Determinants of Financial Sustainability in Zimbabwe's Public Universities

Maxwell Chiwodza[1], Tichaona Mapolisa[1], Barbra Mbuyisa[1]

[1]Zimbabwe Open University

Corresponding Author's Email: max2011chi@gmail.com or chiwodzam@zou.ac.zw

Abstract

The study investigated how innovative financial resource mobilisation projects/programmes improved the financial sustainability of Zimbabwe's public universities. Correlation and survey research designs guided by positivist research theory were utilised. The unit of analysis was limited to six public universities in Zimbabwe. Two hundred and twenty-nine respondents were randomly chosen out of 1 450 employees in the separate revenue-generating units to participate 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 study model. The test findings were within acceptable limits. The multiple linear regression model results revealed that organisational structure, cost management, financial administration, institutional support, and own income generation all had positive coefficients, indicating a positive relationship with financial sustainability. A negative relationship was found between strategic planning and financial sustainability, implying that the more strategic planning procedures implemented, the worse the financial sustainability. The alternate hypothesis: Innovative financial resource mobilisation having no substantial effect on the financial sustainability of Zimbabwe's public universities, was accepted. It was concluded that the innovative financial resource mobilisation improved the financial sustainability of Zimbabwe's public universities.

Key words: financial sustainability, financial resource mobilisation projects/programmes, internally generated revenue, financing gap, strategy, income stream

Introduction

Public universities play a pivotal role in economic growth through human capital development, and 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 poor economic environment has arisen from the impact of the 2008 global recession that has severely crippled the financial health of many economies and organisations worldwide. The public universities operate in a business environment of stiff competition for clients, high accountability, and high expectations for academic excellence by stakeholders despite the financial challenges and their devastating impact on financial sustainability. The institutions have resorted to innovative financial resource mobilisation programmes to bridge the financing gap and remain afloat (Chihombori, 2013; Freeman, in Teixeira & Dill, 2011; Browne & Shen, 2017; Karuhanga,

2017; Nganga, 2021). The review of empirical research on higher education financing showed that most universities employed different strategies to maintain their financial sustainability.

American universities experienced cuts in state educational support per full-time equivalent student and attempted to remain afloat through various strategies (Table 1).

Table 1: Cuts in state appropriations, financing deficits, and strategies to maintain the financial sustainability of selected American universities

University	Fiscal year	State appropriations as percentage of the university's operating budget	Percentage financing deficit	Strategies to maintain financial sustainability
University of California	2001-2002	23	77	1. review of tuition fee increase 2. Indirect cost recovery 3. Endowment funding 4. Philanthropic gifts
	2012-2013	9	81	
New York University	2008-2014	11.1	88.9	Tuition fee increase

Source: Adapted from the University of California (2014), University of California Accountability Report (2015), and Mitchell, Leachman and Masterson (2016)

Table 1 shows that New York University experienced a decline of $1,154 per student from 11.1 per cent in state educational support per full-time equivalent student, during the fiscal period 2008 to 2014 (Mitchell, Leachman & Masterson, 2016). The University attempted to maintain financial sustainability through tuition fees increment of $1,215 per full-time equivalent student (21.3 per cent) in the same six years (Mitchell, Leachman & Masterson, 2016).

Before 2010 and 2011, the Californian government was the primary source of revenue for the University of California (University of California, 2014). However, despite rising student enrolment, state educational financing declined by more than $1 billion between 2000 and 2014 (University of California, 2014). Furthermore, as indicated in Table 1.1, state educational support accounted for only 9% of the University of California's (UC) operational budget in 2012 to 2013, compared to 23% between 2001 and 2002 (University of California, 2014). The University's revenues of approximately $25 billion in the 2013-14 fiscal year funded its core business and support activities (University of California Accountability Report, 2015). The University endeavoured to maintain financial sustainability through increasing student tuition and fees, recovering indirect costs, and receiving generous grants (University of California Accountability Report, 2015). During the fiscal year 2013-14, the University of California received new gifts totalling above $1.78 billion. This reflected a 9% growth compared to the previous year. Furthermore, the University of California committed approximately $410 million to endowment financing. The earnings were only available for spending. In addition, the university promoted expanded charitable donations to address budget deficits and increase student financial aid (University of California Accountability Report, 2015).

European universities experienced cuts in state educational support and attempted to remain afloat in various ways. Latvia experienced a 48% initial major cut to state funding at the beginning of 2009. This was followed by a further 18% slash in 2010, in line with the directive of the World Bank and the International Monetary Fund to trim government funding considerably (European University Association, 2011). Cuts in state educational support to

tertiary education of up to 5% were effected to public universities in Poland, Croatia, Serbi, and Former Yugoslav Republic of Macedonia while Czech Republic experienced a 2.4% cut (EUA Monitoring Report, 2011). Latvia pursued mergers of university programmes or institutions, reduced employees' salaries, introduced hiring freezes; and effected redundancies to maintain financial sustainability in the aftermath of the slashing of higher educational support from the state. Estonia attempted to maintain financial sustainability through closures of smaller or associated university departments while and salary freezes. Ireland resorted to redundancies and hiring freezes and reduction of employees' salaries and support infrastructure and services to stay afloat. Austria and Poland introduced reduction in renovation investments for equipment in real estate to stay afloat (EUA Monitoring Report, 2010).

Similarly, African public universities experienced cuts in state educational support and experienced financing deficits with serious impact on their financial sustainability. in Tanzania, the state approval rates of investment in higher education dropped from 82.6% to 37% during the 2000/2001 fiscal year (Ishengoma, 2013; Mgaiwa, 2018), representing a financing deficit of up to 63% during the 2000/2001 fiscal period. In Kenya, the state universities were allocated KSh 48 billion (USD564.7 million) which was slashed to KSh 44 billion (USD517.6 million) in the 2011/2012 fiscal year (GOK, 2011 in Oanda, 2013). For the fiscal year 2021, the Kenyan government reduced the funding to universities from US$1.53 to US$1.13 billion in pursuit of a cost-cutting drive to alleviate the repercussion of the Covid-19 contagion which crippled revenue collection and impeded economic activity in the country (Ng'ang'a, 2020). The budgetary cut represented 26% thereby crippling the university services delivery that ended up covering 57% of the learners against a target of 80% (Ng'ang'a, 2020). In addition, Kenya effected a 6% cut in higher education spending from the USD627 million allocated in 2014/15 to USD588 million (Ng'ang'a, 2015). The situation was aggravated by a directive from Kenya's Commission for University Education (CUE) barring universities from offering diploma and certificate courses (Ng'ang'a, 2015).

Nigeria experienced a decline in state investment in higher education ranging from 11.5% in the financial year to 8.7% in the financial year 2013 (Table 1.4) (Sanni, 2016). Studies by Adeniyi (2008), Bamiro and Adedeji (2010), Ogbogu (2011), Famade (2015) showed that inadequate funding led to the abandonment of capital and research projects, compromised teaching and research standard and efficiency and productivity of Nigerian universities.

In Zambia, funding cuts exhibited a longstanding trend. For example, the government allocated ZMW13.8 billion (US$674 million) for education – primary to tertiary that represented 12.4% of the total year-on-year budget cycle from October 2019-20 (Tonga, 2020). The 2021 allocation was set at ZMW13.1 billion (US$640 million), representing 11.5% of the budget cycle from October 2020-21, down 0.9% (Tonga, 2020). As a result, lecturers were owed pay arrears while student enrolment and graduation costs rose. On average, graduate study fees at public universities for Zambian students cost between ZMW16,789 (US$820) and ZMW21,808 (US$1,065) per year, while international students paid a lot more – ZMW153,797 (US$7,510) and ZMW238,043 (US$11,625) per year. Fees had been steadily rising for the past 10 years for local students (Tonga, 2020). The Zambian government resorted to increments in student loans to mitigate the funding challenge.

In South Africa, government funding plummeted from 49% of the university revenue in 2000 to 40% in 2009 (Wild, 26 August 2016). The Department of Higher Education, Science, and Technology saw the budget for 2020/21 lowered by R9.857 billion (US$596 million) from an initial allocation of R116.857 billion to R107.000 billion, indicating an 8% decline. This was

done to help with COVID-19 mitigation and student assistance programmes (Naidu & Dell, 2020). Furthermore, the university budgets for fiscal year 2021 were reduced by ZAR24.6 billion. The adjustment was made in order to lessen the effect of the COVID-19 contagion on the faltering economy (Naidu, 2021). This meant that the universities needed to earn at least ZAR24.6 billion in internal revenue in order to stay financially sustainable.

In Zimbabwe, the public universities experienced cuts in government financial support that culminated in high financing deficits that required urgent attention for the universities to remain financially sustainable (Tables 2 and 3).

Table 2: Percentage Cuts in State Appropriations, and Financing Deficits in Zimbabwe's Higher Education Sector between Fiscal Years 2013 and 2017

Fiscal year	Budget proposal submitted ($million)	Allocation received ($million)	Amount disbursed ($million)	Variance (financing deficit) ($million)	Percentage financing deficit to be filled by IGR)
2013	$71.8	$59.3	$33.7	$38.1	53.1
2014	$59	$58	$16	$43	72.8
2015	$52.3	$34	$8.8	$43.5	83.1
2016	$216.4	$37.4	$9.2	$207.2	95.7
2017	$244.8	$26.9			

Source: Author (2017) based on Mukeredzi (2017)

Table 1.2 shows that during the fiscal period 2013 to 2017, the higher education sector of Zimbabwe received financial support from the government to the tune of $33.7 million, $16 million, $8.8 million, and $9.2 million, eighty percent of which met salary expenses, leaving 20 percent for operational costs. The analysis of the funding of the universities during the fiscal period 2013 to 2017 showed financing deficits of $207.2 million, $43.5 million, $43 million, and $38.1 million, representing percentage financing deficits of 53.1 percent, 72.8 percent, 83.1 percent, and 95.7 percent, respectively, excluding employment costs. The financing deficits had serious implications on the financial sustainability of the universities and required urgent and sustainable financing solutions for the universities to remain afloat.

A review of empirical research on the funding of individual public universities of Zimbabwe showed huge financing deficits that justified the need for the universities to embark on rigorous innovative financial resource mobilisation projects/programmes to increase their financial sustainability (Table 3).

Table 3: Fiscal Year 2009 Budget Allocations, Actual Releases and Financing Deficits for Zimbabwe's Universities ('000 Rounded)

University	RECURRENT				CAPITAL			
	Allocation	Release	Actual disbursement as percentage of allocated amount	Percentage financing deficit	Allocation	Release	Actual disbursement as percentage of allocated amount	Percentage financing deficit
BUSE	1 169	517	44.2	55.8	315	0	0.0	100.0
CUT	1 995	765	38.5	61.5	130	0	0.0	100.0
GZU	1 236	645	52.2	47.8	300	60	20.0	80.0
HIT	598	352	58.9	41.1	300	0	0.0	100.0

LSU	298	256	85.9	14.1	280	95	33.9	66.1
MSU	2 438	934	38.3	61.7	230	0	0.0	100.0
NUST	2 046	900	44.0	56.0	300	0	0.0	100.0
ZOU	1 996	972	54.1	45.9	160	0	0.0	100.0
UZ	5 732	2 509	43.8	56.2	929	492	53.0	47.0
TOTALS	**17 308**	**7 854**	**45.4**	**54.6**	**2 944**	**647**	**21.9**	**78.1**

Source: Adapted from Ministry of Finance (2011) in Chihombori (2013)

The main purpose of conducting the study was to examine the determinants of effective financial resource mobilisation to maintain the financial sustainability of public universities of Zimbabwe.

The study was guided by two research objectives, namely, to determine the effect of innovative financial resource mobilisation on the financial sustainability of Zimbabwe's public universities; and to identify the determinants of effective financial resource mobilisation in public universities of Zimbabwe 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 are the determinants of effective financial resource mobilisation in public universities of Zimbabwe to increase financial sustainability?

The conceptual framework of the study was based on one independent variable, namely, innovative financial resource mobilisation, and one dependent variable, namely, financial sustainability of the public universities of Zimbabwe.

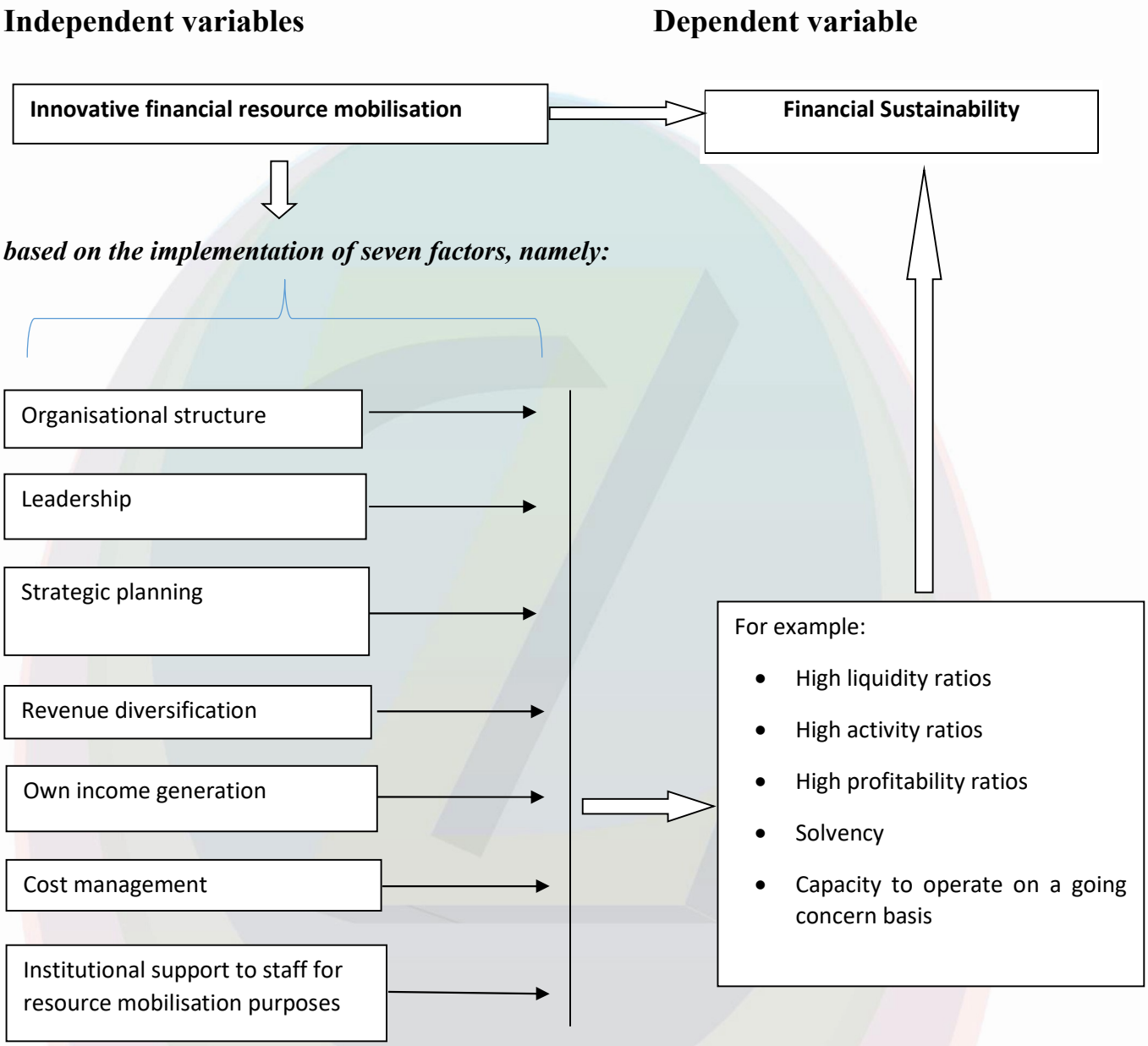

Figure 1: Conceptual framework of the study Source: Author's Illustration (2023)

Figure 1 depicts the conceptualisation of effective financial resource mobilisation in terms of six determinants: organisational structure, financial and strategic planning, own income generation, cost management, institutional staff support for resource mobilisation purposes, and sound administration and finance. It was assumed that effective innovative financial resource mobilisation would be a function of the interaction 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 financial sustainability in Zimbabwe's public universities. The impact of financial resource mobilisation on the financial sustainability of Zimbabwe's public universities was investigated based on these six parameters. It was hypothesised that there was a strong link between innovative mobilisation of financial resources and the financial sustainability of Zimbabwe's public universities. In addition, a null hypothesis was developed and tested

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

Research 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

The results on the relationship between the different variables were recorded in Table 4.

Table 4: Correlation analysis

	Financial Sustainability	*Strategic Planning*	*Organisational Structure*	*Financial Administratio*	*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

NB. Correlation was 2-tailed and significant at 0.05 level; n = 168
Source: Researcher (2023) based on research data

The analysis of correlation data in Table 4 revealed six predictor factors that had a positive link with financial sustainability and were thus included in the analysis. A weak, positive link between strategic planning and the financial sustainability of Zimbabwe's public universities (r = 0.11; p-value 0.05) existed. A relatively modest, positive, and substantial link between organisational structure and the financial sustainability of Zimbabwe's public universities (r = 0.49; p-value 0.05) was shown. A slight, positive, and significant association between financial administration and the financial sustainability of Zimbabwe's public universities (r = 0.13; p-value 0.05) was demonstrated. Furthermore, a relatively weak, positive, and significant relationship between cost management and the financial sustainability of Zimbabwe's public universities (r = 0.45; p-value 0.05) existed. Institutional support and the financial sustainability of Zimbabwe's public universities had a relatively modest, positive, and significant association (r = 0.3; p-value 0.05). Furthermore, a slight, positive, and significant association between self-employment and the financial sustainability of Zimbabwe's public universities (r = 0.16; p-value 0.05) was depicted.

The findings indicated that strategic planning, organisational structure, financial administration, cost management, institutional support, and own income generation were determinants of effective resource mobilisation and were positively connected with the financial sustainability of Zimbabwe's public universities at a 95% confidence level. It may be

determined that public universities in Zimbabwe that applied adequate strategic planning, organisational structure, financial administration, cost control, institutional support, and own income creation would considerably increase financial sustainability.

A multivariate regression model was used to examine the influence of innovative financial resource mobilisation on the financial sustainability of Zimbabwe's public universities. The model was used to determine the association between strategic planning, organisational structure, financial administration, cost management, institutional support, own income generation (predictor variables), and financial sustainability (dependent variable).

The coefficient of determination, or R square, illustrated how the outcome variable changed due to a variation in the predictor variable (see Table 5).

Table 5: 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

Source: Researcher (2023) based on field research results

An R square (R^2) value of 0.3216 was derived from the overall fit values in Table 5. This meant that 32.2% of the variance in Y was related to additional factors not included in the model and not addressed in the current study, as well as special factors unique to Zimbabwe's public universities. The findings suggested that Zimbabwean public universities which implemented innovative financial resource mobilisation techniques would see a moderate improvement in financial sustainability.

Furthermore, the results analysis revealed a coefficient of determination (Adjusted R square) value of 0.2963, suggesting that up to 29.6% of the change in financial sustainability could be explained by the regression. A multiple correlation coefficient (R) of 0.552135 was found, which indicated a moderate connection between the anticipated and the observed data.

Multivariate regression model coefficients which might be used for prediction were derived and displayed in Table 6.

Table 6: 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

B: Dependent Variable: Financial Sustainability
X_1, X_2, X_3, X_4, X_5, and X_6: Independent Variables
Source: Author (2023) based on field research data

The multiple regression model coefficients result in Table 6 showed that predictor variable X_1 (strategic planning) had a correlation coefficient of -0.18. The findings of the multiple regression model coefficients showed that predictor variable X_1, that is, strategic planning, had a correlation value of -0.18, indicating a negative relationship with financial sustainability. Therefore, a unit rise in strategic planning practices would yield a large unit decline in the financial sustainability of Zimbabwe's public universities. The correlation coefficient for predictor variable X_2, organisational structure, was 0.26, indicating a favourable influence on financial sustainability. As a result, rise in organisational structure practices would considerably boost the financial sustainability of Zimbabwe's public universities.

The coefficient for predictor variable X_4 (cost management) was 0.25, implying that cost management had a positive effect on financial sustainability. As a result, improving cost-cutting measures would greatly improve the financial sustainability of Zimbabwe's public universities.

Predictor variable X_3 (Financial administration) had a coefficient of 0.094, predictor variable X_5 (Institutional support) had a coefficient of 0.086, and predictor variable X_6 (own income generation) had a coefficient of 0.07, indicating that X_3, X_5, and X_6 were insignificant predictors of Y (financial sustainability).

The fitted regression model was $Yi = 8.630 - 0.181X_1 + 0.261X_2 + 0.094X_3 + 0.255X_4 + 0.086X_5 + 0.07X_6$, where Yi referred to financial sustainability, X_1 to organisational structure, X_3 to cost management, X_4 to financial administration, X_5 to institutional support, and X_6 to own income production.

The multivariate linear regression model showed that organisational structure, cost management, financial administration, institutional support, and own income generation had positive coefficients, indicating a positive relationship with Zimbabwe's financial sustainability. One unit change in strategic planning results in a 0.181 unit drop in financial sustainability for Zimbabwe's public universities, while one unit change in organisational structure results in a 0.261 unit increase in financial sustainability. One unit change in cost management results in a 0.255 unit rise in financial sustainability, but one unit change in financial administration results in a 0.29 unit increase in financial sustainability. Furthermore, a unit rise in institutional support results in a 0.086 unit rise in financial sustainability. Furthermore, a unit shift in own income creation would result in a 0.07 unit rise in financial sustainability.

The link between the X and Y-intercepts was examined and revealed the following: Y-intercept (b): two-tailed, T = 8.304, p-value = 0.000. Therefore, b was substantially different from 0. Since an F statistical significance value of 0.000 was shown, which was below 0.05, this meant that the predictor variables (that is, the relationship between strategic planning, organisational

structure, financial administration, cost management, institutional support, and own income generation) explained the variation in the dependent variable, which was financial sustainability.

The entire regression analysis showed that the right-tailed F(3,164) = 12.7208, p-value = 0.000. The H0 (the null hypothesis): Innovative financial resource mobilisation has no significant effect on the financial sustainability of Zimbabwe's public universities was rejected due to the p-value (0.05). On the other hand, H1: Innovative financial resource mobilisation has a significant effect on the financial sustainability of Zimbabwe's public universities, was acknowledged.

The model fitness test was performed to verify the model's reliability in projecting financial sustainability, and the results are shown in Table 7.

The degrees of variability within the regression model, based on the Analysis of Variance were as follows:

Table 7: Analysis of variance

Source	DF	Sum of Square	Mean Square	F Statistic	P-value
Regression (between $\hat{y}_i$ and $\bar{y}$)	6	582.425	97.071	12.721	0.00
Residual Error (between y_i and $\hat{y}_i$)	161	1 228.569	7.631		
Total (between y_i and $\bar{y}$)	167	1 810.994	10.844		

Source: Researcher (2023) based on field research results

Since the F statistic's significance value of 0.000 was below 0.05 (Table 7), the predictors' variables, namely the relationship between strategic planning, organisational structure, financial administration, cost management, institutional support, and own income generation, were assumed to explain the variation in the dependent variable, which was financial sustainability.

Table 7's model fitness result indicated an F-statistic of 12.721>10.844 and a p-value of 0.000 0.05, indicating that the model was fit for prediction at the 95% confidence level. This meant that innovative financial resource mobilisation had a substantial impact on Zimbabwe's public universities' 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 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. As a result, the more organisational structure, cost management, financial administration, institutional support, and own income production projects were implemented, the greater the financial sustainability. The study also concluded that strategic planning practices negatively

affected the financial sustainability of the public universities of Zimbabwe; the more the public universities implemented the strategic planning practices, the less the financial sustainability. The study recommended that the management at the public universities of Zimbabwe highly vigorously embark on innovative financial resource mobilisation programmes to maintain financial sustainability. Successful financial resource mobilisation must be anchored on key success factors like organisational structure free from bureaucratic bottlenecks, effective cost management measures, sound financial administration practices, adequate institutional support, and lucrative own income generation programmes.

References

Chinyoka, A., & Mutambara, E. (2020). The challenges of revenue generation in state universities: The case of Zimbabwe. *Cogent Social Sciences*, *6*(1), DOI: 10.1080/23311886.2020.1748477.

Chihombori, D. (2013). *Cost-sharing in higher education financing in Zimbabwe, 1957-2009.* University of the Western Cape.

Madzimure, J. (2016). Zimbabwe university education system: A survival of the fittest, *Nehanda Radio.* October 4, 2016. http://nehandaradio.com/2016/10/04/zimbabwean-university-education-system-survival-fittest/. Retrieved on 11 March 2017.

Karuhanga, J. (21 April 2017). UNESCO calls on governments to make higher education equitable, affordable. *The New Times.* Rwanda.

McCarthy, J., & Zald, M. (1977). Resource mobilization and social movements: A Partial Theory. *The American Journal of Sociology*, 82, 6, 1212-1241.

Nganga, G. (08 July 2021). Sector decries funding cuts, pushes for innovative financing options. *University World News.* https://www.universityworldnews.com/post.php?story=20210707195354 64. Retrieved 9 September 2021.