that capacity of the borrower refers to the ability of the borrower to manage loan repayments. Past income and employment history are used as indicators of the ability. Collateral refers to the type of security the borrower provides to cover the loan. Capital represents the savings, investments and other assets that can help the borrower repay the loan. Condition refers to the purpose of the loan including the environment and economic environment. Another empirical study analyzed credit risk efficiency with a special interest in Taiwanese banking industry [17].

The study employed financial ratios to assess credit risk of 34 Taiwanese commercial banks between 2005 and 2008. The performance was analyzed using credit risk parameters. They found that only a single bank enjoyed efficiency in all types of efficiencies that were evaluated. Most of the banks that suffered from global financial crunch in 2008 were found to have many bad debts, overdue loans and/or loss of profitability. In conclusion, it was suggested that banks should have various credit risk management strategies in order to survive in the dynamic environment.

An empirical study conducted in Kenya examined the effectiveness of credit management system on loan performance in the Kenya's microfinance sector [18]. The study was necessitated by the high levels of non-performing loans in many microfinance institutions (MFIs) which had threatened the viability and sustainability of MFIs. The study specifically analyzed the effect of components of credit management system on loan performance.

They identified the components of credit management system as credit terms, client appraisal, credit risk control measures, and credit collection policies. They established that the credit control policies had the most significant effect on loan performance amongst MFIs. Another analysis investigated the effect of credit management on the financial performance of MFIs in Kenya [19]. The study involved 59 firms that are members of the Association of Microfinance Institutions (AMFI). The study revealed that there exists a strong relationship between financial performance of MFIs and client appraisal, credit risk control, and collection policy. The study established that the collection policy had a greater effect on financial performance than the other parameters.

Subsequently, firms were advised to improve their debt collection policy by employing a stringent credit management policy. Another study by established that the major factors that contribute to credit rationing by commercial banks in Kenya are the loan characteristics and the firm characteristics [20]. Loan amount was determined by the interest rate, the collateral provided and the loan maturity. The firm characteristics included the risk profile and the earnings of the firm. They held that weak policies on control of credit lead to delay or non-collection of debts and unpredictable cash levels. This hampers achievement of sustainable financial prudence.

**4.2 Sustainable Financial Prudence**

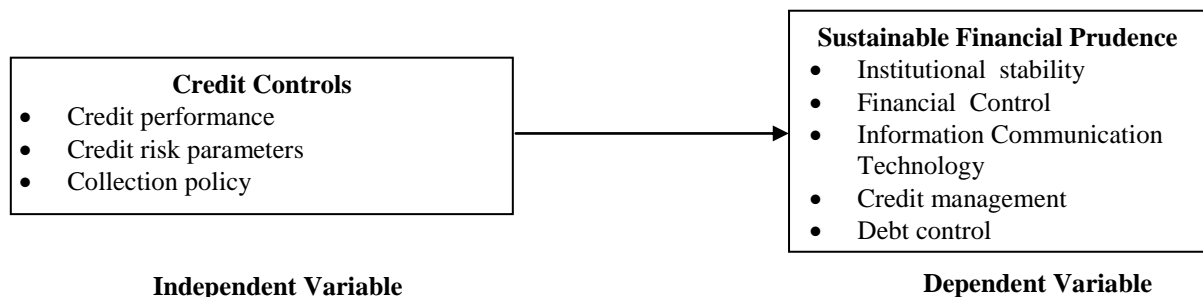
A study on financial prudence argued that financial prudence is linked to financial portfolio [1]. Financial portfolio aims at placing its funds available for investment in assets whose returns are affected differently by economic conditions to enable organizations to sustain their expected income. The study concluded that 90 per cent of studies on the cost of capital indicate that prudent sustainability standards lower the cost of capital. 80 per cent of studies illustrate that stock price performance of firms is positively affected by good sustainability practices. They note that it is beneficial to investors and corporate managers to incorporate sustainability considerations into the decision making processes. They emphasize that there is a relation between longevity and performance of firms. Essentially, high performing firms have a high likelihood of operating long into the future.

Similarly, it is acknowledged that sustainability is one of the most significant trends in financial markets over the years [4]. The study concurs that, the content, focusing on financial sustainability is the same regardless of investor’s desire for sustainable responsible investing (SRI). Management perceive sustainability as an avenue of gaining competitive advantage relative to competitors [21]. The relationship between sustainability and performance is debatable and is a subject of many empirical studies that seek to confirm the positivity of that link [22].

The study concluded that sustainable development policies can create a strong wall that protects firms against crisis through its three crucial pillars namely environmental, social and economic. It was also observed that the solutions for financial sustainability are subject to the size and organizational structure. There is a scarcity of local empirical studies into the theme of financial prudence. This partly persuades the present study to be carried out with a view of bridging the existing research and knowledge gaps.

**1. Conceptual Framework**

A conceptual framework is a diagrammatic representation of study variables and how they are hypothesized to interact. Figure 1 shows the conceptual framework employed in this study.



**Figure 1: Conceptual framework**

As shown in Fig 1, the independent variable constitute credit controls while the dependent variable is sustainable financial prudence. Credit controls are characterized by three parameters relative to the sustainable financial prudence that ensure good debt management. These include credit performance, credit risk parameters and collection policy. On the other hand, the indicators for sustainable financial prudence include institutional stability, financial control, information and communication technology, credit management, and debt control. It was hypothesized that credit controls influenced sustainable financial prudence in public universities in Kenya.

**V. Research Methodology**

Research methodology outlines the modalities that should be followed to undertake a research project [23]. It is a way used to solve research problems systematically. It explains the various steps used by a researcher in analyzing the research problem and the logic that go with those steps [24]. This section, therefore, covers the research design, target population, sample size and sampling technique that guided the research study. In addition, the research instrument used in data collection, pilot testing of the same and how the collected data were analyzed are outlined in this chapter. Lastly, the methodology explains how the study findings were presented.

**5.1 Research Design**

A research design is the blueprint of the entire study [23]. Research design describes how the research question can be answered by selecting the appropriate technique, approach and methodology. The study employed descriptive survey research design where the views of the respondents pertaining the study themes were examined. Descriptive designs are used to portray an accurate profile of persons, events or situations. The

study method implied that the data were collected over a relatively vast population and the study was conducted over a specific duration of time.

### 5.2 Target Population

Population is defined as the aggregate of individuals sharing similar characteristics [24]. On the other hand, accessible population constitutes the subjects which the researcher can reach and collect data from. The 289 staff attached to the accounts, finance, and management sections of the 6 pioneer chartered public universities in Kenya constituted the accessible population.

### 5.3 Sample Size and Sampling Technique

A large study population necessitates sampling [24]. The foregoing justifies the sampling of the 289 staff working with the aforementioned universities. The formula by Nassiuma was employed to calculate the sample size as shown below [25].

$$n = \frac{NC^2}{C^2 + (N - 1)e^2} \quad \text{Where}$$

n represents sample size

N represents population size

C represents Coefficient of variation ( $21\% \leq C \leq 30\%$ )

e represents Precision level ( $2\% \leq e \leq 5\%$ )

Substituting these values in the equation, estimated sample size (n) was:

$$n = \frac{289 (0.25)^2}{0.25^2 + (289-1)0.02^2}$$

$$n = 101.65$$

$$n = 102 \text{ respondents}$$

The 102 sampled respondents were drawn from the accessible population using stratified random sampling technique. According to Kothari [24], this sampling method ensures that there is equitable and fair distribution of respondents across all strata. The 6 chartered public universities constituted 6 strata while the accounts, finance, and management sections where the respondents were attached in each institution comprised additional 3 strata in every of the surveyed universities.

### 5.4 Data Collection Tool

The study employed a structured questionnaire to collect data from the sampled respondents. A questionnaire is the most suitable tool for facilitating data collection in a survey study [26]. The questionnaire contained close-ended questions that addressed credit controls and sustainable financial prudence themes. Moreover, the questions were structured in a manner that enabled collection of Likert scale data.

### 5.5 Pilot Testing

A pilot test was conducted amongst randomly selected accounts, finance and management staff working with MasindeMuliuro University of Science and Technology. The participants in this study were approximately 10 per cent of the sample size [24]. The filled questionnaires collected at this stage underwent both reliability and validity tests.

### 5.6 Reliability Testing

Reliability describes the consistency of a data collection tool. The study employed the Cronbach alpha coefficient to test the reliability of the tool. This method was suitable since the data subject to study constructs were on Likert scale [27]. The instrument was deemed reliable after attaining the alpha threshold of 0.7 as shown in Table 3.3.

**Table 1: Reliability Test Results**

| Study Construct                | Test Items | Cronbach Alpha Coefficient |
|--------------------------------|------------|----------------------------|
| Credit controls                | 5          | 0.784                      |
| Sustainable financial prudence | 6          | 0.800                      |

Moreover, the study assessed the content validity of the instrument. Validity is the extent to which the interpretations of the results of a given test are warranted [28]. A valid instrument is one that measures what it is intended to measure [27]. Content validity of the data collection tool was assessed by consulting the assigned university supervisors. After consulting the assigned supervisors, the instrument was amended in accordance with the suggestions made before it was employed in collection of the pertinent data.

**5.7 Data Collection Procedure**

Necessary authorization was sought from relevant authorities prior to embarking on data collection. The researcher issued the questionnaires in person to individual respondents. The filled questionnaires were collected from the sampled respondents after approximately 5 working days.

**5.8 Data Analysis and Presentation of Findings**

The Statistical Package for Social Sciences (SPSS) Version 24 software facilitated data processing and analysis. The analysis employed both descriptive and inferential statistics. Descriptive statistics constituted frequencies, percentages, means and standard deviations. On the other hand, inferential statistics were in form of both Pearson’s correlation co-efficient and linear regression analysis [24]. The following linear regression model was adopted.

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

Where:

- Y represents Sustainable Financial Prudence
- $\beta_0$  represents Constant
- $X_1$  represents Credit Controls
- $\epsilon$  represents Error Margin
- $\beta_1$  represent Regression Coefficient

The research hypotheses was tested at 95% confidence level. The results of the analysis were presented in form of tables.

**VI. Study Findings**

This section presents descriptive and inferential statistical results in relation to credit controls and sustainable financial prudence in public universities in Kenya.

**6.1 Descriptive Analysis, Interpretations and Discussions**

This section covers results of analysis, interpretations and discussions in relation to credit controls and sustainable financial prudence in public universities in Kenya. The key data collected in respect of the aforementioned study constructs were on a 5-point Likert scale. The percentages, means and standard deviations were used in making necessary interpretations and discussions.

**6.1.1 Credit Controls and Sustainable Financial Prudence**

The study analyzed the views of the sampled staff regarding credit controls in the context of sustainable financial prudence in public universities in Kenya. Credit controls relate to regulations or strategies employed by organizations to promote credit to creditworthy customers, aging of debtors as well as accelerate collections from credit customers. The data collected and subsequently analyzed were on a 5-point Likert scale where integers 1 (SD), 2 (D), 3 (N), 4 (A), and 5 (SA) represented ‘strongly disagree’, ‘disagree’, ‘neutral’, ‘agree’, and ‘strongly agree’ respectively. The pertinent descriptive results in form of percentages, means and standard deviations are as outlined in Table 2.

**Table 2: Descriptive Statistics for Credit Controls**

|  | SA   | A    | N    | D    | SD  | Mean | Std. Dev |
|--|------|------|------|------|-----|------|----------|
| There is a credit control policy               | 18.8 | 48.5 | 14.9 | 14.9 | 3.0 | 3.65 | 1.043    |
| Credit customers are assessed on a criteria    | 11.9 | 46.5 | 24.8 | 15.8 | 1.0 | 3.52 | 0.934    |
| There are clear terms of credit                | 10.9 | 57.4 | 18.8 | 10.9 | 2.0 | 3.64 | 0.890    |
| Ageing of debtors schedule is analyzed         | 9.9  | 57.4 | 21.8 | 9.9  | 1.0 | 3.65 | 0.830    |
| Student finance prepares timely reconciliation | 15.8 | 55.4 | 8.9  | 15.8 | 4.0 | 3.63 | 1.056    |

The grand mean for the study variables on credit controls is 3.61. This falls roughly on the integer 4 which represents agree on the 5-point Likert scale. This is an indication that, cumulatively, the respondents were agreed that the study variables on credit controls contribute to sustainable financial prudence in public universities in Kenya. Each of the study variables are discussed below with reference to previous studies. Further, there was a general consensus that the student finance section prepared timely reconciliations and follow-ups to ensure students paid fees on time (mean = 3.63; std dev = 1.056). Respondents either agreed (48.5%) or strongly agreed (18.8%) that there was a credit control policy outlining the procedure for customer assessment, credit terms and debt collection in public universities. Also, only 16.8% of the sampled staff disputed that prospective credit customers were assessed using established criteria. Cumulatively, 68.3% of the

sampled respondents believed that there were clear terms of credit specifying payment due dates and penalties for default.

While 57.4% of the respondents concurred that ageing of debtors schedule was analyzed in order to assess the risk of non-collection of existing debt, only 9.9% disputed the assertion. Lastly, 71.2% of the employees concurred that the student finance section prepared timely reconciliation and follow-ups to ensure timely fees payments. This complements an earlier study that had found that organizations rate their customers using what is referred to as the 5Cs of credit appraisal (credit history, capacity, collateral, capital and condition).

### 6.1.2 Sustainable Financial Prudence

The study further examined the views of the respondents in respect of sustainable financial prudence in public universities in Kenya. The analyzed data were on a 5-point Likert scale where 1 (SD), 2 (D), 3 (N), 4 (A), and 5 (SA) represented ‘strongly disagree’, ‘disagree’, ‘neutral’, ‘agree’, and ‘strongly agree’ respectively. The results to this effect are as illustrated in Table 3.

**Table 3: Descriptive Statistics for Sustainable Financial Prudence**

|   | SA   | A    | N    | D    | SD  | Mean | Std. Dev |
|---|------|------|------|------|-----|------|----------|
| IGAs and investments ensure sustainable stability | 10.9 | 48.5 | 11.9 | 22.8 | 59  | 3.36 | 1.128    |
| Compliance with internal control ensures prudence | 13.9 | 61.4 | 8.9  | 14.9 | 1.0 | 3.72 | 0.918    |
| There is modern ICT system in our university      | 21.8 | 58.4 | 7.9  | 8.9  | 3.0 | 3.87 | 0.956    |
| Timely, accurate reports enable decision making   | 14.9 | 59.4 | 13.9 | 9.9  | 2.0 | 3.75 | 0.899    |
| Credit controls ensure timely debt collection     | 14.9 | 41.6 | 20.8 | 19.8 | 3.0 | 3.46 | 1.063    |
| Debt control ensures low interest and collection  | 10.9 | 40.6 | 28.7 | 16.8 | 3.0 | 3.40 | 0.991    |

The grand mean for the study variables on to sustainable financial prudence in public universities in Kenya is 3.61. This falls roughly on the integer 4 which represents agree on the 5-point Likert scale. This is an indication that, cumulatively, the respondents were agreed that the study variables wholly contribute to sustainable financial prudence in public universities in Kenya. Each of the study variables are discussed below with reference to previous studies. The study observed that 59.4% of the respondents believed the various IGAs and investments undertaken in public universities ensured sustainable financial stability. 75.3% of the respondents admitted there was compliance with internal controls in public universities.

It was also admitted that there were modern ICT systems in public universities in Kenya (80.2%); and timely and accurate reports were produced which enabled proper decision making (74.3%). It was noted at least 56.5% of the sampled respondents admitted to be true that credit control processes in local public universities ensured timely debt collection from students and credit customers, a fact which reduced default rate. Slightly above 50% of respondents admitted that proper debt management policies ensured fair borrowing rate and adherence to debt obligation. Cumulatively, respondents are of the view that the study variables contribute to sustainable financial prudence which concurs with a past study that had proposed that it is beneficial to investors and corporate managers to embrace sustainability considerations into the decision making process [1].

### 6.2 Inferential Analysis, Interpretations and Discussions

The study examined the influence of credit controls on sustainable financial prudence in public universities in Kenya. In respect of the foregoing, the study analyzed the correlation of the two variables. In addition, credit controls variable was linearly regressed against sustainable financial prudence.

#### 6.2.1 Relationship between credit controls and sustainable financial prudence

The Pearson’s correlation coefficient was employed to examine the relationship between credit controls and sustainable financial prudence. The pertinent results are as shown in Table 4.

**Table 4: Correlation between Credit Controls and Sustainable Financial Prudence**

| Credit controls |                     | Sustainable financial prudence |
|-----------------|---------------------|--------------------------------|
|                 | Pearson Correlation | .674**                         |
|                 | Sig. (2-tailed)     | .000                           |
|                 | n                   | 101                            |

\*\* Correlation is significant at the 0.01 level (2-tailed).

The results shown in Table 4 indicated that there was a positive, strong and statistically significant relationship between credit controls and sustainable financial prudence in public universities ( $r = 0.674$ ;  $p < 0.05$ ). Impliedly, enhancing credit controls was likely to result in improved sustainable financial prudence in the



stated learning institutions. On the other hand, in the event that credit controls were reduced. Sustainability of financial prudence in the aforementioned universities was bound to reduce. The results underscores the importance of credit controls in not only managing finances but also in ensuring that financial sustainability is realized by these public universities.

### 6.2.2 Influence of credit controls and sustainable financial prudence

Linear regression analysis was conducted on the data collected with the object of determining the extent to which credit controls influenced sustainable financial prudence in public universities. The results to this effect are as illustrated in Table 5, Table 6, and Table 7.

**Table 5: Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .674 <sup>a</sup> | .454     | .448              | .59413                     |

**a. Predictors: (Constant), Credit Controls**

The study results as indicated by the coefficient of determination ( $R^2 = 0.454$ ) revealed that 45.4% of sustainable financial prudence in public universities could be attributed to credit controls. The results further underlined the important role the credit controls play in ensuring sustainable financial prudence in public universities in Kenya.

**Table 6: Analysis of Variance**

| Model        | Sum of Squares | df  | Mean Square | F      | Sig.              |
|--------------|----------------|-----|-------------|--------|-------------------|
| 1 Regression | 29.025         | 1   | 29.025      | 82.224 | .000 <sup>a</sup> |
| Residual     | 34.946         | 99  | .353        |        |                   |
| Total        | 63.971         | 100 |             |        |                   |

**a. Predictors: (Constant), Credit Controls**

**b. Dependent Variable: Sustainable Financial Prudence**

The findings shown in Table 6 ( $F = 82.22$ ;  $p < 0.05$ ) compliment the results outlined in Table 5 ( $R = 0.674$ ) indicates that relationship between credit controls and sustainable financial prudence in public universities in Kenya was significant. This meant that the relationship between credit controls and sustainable financial prudence was statistically significant.

**Table 7: Regression Coefficients**

| Model           | Unstandardized Coefficients |            | Standardized Coefficients |       |      |
|-----------------|-----------------------------|------------|---------------------------|-------|------|
|                 | B                           | Std. Error | Beta                      | t     | Sig. |
| 1 (Constant)    | .876                        | .305       |                           | 2.868 | .005 |
| Credit Controls | .750                        | .083       | .674                      | 9.068 | .000 |

**a. Dependent Variable: Sustainable Financial Prudence**

According to the results shown in Table 7, a change in 1 unit of sustainable financial prudence required a change 0.750 unit of credit controls while holding other pertinent factors constant (0.874). In addition, the results indicated that while holding other factors constant, 0.750 unit of credit controls would lead to enhancement o sustainable financial prudence by 1 unit.

### 6.3 Testing null hypothesis

The null hypothesis was tested using the results of the t-statistics illustrated in Table 7 as shown below.

- i.  $H_0$ : Credit controls have no significant effect on sustainable financial prudence in public universities in Kenya.
- ii.  $H_A$ : Credit controls have significant effect on sustainable financial prudence in public universities in Kenya.
- iii. Results of t-test statistics ( $t = 9.068$ ;  $p < 0.05$ )
- iv. The p-value was found to be less than the acceptable threshold of 0.05
- v. Verdict: The null hypothesis ( $H_0$ ) was rejected.

## VII. Conclusions

According to the findings of the study, it was evident that public universities in Kenya have a credit policy. The study concluded that the essence of the credit policy is to facilitate assessment of customers that include students and entities that procure goods and services from these institutions of higher education. In order to ensure that there is sustainable financial prudence in public universities, the study concluded that it is expedient for these institutions to have strong, effective and efficient credit controls. Such credit controls include rating prospective customers using what is referred to as the 5Cs of credit rating which include credit history, capacity, collateral, capital lastly condition.

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