Effect of Accounts Receivable Management on Financial Performance of Chartered Public Universities in Kenya

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ABSTRACT

Accounts receivable refer to the payments expected by an organization in the foreseeable future. Accounts receivable management plays an integral part in the financial performance of higher learning institutions. With several public universities experiencing no or delayed payments from the respective receivable accounts, such institutions have been characterized with financial constraints, struggling to meet their immediate obligations. From reduced government capitation, lack of the module two students (Self-Sponsored), and students' non-compliance on fee payment policy, public universities in Kenya continue to experience poor financial performance due to inefficiency of their accounts receivable management. This study sought to examine the effect of accounts receivable management on the financial performance of chartered public universities in Kenya. The general and specific objective was to determine the effect of accounts receivable management on the financial performance of chartered public universities in Kenya. The study used the Cash Conversion Cycle (CCC) theory. Descriptive and inferential research designs were applied to analyze data. The target population was all the 31 chartered public universities in Kenya, and as such, the census survey method was adopted to collect data. Secondary panel data was extracted from the respective institutions' audited annual reports for 2017, 2018, and 2019. The SPSS Version 25 was applied to analyze descriptive and inferential statistics. The study found that accounts receivable management had an indirect and significant effect on the financial performance of chartered public universities in Kenya (p= 0.000, β= -0.875). The study concluded that accounts receivable management has a substantial effect on the financial performance of chartered public universities in Kenya. The study recommended that in line with the IFRS 5 and IAS 1, respective university managements should develop optimal debts management frameworks to guide their financial management operations to realize sustainable financial performance both in the short and long runs.

Key Words: *Accounts Receivable Management, Financial Performance*

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1.0 Introduction

The role of current assets in enhancing the financial efficiency of an organization cannot go unnoticed. Accounts receivable management form part of the current assets, which significantly influences the financial performance of any organization, be it for-profit or not-for-profit. As observed by Geiger (2010), the financial crisis in institutions of higher learning in the United States of America has raised the alarm on the possible closure of such institutions. This occurrence could jeopardize learning activities.In Africa, there have been several conferences to discuss the status of university education in the continent due to the financial unsustainability and instability characterizing the institutions of higher learning. As observed by Zeleza (2019), the financial challenges facing universities in the African continent are occasioned by local contexts that are rooted in socio-economic inequalities and unbalanced levels of development, unmatched prevailing ideologies and political cultures, institutional incapacities and histories, and a confluence of other internal and external forces.

In Kenya, chartered public universities, in particular, have registered poor financial performance in the recent past, pegging questions on their ability to sustain their operations. Financial crises experienced across chartered public universities in Kenya have negatively impacted institutional operations and raised concerns about their long-term sustainability (Munene, 2019). However, the continued financial instability in the public institutions of higher learning has had a double impulse, that is, at the institutional level regarding challenges on financial governance and at the national level, which concerns the policy changes affecting the entire system. Due to this development, the need for adequate financial management to arrest the ongoing financial difficulties experienced in chartered public universities has emerged as an area of interest to the university education stakeholders. Adequate management of the accounts receivable ensures an organization has reliable cash inflows to meet its obligations as and when they arise. For public universities in Kenya to overcome their current financial crises, there is an urgent need for such institutions to restructure their receivables and adopt policies that will guarantee optimal collection from such accounts. Continued delays and, in certain instances, failure to collect receivables has significantly crippled the financial operations of chartered public universities in Kenya.

1.1 Concept of Accounts Receivable Management

According to Yator (2018), accounts receivable refers to the amount of money owed to an institution by its stakeholders from goods and services offered but not yet fully paid for. Thus, accounts receivable management entail procedures implemented to oversee successful operations of this account. The accounts receivable appear on an organization's balance sheet under the current assets. The concept of current assets refers to the short-term resources that are expected to be changed or converted to cash within a timeline not exceeding a year (Raza et al., 2015). In this study, accounts receivable management was measured by Average Collection Period (ACP), which indicates the number of days an organization takes to collect money owed to it from its debtors or customers (Pakdel&Ashrafi, 2019). The study examined the effect of accounts receivable management on the financial performance of chartered public universities in Kenya.

Accounts receivable to a public university could include; HELB loans, student fees, and other fees such as conference facility hiring charges (Otieno, 2018). The ability of the public universities to collect money from these accounts within the shortest time possible has a substantial effect on their financial performance, as they will enjoy surpluses to meet their obligations. The study, therefore, assessed the impact of the average collection period as a measure of accounts receivable

management on Kenyan chartered public universities' financial performance. According to Qazi *et al*. (2011), accounts receivable management is essential in the financial analysis of any organization, be it for-profit or not-for-profit. Being a current asset, accounts receivable management measures an organization's ability to meet the short-term obligations from this account without incurring additional cash flow.

1.2 Concept of Financial Performance

Financial performance indicates the performance of an organization quantified in monetary terms and reveals the general health in sustaining its operations (Gartenberg, Prat, &Serafeim, 2019). Financial performance is ascertained by analyzing an organization's financial statements and records for a given period. It requires a well-developed financial management plan to achieve the organization's underlying objectives. In the various areas of strategic management and business, scholars have concentrated their works on the traditional indicators of financial performance. According to Bulle (2017), the traditional indicator of organizational success has often been measured through the various financial matrices and indicators. However, Bulle (2017) observed that the perennial dilemma in achieving adequate financial management was the trade-off between profitability, liquidity, and solvency. In assessing the financial performance of the chartered public universities in Kenya, this study quantified the accumulated surpluses and deficit balances appearing on the institutions' financial statements to ascertain whether their financial performance is adequate or inadequate. According to Trincu-Drăguşin, Mihai, & Blanco-Pascual (2016), a surplus indicated a positive and improvement in an institution's financial health. In contrast, a deficit signified a negative and deteriorating financial viability of public universities in Kenya. Annual budget cuts and reduction in funding to public universities in Kenya are factors that have significantly affected the financial strength of chartered public universities in Kenya (Munene, 2019). For instance, due to the current COVID-19 pandemic, the government reduced higher education funding by 26% as a cost-cutting mechanism to help in the economic recovery of the aftermaths of the pandemic in the 2021/2022 financial year, a move expected to worsen further the financial crisis in Kenyan chartered public universities (Africa Edition, 2021).

1.3 Statement of the Problem

Students' fee collection account is a key component of the accounts receivable that significantly contributes to the working capital of chartered public universities in Kenya. When students pay their fees on time, public universities get enough money to meet their operational costs, thus experiencing the optimal financial performance. However, according to Othman et al. (2012), 30% of public university students face difficulties paying their university education fees, while another 40% delay their fee payments until the end of semester final examinations. Public universities rely on government capitation to finance their operations. Wachira (2018) observed that adequate government capitation enhances the financial performances of such institutions as they become more liquid in meeting their obligations. However, the current government capitation to public universities covers only 57% of the students' learning costs instead of the recommended 80%, leaving universities struggling to fund the 23% deficit (Africa Edition, 2021). Reduction in direct government funding to public universities in Kenya and student fees collection have negatively affected the accounts receivable of public universities in Kenya, thus resulting in poor financial performance.

According to Adam and Caroline (2018), Small-Medium Enterprises continue to experience inadequate financial outcomes due to their inability to adequately manage their accounts

receivable. The failure by such organizations to formulate relevant policies to ensure their debtors honor the debts in time has resulted in their financial crisis, making the SMEs operate on deficits. Tibbs&Munene (2018) revealed that poor financial performance of government institutions was occasioned by inadequacy in the accounts receivable management, calling on the management of Embu Water and Sanitation Inc. to implement adequate debt-collection policy.Further, Njeru, Memba, &Mbula, (2016) stated that venture capitalists experience poor financial performance due to shortage characterizing their accounts receivable. With the growing interest in understanding the role of accounts receivable management on organizational performance, this paper sought to determine the effect of accounts receivable management on the financial performance of chartered public universities in Kenya.

1.4 Objectives

The general and specific objective of the study was to determine the effect of accounts receivable management on financial performance of chartered public universities in Kenya.

2.0 Literature Review

2.1 Theoretical Framework

A theory refers to a tried, tested, and verified ideology aimed at explaining and helping the general understanding of the relationship between the underlying phenomena (Eden & Ackermann, 2018). The cash conversion cycle theory was used to describe the underlying relationship between accounts receivable and financial performance.

2.1.1 The Cash Conversion Cycle (CCC) Theory

The Cash Conversion Cycle theory was developed by Verlyn R and Eugene L in the 1980s and is a working capital management theory that enables firms to optimize their financial management operations (Savino, 2020). The CCC theory is a theoretical and financial approach that explains the duration taken by an organization to convert its current assets such as accounts receivable into liquid cash. As such, the theory is concerned with the annual days and frequency taken by an institution to turn its liquid assets and cash equivalents into liquid cash necessary in meeting operational costs and other obligations. The CCC theory was significant in this study. It helped in understanding the efficiency of chartered public universities in collecting their accounts receivable such as student fees, within the shortest time possible to enable the universities to meet their operational costs without any penalties. The theory further measures how much time it takes an institution to collect its accounts receivable and pay up its obligations without incurring any penalties, such as in the form of delayed vendor payments. Public universities with shorter CCC periods exhibited through high cash ratios were considered efficient and experienced optimal financial performance. In contrast, public universities with more extended CCC periods were deemed inefficient and characterized by being financially unstable (Oseifuah&Gyekye, 2017).

According to Chang (2018), cash conversion cycle theory indicates the theoretical amount of time an organization takes to send and receive cash tied up in working capital, that is, current assets. The theory focuses on explaining how money tied up in working capital can quickly be converted into liquid cash to enable the success of meeting an organization's operational costs. The CCC theory was relevant to this research since it helped examine the frequency these chartered public universities spend their available cash and convert money ostensibly held in other components of the working capital management such as inventory, receivables, and cash equivalents into liquid cash. The theory was thus, helpful in explaining and understanding the impact of accounts

receivable management and financial performance variables. According to the cash conversion cycle theory, organizations that can convert their current assets into liquid cash quickly are considered financially healthy compared to those that struggle to reclaim their assets into cash. As such, this theory recommended that organizations should aim at holding assets that are quickly convertible into cash to enable them to meet their arising financial obligations and costs. Though relevant in not-for-profit institutions such as public universities, this theory fails to consider certain factors beyond any institution's control when converting its assets into liquid cash such as students' industrial actions in institutions of higher learning and poverty.

One of the chartered public universities' current assets is the accounts receivable, which essentially comprises the students' fee collection accounts. Given that most students in these institutions come from unfavorable financial backgrounds (poverty), as observed by Othman et al. (2012), public universities may have difficulties converting such accounts receivable into liquid cash. Students differ in their studies when it appears they can no longer pay the fees due in time. In such instances, the university suffers from uncollectible revenues, which would have otherwise helped them meet their financial obligations. The inability of students to pay fees occasioned by natural factors such as poverty was one of the external factors that inhibited 100% fees collection by chartered public universities in Kenya and their capacity to convert such assets into liquid cash, hence continuing to remain financially strapped. The cash conversion cycle theory should develop a concept on how organizations can still easily convert their assets into liquid cash even in the light of underlying unfavorable circumstances (external events or factors) to avoid financial crises.

2.2 Empirical Review

Adam and Caroline (2018) studied the relationship between accounts receivable management and financial performance of Small Medium Enterprises in Mogadishu, Somalia. The study employed the use of a survey research method that enabled quantitative data collection. The target population was 102 small-medium enterprises and applied probability and non-probability sampling techniques, which generated 81 firms. Inferential and descriptive statistics that involve computation of correlation coefficient and Pearson correlation were utilized to analyze collected data. The study revealed an underlying positive effect of accounts receivable on SMEs' financial performance in Mogadishu. However, the study failed to identify the specific measurements used in measuring accounts receivable, which the current study addressed by measuring accounts receivable through the average collection period.

Tibbs and Munene (2018) researched the influence of accounts receivable on the financial performance of Embu Water and Sanitation Ltd. Operational motive, Cash conversion cycle, and transaction costs theories were used to explain the relevance of variables to the study. Secondary data was retrieved from the company's financial reports, which were available with the corporation's finance and accounts department. Data analysis was done through inferential and descriptive statistics that were presented in tables and figures formats. This study found that the average collection period and current ratio have a significant positive effect on equities, indicating that a positive change in the debtor's payment period resulted in the company's improved financial performance. This study, however, was done on a single public entity whose findings could not be used in generalization.

Njeru, Memba, and Mbula (2016) researched the effect of accounts receivable management on the financial performance of government venture capital organizations in Kenya. The target population comprised all of Kenya's 24 venture-capitalist firms funded by the national government

and used the census survey method. Primary data on the independent variables were collected through a questionnaire, while a record investigation guideline was used to collect the dependent variable's secondary data. Both inferential and descriptive statistics, including regression, ANOVA, and correlation coefficient, were computed through the SPSS software to explain the relationship underlying study variables. The study pointed to a significant direct correlation between accounts receivable and the financial performance of Kenyan venture-capitalist enterprises. While measuring accounts receivable, this research failed to consider the impact of bad debts on accounts receivable, which significantly affects an institution's financial position, especially public organizations.

3.0 Research Methodology

Research design is a technique adopted when conducting research. The study adopted both descriptive and inferential research designs. The descriptive research method was selected since it enables a researcher to generalize research findings (Bairagi&Munot, 2019). The inferential research design was adopted in this study to help in measuring the research objective. The study population comprised all the 31 chartered public universities in Kenya, and as such, a census strategy was applied. The study used secondary data collected from the audited annual financial statements of respective universities, accessed from the Kenyan Ministry of Education, State Department for University Education. The data related to 2016/2017, 2017/2018, and 2018/2019 financial periods which was treated as panel data. The panel data as such, considered the time series effect.

The financial information collected from the statements included accounts receivable balances, total credit and promised contributions, surpluses, and deficits. Average Collection Period (ACP) was used to measure accounts receivable management whereas surplus and deficits were used to measure financial performance of the analyzed institutions. Institutional factors such as students' industrial actions that could affect the ACP of these institutions were however, ignored in this study since no empirical statistics from the reviewed audited financial statements contained such information. Data collected were analyzed through the Statistical Package for Social Sciences (SPSS) version 25, and results were presented in tables and figures. The study used a univariate regression analysis model to determine the relationship between the underlying variables. The following simple regression analysis model was used in the study;

$Log_{10}Y= \beta_0+ \beta_1 X_t + \varepsilon$

Where;

$Log_{10}Y$= Represents Financial Performance.

β_0= Free Term of the Equation, the y-intercept (constant term)

β_1= Correlation coefficient (betas) characterizing independent variable and measure the elasticity of Y due to change in X

X = Accounts Receivable

T= Financial Year

ε = Error Term, representing other factors affecting financial performance not included in the model.

The hypothesis was tested at 95% confidence level (5% significance level), and diagnostic tests were conducted on the regression model assumptions entailing; normality, multicollinearity, and independence of errors. The study observed all the necessary ethical research guidelines, including; obtaining a research license from the National Commission for Science, Technology, and Innovation (NACOSTI), obtaining a data collection letter from the Multimedia University of Kenya, and observing research data confidentiality.

4.0 Data Analysis Results

4.1 Effect of Accounts Receivable Management on Financial Performance of Chartered Public Universities in Kenya

From table 1, the correlation between accounts receivable management and financial performance of the chartered public universities in Kenya is represented by the R-Square value. The R-square for the accounts receivable management explaining the financial performance of these institutions was at 0.765. This shows that accounts receivable management accounted for 76.5% of the financial performance of chartered public universities in Kenya. From table 1, the accounts receivable management had an inverse correlation with the financial performance. This negative correlation meant that an increase in the Average Collection Period of chartered public universities in Kenya resulted in a decline in the financial performance of these institutions, exhibited by high deficit balances whereas a shorter ACP resulted in the improved financial performance of these institutions, explained through their surpluses.

Table 1: Model Summary for Accounts Receivable and Financial Performance

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2 Change	Sig. F	Sig. F Change
1	-.875[a]	.765	.763	3.90023	.765	296.472	1	91	0.000	.000

a. Predictors: (Constant), Accounts Receivable Management

Source: Research Data (2021)

Furthermore, as described in table 2, the F-calculated (296.472) was higher than the F-critical (3.95), thus pointing to the fitness of the regression model used in the study**.** Also, the p-value (0.000) was less than the required considerable level of 0.05. These statistics show that accounts receivable management was significant in explaining the financial performance of the chartered public universities in Kenya. Also, the model used was reliable and best fit that can be relied upon in determining the effect of accounts receivable management on financial performance of chartered public universities in Kenya, as explained by the F-statistics in table 2.

Table 2: ANOVA for Accounts Receivable Management and Financial Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4509.875	1	4509.875	296.472	.000[b]
	Residual	1384.273	91	15.212		
	Total	5894.147	92			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Accounts Receivable Management

Source: Research Data (2021)

From table 3, the financial performance of chartered public universities in Kenya will have an index of 15.291 when the accounts receivable management is held constant in a particular financial year. Moreover, the model's beta coefficient was pegged at -0.875 in explaining the relationship between accounts receivable management and financial performance of chartered public universities in Kenya. Accounts receivable management and financial performance as such had a significant inverse relationship. The beta coefficient in Table 3 implies that an increase in the accounts receivable management by one unit resulted in the 0.875 units decrease in the financial performance of chartered public universities in Kenya as observed in the high deficits. Alternatively, a unit decrease in the accounts receivable management resulted in the 0.875 units increase in the financial performance of chartered public universities in Kenya, explained through the increase in surpluses.

Moreover, as can be observed, the model's p-value is 0.000, which is significant at a 95% confidence level since the value is less than the 0.05 required significance level. Furthermore, the t-calculated (16.764) was more than the observed t-critical (6.314)**.** Consistent with the study model, these findings, as such, revealed an underlying significant effect of accounts receivable management on financial performance of chartered public universities in Kenya. The statistics in table 3 are consistent with the findings of Adam and Caroline (2018) that revealed a significant effect of accounts receivable management on Small-Medium Enterprises" financial performance in Mogadishu. Therefore, the univariate regression model for the effect of accounts receivable management on financial performance of chartered public universities in Kenya is given below as;

$\text{Log}_{10}Y = B_0 + B_1 x_t + \varepsilon$

$\text{Log}_{10}Y = 15.291 - 0.875X$

Where; $\text{Log}_{10}Y$= Financial Performance

X= Accounts Receivable

T= Financial Year

Table 3: Coefficients for Accounts Receivable Management and Financial Performance

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations		
		B	Std. Error	Beta	t	Sig.		Partial	Part
1	(Constant)	15.291	.912		16.764	.000			
	Accounts Receivable	-.269	.016	-.875	-17.218	.000	20	-.820	-.820

a. *Dependent Variable: Financial Performance*
Source: Research Data (2021)

5.0 Conclusion and Recommendation

5.1 Conclusion

The findings showed that accounts receivable management influence financial performance of chartered public universities in Kenya. The study as such, concluded that accounts receivable management had an inverse and significant effect on the financial performance of chartered public universities in Kenya. Therefore, the shorter the average collection period, the more adequate financial performance experienced by chartered public universities in Kenya, exhibited through their surpluses. Chartered public universities with more extended average collection periods experienced poor financial performance explained in their respective deficits due to the inability to meet their obligations.

5.2 Recommendations

5.2.1 Management Recommendations

Since the study found that accounts receivable management had an inverse effect on the financial performance of chartered public universities in Kenya, this analysis recommends that respective managements should develop sustainable debt collection policies that will achieve prompt debt collection within the shortest time possible, such as recommending the ideal 30 days to their debtors. A negative correlation depicts a substantial impact on the dependent variable. As such, chartered public universities in Kenya should lower their average collection periods to experience better and improved financial performance.

5.2.2 Policy Recommendations

In Kenya, universities are regulated by the Commission for Universities Education (CUE). The commission concerns with the development of policies affecting the successful operations of such institutions to achieve synergies. With a strong negative correlation of accounts receivable management, CUE should develop sound policies to optimally manage chartered public universities' accounts receivable and cash plus cash equivalents.

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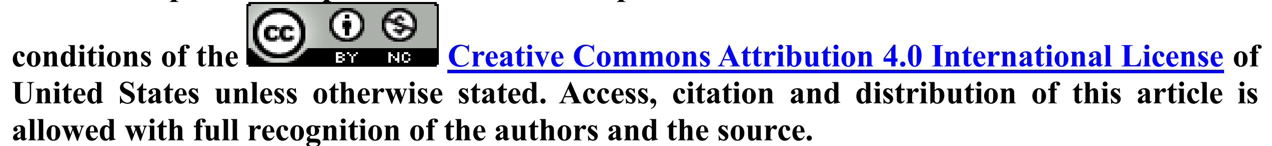
This is an open-access peer reviewed article published and distributed under the terms and conditions of the  **Creative Commons Attribution 4.0 International License of United States unless otherwise stated. Access, citation and distribution of this article is allowed with full recognition of the authors and the source.**