Implementation of Financial Resource Mobilisation Programmes to Increase Financial Sustainability in Zimbabwe's Public Universities: A Panacea or a Pipe Dream?

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Abstract

The study sought to examine how innovative financial resource mobilisation projects/programmes enhanced the financial sustainability of the public universities of Zimbabwe. A combination of correlation and survey research design informed by the positivist research philosophy were employed in the study. The unit of analysis was confined to six public universities in Zimbabwe from which a sample of 229 respondents were selected through systematic random sampling from an accessible population of 1 450 employees in the respective revenue generating units and participated in the Rensis Likert scale questionnaire survey. Quantitative data were validated using tests for normality, kurtosis and skewness, homoscedasticity, multicollinearity, and prior power of the entire model of the study. The test results fell within acceptable values for correlation analysis and multiple regression analysis. Quantitative data were analysed using descriptive statistics, and inferential statistics. The Overall regression results showed that right-tailed, was $F(3,164) = 12.7208$, p-value = 0.000. Since p-value < α (0.05), H0 (the null hypothesis): Innovative financial resource mobilisation has no significant effect on the financial sustainability of Zimbabwe's public universities, was rejected and the alternate hypothesis accepted. It was deduced that innovative financial resource mobilisation enhanced the financial sustainability of the public universities of Zimbabwe. Therefore, the more the public universities implemented innovative financial resource mobilisation programmes, the more the financial sustainability. It was recommended that lucrative financial resource mobilisation strategies like 'grant-winning' research and extension, provision of consultancy and advisory services, sale of merchandise in strategic business units, bond issues financing, endowment financing, and foundations be implemented to maintain the financial sustainability of the public universities of Zimbabwe.
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Key words: designing, lucrative, innovative, financial resource mobilisation programmes, lucrative, financial sustainability, public university

Introduction

Public universities throughout the world play a pivotal role in economic development through human capital development, and the promotion of research and innovation. However, they grapple with funding deficits which undermine their academic excellence and financial sustainability (Chinyoka & Mutambara, 2020). The funding gap has been attributed to the high and ever rising costs of operating the institutions and cuts in government financial support to the institutions as the overburdened governments prioritise other social sectors like health and defence in sharing the limited budgetary slice to cope with the prevailing economic challenges.

The institutions have resorted to innovative financial resource mobilisation programmes to bridge the financing gap and remain afloat (Asian Development Bank, 2009; The World Bank, 2010 in Chihombori, 2013; Freeman, in Teixeira & Dill, 2011; Browne & Shen, 2017; Karuhanga, 2017; Nganga, 2021). Efforts to bridge the financing gap through innovative mobilisation of financial resources had not been successful in increasing the financial sustainability of the majority of the universities worldwide.

In Zimbabwe, the public universities attempted to generate own source revenues, but the revenue was too insignificant to maintain their financial sustainability. Empirical research showed that Zimbabwe's universities still relied on government subsidies of up to 80 percent for their capital and recurrent expenditures and mobilised 15 percent from the fees and 5% from other sources (Madzimure, 2016). A MHTESTED and World Bank (2020) study showed that own-source revenues accounted for between 4 and 15 percent of the total income of Zimbabwe's public universities.

Own Source Revenues as Share of Total Revenue at the Institutional Level in Zimbabwe's Public Universities, 2018

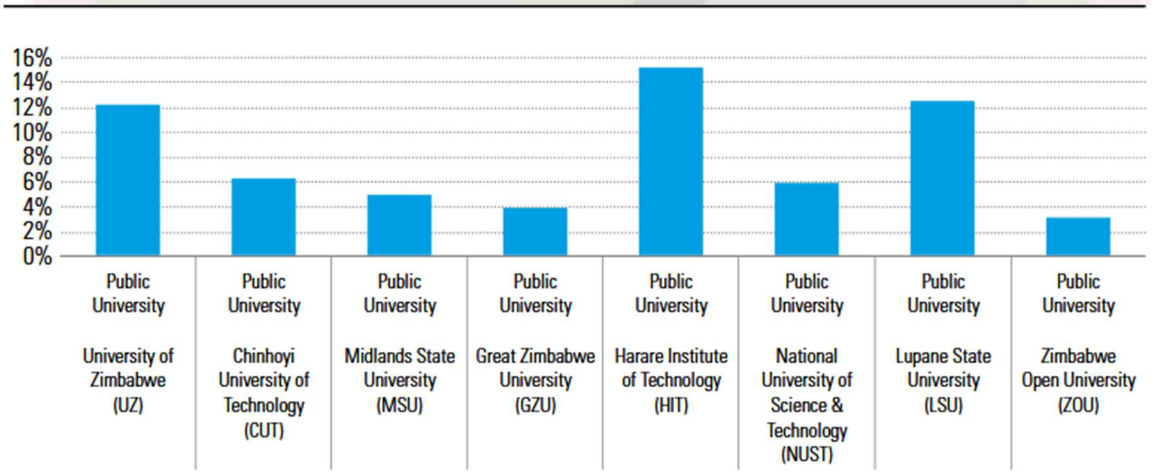

Figure 1: Own Source Revenue as a Share of Total Revenue, 2018
Source: World Bank Survey (2018)

Figure 1 showed that in 2018, HIT generated the largest share of own-source revenue of 15 percent relative to total revenue followed by LSU and UZ that generated 13 percent and 12 percent own source revenue, respectively.

The universities' failure to maintain financial sustainability through innovative mobilisation of financial resources had dire consequences on the operations of the institutions. The procurement of library books and basic laboratory equipment was hampered while new appointments were frozen and research grants slashed (Akintoye, 2008). Johnstone and Marcucci (2007) observed that inadequate funding in higher education culminated in shortage of lecture theatre space for students, demoralised faculty, little time and support for faculty research, and a decline in the quality of learning and teaching and research. Bok (2017) contended that failure to match appropriations in tandem with enrolment growth reduced learning time and lowered graduation rates.

The research problem emanated from research by MHTEISTED and the World Bank (2020), which showed that public universities of Zimbabwe generate between 4 percent and 15 percent own source revenue through innovative resource mobilisation programmes. In concurrence, Madzimure (2016) observed that the public universities of Zimbabwe generate 15 percent of their revenue from fees and 5 percent from other sources while still heavily dependent on the financial grants from the government which contribute 80 percent of their recurrent expenditure. Chinyoka and Mutambara (2020) carried out a study which showed that the situation at the state universities of Zimbabwe was unbearable because of rising inflation, worsening economic and political challenges for close to three decades. It was recommended that the Zimbabwean universities be given the autonomy to determine their own fees and activities (Chinyoka & Mutambara, 2020). Innovative, transnational funding partnerships and other sources of support for continuing growth, including private capital, were recommended for implementation in the Zimbabwean universities (Chinyoka & Mutambara, 2020). However, the Chinyoka and Mutambara's (2020) study lacked quantifiable evidence to show the extent to which the legislation, macro-economic and political environment, reduction in government support and diminishing grant funding negatively impacted on revenue generation among state universities in Zimbabwe. This necessitated the current study, in which the variables were clearly operationalised and their effect on financial sustainability was determined using the Pearson's correlation coefficient and multiple regression analysis. Hypotheses were formulated and tested to give a more objective picture. Failure to address the financial sustainability-related issues has dire consequences which will impact negatively on the operations of the universities thereby compromising their capacity to deliver their mandate of human capital development and fulfilment of the Education 5.0 mission of teaching, research, community engagement, industrialisation, and modernisation. A paucity in empirical research guiding Zimbabwe's public universities' designing and implementation of lucrative innovative financial resource mobilisation programmes to attain financial sustainability gave rise to this study.

The main purpose of conducting the study was to address financial sustainability issues that might detract the efforts to enhance the financial sustainability of public universities of Zimbabwe through innovative mobilisation of financial resources.

The study was guided by two research objectives, namely, to determine the relationship between innovative financial resource mobilisation and the financial sustainability of Zimbabwe's public universities; and identify the lucrative financial resource mobilisation programmes implemented by Zimbabwe's public universities to increase financial sustainability.

Guided by the above objectives, the study sought to address the following two research questions:

1. What is the effect of innovative financial resource mobilisation on the financial sustainability of Zimbabwe's public universities?
2. What lucrative financial resource mobilisation programmes are implemented in public universities to increase financial sustainability?

The significance of the study was premised on the view that higher education sector is the pillar of a nation's socio-economic development. Financing of education in public universities is a cost to both the government which hires lecturers and administrative/support staff and provides for tuition and general operations and the parents who shoulder the expenditures on development of physical facilities and infrastructure like lecture halls, libraries, laboratories, dorms, grounds, and ablution facilities. Public universities must therefore endeavour to mobilise extra resources to be self-supportive. The present study was hoped to go a long way in benefitting three clusters of entities, namely, policy makers, practitioners, and scholars. Policy makers in the education sector, particularly higher education, in both private and public institutions are hoped to find the findings of this study crucial in enabling them formulate policies geared towards enabling greater financial sustainability. Top managers and other decision makers specifically in public tertiary institutions are hoped to find this study important when formulating strategies of addressing challenges associated with financial sustainability.

The researcher sought to test the following two hypotheses:

H_1: Innovative financial resource mobilisation has a significant effect on the financial sustainability of Zimbabwe's public universities.

H_0: Innovative financial resource mobilisation has no significant effect on the financial sustainability of Zimbabwe's public universities.

The conceptual framework of the study comprised one independent variable, namely, innovative financial resource mobilisation, and one dependent variable, namely, financial sustainability. The view was that embarking on innovative financial resource mobilisation programmes would result in the attainment of financial sustainability in the public universities of Zimbabwe. On one hand, six factors would drive innovative financial resource mobilisation in the universities. In other words, effective innovative financial resource mobilisation would be a function of the interplay of six factors, namely, strategic planning, organisational structure, financial administration, cost management, institutional staff support for resource mobilisation purposes, and own income generation, which if effectively implemented would result in the attainment of financial sustainability in the public universities of Zimbabwe. On the other hand, financial sustainability would be in terms of, high liquidity ratios, high activity ratios, high profitability ratios, and solvency in the public universities. It was hypothesised that there is a significant relationship between innovative financial resource mobilisation and the financial sustainability of the public universities of Zimbabwe. A null hypothesis was also formulated and tested. Effective financial resource mobilisation was conceptualised in terms of six determinants, namely, organisational structure, financial and strategic planning, own income generation, cost management, institutional staff support for resource mobilisation purposes, and sound administration and finance. The influence of financial resource mobilisation on the financial sustainability of public universities of Zimbabwe was tested based on these six factors. Kathomi, Njeru and Ocharo (2022) measured financial sustainability using the current ratio, in their study. In the contrast, in the current study, financial sustainability of public universities of Zimbabwe would be measured using 5-point Likert scale.

The researcher adopted the Resource Mobilisation Theory as the key theory driving the study while the Resource Dependency Theory played a subsidiary role. The Resource Mobilisation Theory (RMT) or Resource Mobilisation Approach (RMA) was developed during the 1970s. The rationale was to understand the emergence, significance, and effects of the social movements of the 1960s (Jenkins, 1983; McAdam, McCarthy & Zald, 1988; Edwards & McCarthy, 2004). The proponents of the theory placed resources at the centre of the analysis of social movements. They underscored the movement member's capacity to acquire resources and mobilise people towards attaining the movement's goals (McCarthy & Zald, 1977). This is the same stance held by the author of this study that innovative financial resource mobilisation was pivotal in maintaining the financial sustainability of Zimbabwe's public universities.

The advocates of the Resource Mobilisation Theory further contended that organisations did not emerge out of the blue, but required resource mobilisation to thrive (Lin, Hwang & Becker, 2003; Chelangat, 2018). Successful organisations were viewed by the advocates of the Resource Mobilisation Theory as those capable of generating resources that supported financial resource mobilisation activities (McCarthy & Zald, 1977; Chelangat, 2018). In the same vein, the author of this study shared the same view that underscored supplementary revenue generated through innovative financial resource mobilisation programmes as a crucial aspect for the survival of Zimbabwe's public universities.

The study was also framed within the postulates of the Resource Dependency Theory. Pfeffer (1978) founded the theory. The proponents of RDT contended that even though all organisations had internal resources, most of them were not self-sufficient and therefore, depended on external resources to support their operations and aspirations (Gulati & Sytch, 2007; Odundo & Rambo, 2013). However, in this study, the researcher noted that despite Zimbabwe's public universities' heavy reliance on financial support from the government, there was need for them to mobilise internal financial resources for them to maintain financial sustainability.

Methodology

The positivist philosophical paradigm was employed in the study. The research adopted the quantitative research methodology. A combination of correlational and survey research design was utilised in the study. The target population for this study was 15 000 employees in the public universities of Zimbabwe. The target population comprised 1 450 respondents drawn from the units and departments involved in revenue generation in the public Universities of Zimbabwe. Systematic random sampling technique was applied in sample selection. A sample size of 229 respondents was determined and employed in the study. The research tools employed in the study were self-administered Rensis Likert scale questionnaire, and document analysis checklist. A combination of survey ad correlational research designs was employed in the study.

Descriptive statistics, including frequencies and percentages, mean and standard deviation, were used in quantitative data analysis. Both regression and correlation analysis were used to analyse the existing relationship between the six independent variables, namely, strategic planning, organisational structure, cost management, financial administration, institutional support, and own income generation programmes and one dependent variable of financial sustainability. In addition, the study sought to establish why public universities of Zimbabwe failed to increase their financial sustainability through innovative mobilisation of financial resources. Furthermore, the study sought to establish the consequences of the public universities of Zimbabwe's failure to increase their financial sustainability through innovative mobilisation of financial resources. The results were shown in form of graphs, and tables. Data validation was carried out using several tests, namely, normality, kurtosis and skewness, homoscedasticity, multicollinearity test and Cronbach's alpha test on all the variables of the study.

Results and discussion

Six variables were tested for their effect on the financial sustainability of the public universities of Zimbabwe (see Table 3.1). The analysis of correlation results showed that the all the six predictor variables had a positive association with financial sustainability, and hence included in the analysis. There was a weak, positive, and significant correlation between strategic planning and the financial sustainability of the public universities of Zimbabwe (r = 0.11; p-value <0.05). The findings resonated with those of Majaha's (2015) study which revealed a positive relationship between strategic planning practices and financial performance although the relationship was weak and not significant. The Majaha's (2015) study further showed that all the three constituent components of strategic planning, namely, strategic planning processes, use of strategic analysis tools, and emphasis on key strategic issued showed a positive and significant relationship with non-financial performance.

The study showed a moderately weak, positive, and significant correlation between organisational structure and the financial sustainability of the public universities of Zimbabwe (r = 0.49; p-value <0.05).

There was a weak, positive, and significant correlation between financial administration and the financial sustainability of the public universities of Zimbabwe (r = 0.13; p-value <0.05). The findings of the current study underscored the importance of effective financial administration and management to the financial sustainability of an organisation or programme cannot be overemphasised. The World Bank (1999:9) indicated that financial management is acritical ingredient to project success and that sound project financial management provides essential information needed by those who manage, implement, and supervise projects, including government oversight agencies and financing institutions. Sound project financial management also provides the comfort needed by the borrower country, lender, and donor community that funds have been used efficiently and for the purpose intended (World Bank, 1999:9). Additionally, sound project financial management would serve as a deterrent measure to fraud and corruption, since it provides internal control and the ability to quickly identify unusual occurrences and deviations (World Bank, 1999:9).

In addition, there was a moderately weak, positive, and significant correlation between cost management and the financial sustainability of the public universities of Zimbabwe (r = 0.45; p-value <0.05). There was a moderately weak, positive, and significant correlation between institutional support and the financial sustainability of the public universities of Zimbabwe (r = 0.3; p-value <0.05). Furthermore, there was a weak, positive, and significant correlation between own income generation and the financial sustainability of the public universities of Zimbabwe (r = 0.16; p-value <0.05).

Table 3.1: Correlation analysis

	Financial Sustainability	*Strategic Planning*	*Organisational Structure*	*Financial Administration*	*Cost Management*	*Institutional Support*	*Own Income Generation*
Financial Sustainability	1.0						
Strategic Planning	0.11	1.00					
Organisational Structure	0.49	0.37	1.00				
Financial Administration	0.13	-0.01	0.15	1.00			
Cost Management	0.45	0.46	0.56	0.00	1.00		
Institutional Support	0.30	0.27	0.35	-0.01	0.43	1.00	

Own Income Generation	0.16	0.14	0.26	-0.07	0.11	0.15	1.00

The correlation results in Table 3.1 indicated that strategic planning, organisational structure, financial administration, cost management, institutional support, and own income generation were determinants which positively correlated with the financial sustainability of the public universities of Zimbabwe at 95 percent confidence level.

Summary of Overall Fit

R-Squared:	$r^2 = 0.3216$
Adjusted R-Squared:	$r^2_{adj} = 0.2963$
Residual Standard Error:	2.7624 on 161 degrees of freedom.
Overall F-statistic:	12.7208 on 6 and 161 degrees of freedom.
Overall p-value:	0

Figure 3.1: Summary of Overall Fit
Source: Researcher (2023) based on field research results

The analysis of the overall fit results in Figure 3.1 showed that the value of R square (R^2) was equal to 0.3216. This meant that 32.2 percent of the variance of Y was due to other factors that were not part of the model and those that were not focused on in the current research which could include the source of funding, management, and specific factors peculiar to the public universities of Zimbabwe. Thus, the public universities of Zimbabwe which incorporated the innovative financial resource mobilisation measures in their operations would see a moderate improvement in financial sustainability. The results showed that the coefficient of determination (Adjusted R square) value was 0.2963 implying that that the regression could explain up to 29.6 percent of the variation in the financial sustainability. The coefficient of multiple correlation (R) was equal to 0.552135. It meant that there was a moderate correlation between the predicted data (ŷ) and the observed data (y).

Multiple regression model coefficients

Coefficient Table Iteration 1 (adjusted R-squared = 0.296)

Predictor	**Coeff**	**Std Error**	**t-statistic**	**lower $t_{0.025}(161)$**	**upper $t_{0.975}(161)$**	**Stand Coeff**	**p-value**	**VIF**
B	8.630	2.686	3.213	3.325	13.935	0.000	0.002	
X_1	-0.181	0.072	-2.496	-0.324	-0.038	-0.186	0.014	1.317
X_2	0.261	0.068	3.861	0.128	0.394	0.323	0.000	1.663
X_3	0.094	0.077	1.227	-0.057	0.246	0.082	0.222	1.048
X_4	0.255	0.073	3.496	0.111	0.399	0.304	0.001	1.791
X_5	0.086	0.065	1.312	-0.043	0.214	0.096	0.191	1.273
X_6	0.070	0.075	0.931	-0.078	0.218	0.063	0.353	1.097

Source: Researcher (2023) based on field research data

The multiple regression model coefficients results showed that predictor variable X_1 (strategic planning) had a correlation coefficient of -0.18 implying a negative association with financial sustainability. Therefore, a unit increase in the independent variable of strategic planning would result in a significant unit decrease in the financial sustainability level in the public universities of Zimbabwe. Predictor variable X_2 (organisational structure) had a correlation coefficient of 0.26 which implied a positive impact on the financial sustainability of the public universities of Zimbabwe. Therefore, an increase in organisational structure practices would improve financial sustainability of the public universities of Zimbabwe significantly. Predictor variable X_4 (cost management) had a coefficient of 0.25 which implied that cost management had a positive impact on the financial sustainability of the public universities of Zimbabwe. Therefore, an increase in cost management practices would improve financial sustainability of the public universities of Zimbabwe significantly. Predictor variable X_3 (Financial administration) had a coefficient of 0.094 while predictor variable X_5 (institutional support) had a coefficient of 0.086 and predictor variable X_6 (own income generation), a coefficient of 0.07. This meant that the three independent variables (X_3, X_5 and X_6) were not significant as predictors for Y (financial sustainability).

The following regression model was fitted based on the results of the model coefficients: $Yi = 8.630 - 0.181X_1 + 0.261X_2 + 0.094X_3 + 0.255X_4 + 0.086X_5 + 0.07X_6$, whereby: Yi referred to financial sustainability, X_1 was the strategic planning, X_2 was the organisational structure, X_3 was the cost management, X_4 was the financial administration, X_5 was the institutional support, and X_6 was own income generation.

The multiple linear regression model in the study indicated that five independent variables (organisational structure, cost management, financial administration, institutional support, and own income generation) had positive coefficients which depicted a positive relationship with the financial sustainability of the public universities of Zimbabwe. The findings in the regression model showed that one unit change in strategic planning would result in 0.181 units decrease in the financial sustainability of the public universities of Zimbabwe while one unit change in organisational structure would result in 0.261 units increase in the financial sustainability of the public universities of Zimbabwe. One unit change in cost management would result in 0.255 units increase in the financial sustainability of the public universities of Zimbabwe whereas one unit change in financial administration would result in 0.29 units increase in the financial sustainability of the public universities of Zimbabwe. In addition, one unit change in institutional support would result in 0.086 unit increases in the financial sustainability of the public universities of Zimbabwe. Furthermore, one unit change in own income generation would result in 0.07 units increase in the financial sustainability of the public universities of Zimbabwe.

Additionally, from the analysis of results of the study, Y-intercept (b): two-tailed, T = 8.304, p-value = 0.000. Hence b was significantly different from zero.

Since the results showed a significance value of the F statistic of 0.000 which was smaller than 0.05, this meant that the predictors' variables, (that is, the relationship between strategic planning, organisational structure, financial administration, cost management, institutional support, own income generation), explained the variation in the dependent variable which was financial sustainability.

The model result of model fitness in study showed an F-statistic of $12.721>10.844$ and a p-value of $0.000<0.05$. This indicated that the model was fit for prediction at 95 percent confidence level. This meant that innovative financial resource mobilisation had a significant effect on the financial sustainability of the public universities of Zimbabwe.

The Overall regression results showed that right-tailed, was $F_{(3,164)} = 12.7208$, p-value = 0.000. Since p-value < α (0.05), H_0 (the null hypothesis): Innovative financial resource mobilisation has no significant effect on the financial sustainability of Zimbabwe's public universities, was rejected and the alternate hypothesis accepted. It was deduced that the innovative financial resource mobilisation enhanced the financial sustainability of the public universities of Zimbabwe. Therefore, the more the public universities implemented innovative financial resource mobilisation programmes, the more the financial sustainability.

Conclusion and recommendations

From the findings, it was deduced that the innovative financial resource mobilisation enhanced the financial sustainability of the public universities of Zimbabwe. Therefore, the more the public universities implemented innovative financial resource mobilisation programmes, the more the financial sustainability. It was also concluded that organisational structure, cost management, financial administration, institutional support, and own income generation positively affected the financial sustainability of the public universities of Zimbabwe. Therefore, the more the public universities implemented the organisational structure, cost management, financial administration, institutional support, and own income generation projects, the more the financial sustainability.

The study recommended that the management at the public universities of Zimbabwe highly prioritise lucrative financial resource mobilisation strategies like 'grant-winning' research and extension, provision of consultancy and advisory services, sale of merchandise in strategic business units be implemented to maintain financial sustainability. The management of the public universities of Zimbabwe needed to explore new financial resource mobilisation strategies like bonds issues financing, endowments financing, and foundations to improve the financial sustainability and ultimately the overall performance of the public universities of Zimbabwe.

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