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Budget planning and expenditure control in public universities: A case study of Gauteng, South Africa

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Abstract

Efficient budget planning and expenditure control are critical to the financial sustainability of public universities in South Africa, particularly amid increasing funding pressures following the COVID-19 pandemic. This study examines budget development processes, expenditure management practices, and institutional responses to a changing funding environment in public universities in Gauteng. Using a mixed-methods approach, the study combines a review of relevant literature with empirical data collected through online questionnaires completed by senior finance officers, departmental heads, and management personnel. The analysis focuses on budgeting models, expenditure control mechanisms, internal control practices, and the use of financial management systems. The findings indicate that incremental budgeting remains the most widely used approach, with institutions largely relying on prior-year budgets adjusted for inflation. However, this model is increasingly viewed as insufficient for addressing contemporary financial challenges, leading to growing interest in more flexible alternatives such as performance-based and activity-based budgeting. While financial systems such as ITS and SAP are commonly employed, persistent gaps exist in internal controls, cost tracking, and the allocation of research and operational expenditures. Furthermore, inconsistencies were identified in the management of technology stations and student housing, particularly in relation to income generation and capital expenditure planning. Thus, the study concludes that existing budgeting and expenditure control practices lack the responsiveness required in a dynamic funding environment. It therefore recommends the adoption of more adaptive budgeting frameworks, stronger internal control systems, improved transparency and accountability, and enhanced capacity development for departmental budget planners to support long-term financial sustainability.

Keywords: Budgetary planning, Expenditure control, Financial management, Higher education funding, Incremental budgeting, Performance-based budgeting, Public universities, South Africa.

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1. Introduction

Higher education in South Africa operates within a complex socio-cultural, economic, and political environment that significantly shapes institutional priorities and outcomes. As Choudaha [1] notes, the sector stands at a critical crossroads where these intersecting forces influence its future trajectory. Across Africa, higher education is widely recognised as a key driver of social, economic, and technological development [2]. In South Africa, universities serve not only as centres of learning and research but also as spaces where broader political and social agendas are negotiated and enacted. Walker and McLean [3] argue that higher education institutions (HEIs) often mirror the ambitions of political systems, particularly through education policy and governance frameworks. Within this context, maintaining financial stability is essential for universities to sustain their core academic and developmental functions amid ongoing political and economic pressures [4].

However, the financial challenges confronting public universities have intensified in recent years, particularly following the FeesMustFall movement in 2015 and subsequent government interventions aimed at reducing the financial burden on students. Measures such as fee freezes and expanded access to free higher education, while socially progressive, have placed substantial strain on university finances. Public universities, including those in Gauteng, continue to face rising operational costs driven by inflation, salary adjustments, and infrastructure demands, even as revenue streams become increasingly uncertain. The growing dependence on state funding has raised concerns regarding institutional autonomy and long-term financial sustainability [5] with evidence suggesting that universities remain underfunded relative to their mandates [6].

Despite these pressures, many universities continue to rely on incremental budgeting models rooted in historical expenditure patterns. While administratively convenient, this approach may entrench inefficiencies and limit institutional responsiveness to emerging challenges. Furthermore, the unpredictability of government grants, student protests, rising enrolments, and infrastructural pressures complicates long-term financial planning, highlighting weaknesses in existing budgetary and expenditure control systems. Although prior studies acknowledge these challenges, there remains limited empirical research on how public universities in Gauteng specifically plan, allocate, and control their financial resources under such dynamic conditions.

Against this backdrop, the primary objective of this study is to examine budget planning and expenditure control practices at public universities in Gauteng, South Africa. Specifically, the study seeks to identify the budgeting models in use, assess expenditure control mechanisms, examine the roles of key stakeholders such as financial officers and departmental heads, and evaluate whether income generated from student accommodation sufficiently covers operational costs. The central research questions focus on how budgets are developed, how expenditures are monitored and controlled, and what challenges universities face in achieving financial sustainability.

To address these objectives, the study follows a structured research process beginning with a review of relevant literature on higher education finance and budgeting models. This is followed by the collection of empirical data through questionnaires administered to key university stakeholders. The data are then analysed to identify prevailing practices, challenges, and opportunities for improving budgetary planning and expenditure control. Through this approach, the study aims to contribute to improved financial management practices and inform policy and decision-making within South African higher education and comparable contexts.

2. Literature Review

2.1. Theoretical Review

The theoretical framework of this study provides the foundation for analysing budgetary planning and expenditure control at public universities, drawing on established theories and contemporary scholarship [7]. This review is informed by peer-reviewed literature, policy documents, and institutional budget records, focusing on South African public universities, particularly in Gauteng. Key financial management areas examined include income sources, internal budget controls, expenditure procedures, and the management of earmarked grants and third-stream income. Situating these practices within a context of increasing financial constraints, governance demands, and accountability pressures highlights the critical need for universities to plan, allocate, and monitor resources effectively. Understanding these interactions is essential for enhancing budgeting practices and ensuring long-term institutional financial sustainability.

Building on this foundation, institutional theory offers a lens to interpret how universities respond to external pressures. Originally developed by Selznick and extended by Meyer and Rowan [8] the theory posits that organisations

adopt practices to gain legitimacy rather than solely to enhance efficiency [9, 10]. Recent studies confirm that higher education institutions face coercive, normative, and mimetic pressures shaping financial and governance practices [11]. In South Africa, universities often symbolically adopt reforms such as financial transparency and participatory budgeting to satisfy government, funders, and student expectations, even when core budgetary routines remain largely unchanged [6]. Concepts such as loose coupling, rational myths, diffusion, and legitimacy help explain the gap between formal financial systems and actual institutional practices [12, 13].

Complementing institutional theory, budgetary and expenditure control theories focus on how resources are allocated and monitored to achieve institutional objectives. Budgetary theory views budgeting as a strategic decision-making process that distributes scarce resources among competing priorities [14] often using incremental approaches for predictability and stability. While performance-based budgeting is increasingly promoted, adoption is constrained by data limitations, institutional resistance, and concerns over academic autonomy [15, 16]. Expenditure control theory emphasises aligning actual spending with approved budgets to protect institutional objectives and public resources [17]. Recent studies indicate that while formal controls exist, effectiveness is frequently undermined by capacity gaps, weak oversight, and fragmented accountability [13, 18]. Despite these insights, limited empirical research has examined how universities in Gauteng specifically plan, manage, and control their budgets under dynamic financial and socio-political pressures, highlighting a critical gap that this study seeks to address.

2.2. Empirical Review

This study's theoretical framework provides the foundation for examining budgetary planning and expenditure control at public universities, drawing on established theories and recent scholarship [7]. The review integrates peer-reviewed literature, policy documents, and institutional budget records, focusing on South African universities, particularly in Gauteng. Key areas include income sources, internal budget controls, expenditure procedures, and management of earmarked grants and third-stream income. Within a context of rising financial constraints, governance demands, and accountability pressures, universities must plan, allocate, and monitor resources effectively to maintain financial sustainability and institutional performance, highlighting the need to understand how these processes operate in practice.

Institutional theory provides insight into how universities respond to external pressures. Meyer and Rowan [8] argue that organisations often adopt practices to gain legitimacy rather than purely to enhance efficiency [9, 10]. Studies show that higher education institutions face coercive, normative, and mimetic pressures shaping governance and financial practices [11]. In South Africa, symbolic reforms such as financial transparency and participatory budgeting often satisfy government, funder, and student expectations while leaving core budgetary routines largely unchanged [6]. Concepts such as loose coupling, rational myths, diffusion, and legitimacy help explain the persistent gaps between formal financial frameworks and actual practices [12, 13].

Complementing institutional theory, budgetary and expenditure control frameworks focus on resource allocation and monitoring. Budgeting is conceptualised as a strategic process distributing scarce resources among competing priorities, typically using incremental models for stability [14]. Although performance-based budgeting is promoted, adoption is constrained by data limitations, institutional resistance, and concerns over academic autonomy [15, 16]. Expenditure control ensures alignment of spending with approved budgets [17], but capacity gaps, weak oversight, and fragmented accountability remain challenges [13, 18]. Despite these insights, limited research has explored how universities in Gauteng specifically plan, allocate, and monitor budgets under dynamic financial and socio-political pressures, highlighting a critical gap this study seeks to address.

3. Research Methodology

This study adopted an exploratory quantitative research design to investigate budgetary planning and expenditure control at public universities in Gauteng, South Africa. Specifically, a structured questionnaire with closed-ended questions was employed to collect numerical data, allowing for objective, systematic, and generalizable analysis of patterns and relationships in institutional financial management practices [7]. By adopting this approach, the study aimed to provide measurable insights that complement prior qualitative research in the field.

The research population comprised all 27 public universities in South Africa, with a focus on seven Gauteng-based institutions. Out of these, five universities granted permission to participate: the University of the Witwatersrand, University of Johannesburg, University of South Africa, Sefako Makgatho Health Sciences University, and Vaal University of Technology. These institutions represent traditional, comprehensive, and technical universities, ensuring diversity and enabling a balanced examination of budgeting and expenditure control across different institutional models (see Table 1).

Table 1.
Participation of Gauteng Public Universities in the Study.

University Name	Type	Participation in Study
University of the Witwatersrand (WITS)	Traditional	Yes
University of Johannesburg (UJ)	Comprehensive	Yes
University of Pretoria (UP)	Traditional	No
Sefako Makgatho Health Sciences University (SMU)	Traditional	Yes
University of South Africa (UNISA)	Comprehensive	Yes
Tshwane University of Technology (TUT)	University of Technology	No
Vaal University of Technology (VUT)	University of Technology	Yes

Purposive sampling targeted finance directors, deans, departmental heads, and managers of student residences and technology stations, while convenience sampling facilitated data collection amid logistical and budget constraints. Data were collected online via SurveyMonkey, and the instrument was pilot-tested with senior accountants and finance academics to ensure clarity and validity. A total of 56 valid responses were obtained. Ethical clearance for the study was granted by the Vaal University of Technology Research Ethics Review Board, ensuring that all human participants were informed, voluntary, and protected.

Subsequently, data were analyzed using SPSS to calculate descriptive statistics—frequencies, means, medians, modes, and standard deviations—alongside correlations to explore relationships between variables. Unlike prior studies that relied mainly on qualitative interviews or document analysis, this quantitative approach enabled systematic comparisons across institutions, enhancing reliability, validity, and understanding of budgeting and expenditure control in South African public universities [6, 17].

4. Results and Discussion

4.1. Demographics and Cost Analysis

To gain a deeper understanding of institutional practices related to cost analysis and management, the study collected data on the key demographic and operational characteristics of the participating institutions. These characteristics include the number of faculty members, student enrollment figures, and the existence of formal structures for cost management. The data also provide insights into how frequently cost analyses are conducted and whether institutions have dedicated departments for managing costs. Furthermore, the study examined the extent to which institutions apply cost tracing techniques and allocate service costs to specific activities or units. Table 2 summarizes these findings, offering a snapshot of current practices and highlighting areas where cost management processes appear to be underdeveloped or inconsistently applied.

Table 2.
Summary of Demographics and Cost Analysis Results.

Aspect	Key Findings
Number of Faculties	44.4% (n=24) had 1–4 faculties; 42.6% (n=23) had 5–10; 4% (n=2) had 11–15; 9% (n=5) had more than 15.
Student Headcount	38% (n=20) had 1–20,000 students; 30% (n=16) had 20,001–40,000; 13% (n=7) had 40,001–60,000; 15% (n=8) had 60,001–80,000; 4% (n=2) had more than 80,000.
Cost Analysis Practice	64% (n=36) of institutions analyse costs; 21% (n=12) unsure if cost analysis is done; ~9% (n=5) unlikely to analyse costs.
Frequency of Analysis	49% (n=26) monthly; 21% (n=11) ad-hoc; 13% (n=7) quarterly; 13% (n=7) annually; 4% (n=2) never.
Cost Management Dept.	40% (n=21) reported having a separate cost management department.
Cost Tracing (Q8)	56% valid responses; 44% missing; responses not reliable for interpretation.
Service Cost Assignment	71% valid responses; 29% missing; data lacked uniformity and was not interpretable.

4.1.1. Demographics

The demographic profile of the sampled universities, as presented in Table 2 illustrates a balanced representation of small and large public universities in Gauteng. In terms of institutional size, the study revealed that 44.4% (n=24) of the participating institutions had between one and four academic faculties, while 42.6% (n=23) had between five and ten faculties. In contrast, a smaller proportion, 4% (n=2), reported having between 11 and 15 faculties, and 9% (n=5) had more than 15 faculties. Together, this diversity indicates that the study successfully captured a wide range of institutional scales, encompassing universities with both compact and extensive academic structures. Similarly, when considering student headcount, 38% (n=20) of universities reported enrollments of up to 20,000 students, while 30% (n=16) enrolled between 20,001 and 40,000 students. Additionally, a smaller percentage of institutions (13%; n=7) reported student numbers ranging from 40,001 to 60,000, with 15% (n=8) within the 60,001 to 80,000 range. Only 4% (n=2) had enrollments exceeding 80,000 students. These patterns confirm the inclusion of universities with varied enrollment sizes, thereby supporting the

study's aim of reflecting budgetary practices across institutions of different scales. Importantly, the variation in university size is significant, as it likely influences the complexity of budget planning and expenditure control mechanisms. Thus, the findings offer critical context for interpreting institutional approaches to cost analysis and management.

4.1.2. Cost Analysis

The demographic profile of the sampled universities, as shown in Table 2, illustrates a balanced representation of both small and large public universities in Gauteng. In terms of institutional size, the study revealed that 44.4% (n=24) of the participating institutions had between one and four academic faculties, while 42.6% (n=23) had between five and ten faculties. In contrast, a small proportion, 4% (n=2), reported having between 11 and 15 faculties, and 9% (n=5) had more than 15 faculties. Together, this diversity indicates that the study successfully captured a wide range of institutional scales, encompassing universities with both compact and extensive academic structures. Similarly, when considering student headcount, 38% (n=20) of universities reported enrollments of up to 20,000 students, while 30% (n=16) enrolled between 20,001 and 40,000 students. Additionally, a smaller share of institutions (13%; n=7) reported student numbers ranging from 40,001 to 60,000, with 15% (n=8) falling within the 60,001 to 80,000 range. Only 4% (n=2) had enrollments exceeding 80,000 students. These patterns confirm the inclusion of universities with varied enrollment sizes, thereby supporting the study's aim of reflecting budgetary practices across institutions of different scales. Importantly, the variation in university size is significant, as it likely influences the complexity of budget planning and expenditure control mechanisms.

Building on this demographic context, the findings regarding cost analysis practices provide important insights into how these universities manage their financial resources. The majority of institutions (64%; n=36) reported actively engaging in cost analysis, reflecting a growing recognition of the importance of financial oversight in the higher education sector. However, 21% (n=12) of respondents were unsure whether such practices were in place at their institutions, which may indicate either fragmented implementation or limited communication about these processes. A small proportion (9%; n=5) indicated that cost analysis was unlikely to be conducted at their university. Furthermore, the frequency with which cost analysis is conducted varied considerably across institutions. Nearly half (49%; n=26) of the universities reported undertaking cost analysis monthly, suggesting a proactive and regular approach. In contrast, 21% (n=11) conducted cost analysis on an ad-hoc basis, while 13% (n=7) did so quarterly, and another 13% (n=7) annually. Notably, 4% (n=2) indicated that they never engage in cost analysis. This variability in frequency highlights differences in institutional commitment and capacity for systematic cost management. Moreover, only 40% (n=21) of institutions reported having a dedicated cost management department. This finding is critical because it suggests that, in many cases, cost analysis responsibilities may be spread across departments or managed informally. Finally, while responses regarding cost tracing and service cost assignment were incomplete, with a high proportion of missing or non-uniform data, the available evidence points to challenges in implementing consistent cost tracking practices across universities.

4.1.3. Discussion: Demographics and Cost Analysis

The demographic characteristics of the sampled universities in Gauteng reflect a balanced mix of institutional sizes, both in terms of faculty numbers and student enrollments. As presented in Table 2, the majority of institutions (44.4%) have between one and four faculties, while a comparable share (42.6%) reports between five and ten faculties. In contrast, only a minority operate with larger academic structures, with 9% having more than 15 faculties. Similarly, student enrollments vary widely, with 38% of universities hosting fewer than 20,000 students, while 30% enroll between 20,001 and 40,000 students. A smaller proportion (13%) reports student numbers between 40,001 and 60,000, with 15% in the 60,001 to 80,000 range. Notably, only 4% of institutions have enrollments exceeding 80,000 students. Taken together, these figures confirm that the study successfully included universities with diverse enrollment sizes, thereby supporting its aim of reflecting budgetary practices across institutions of varying scales. This diversity is significant, as it likely influences the complexity of budget planning and expenditure control mechanisms, a relationship highlighted by Walwyn [19].

Turning to cost analysis practices, the findings reveal that while a majority of universities (64%) report conducting cost analysis, a significant portion either does not engage in such practices (9%) or is uncertain whether cost analysis takes place (21%). This uncertainty may indicate gaps in institutional communication or the decentralization of cost management responsibilities, as noted by Naidoo [20] Additionally, the frequency of cost analysis varies significantly. Nearly half (49%) of the universities reported conducting cost analysis on a monthly basis, a practice that demonstrates a commendable level of financial oversight. Indeed, monthly analysis allows universities to closely monitor expenditure trends, respond quickly to budget variances, and adjust operational plans as necessary [21]. However, 21% of institutions conduct cost analysis only on an ad-hoc basis, while 13% do so annually. Such irregularity, as emphasized by Serfontein [22] raises the risk of delayed corrective actions, which can worsen budget overruns and inefficiencies in resource use.

Furthermore, the finding that only 40% of institutions have a dedicated cost management department is concerning. This indicates that many universities may lack the structural capacity for systematic cost tracking and analysis, a limitation that aligns with Serfontein [23] observations regarding resource constraints at historically disadvantaged universities. Additionally, data on cost tracing and service cost assignment were largely inconclusive due to high rates of missing or inconsistent responses. This outcome suggests that, while cost management is widely acknowledged as important, many universities lack the internal systems or technical expertise to implement it effectively at a detailed level. This finding supports the conclusions of Serfontein [23] who argue that cost recovery and cross-subsidization processes in universities often remain opaque or underdeveloped due to such gaps. In summary, while there is clear evidence of growing awareness about the importance of cost analysis within South African universities, significant disparities remain in the consistency

and quality of implementation. This reinforces calls in the literature [21, 24] for greater capacity-building, improved financial systems, and national guidelines that are sensitive to institutional diversity. Ultimately, such reforms are essential for universities to enhance financial sustainability and resilience in the face of ongoing funding challenges.

4.2. Financial Operational Components

Table 3 provides a detailed overview of how public universities in Gauteng manage various aspects of their financial operations, including expense control, budget income, budget expenditure, technology station funding, and hostel budgeting practices. This table builds on the earlier demographic data and cost analysis by offering insights into the internal financial mechanisms used across institutions of different sizes and complexities. Moreover, the data highlight how universities balance traditional methods and modern systems in applying internal controls, planning income and expenditure, and supporting auxiliary services. Consequently, the findings offer a valuable foundation for evaluating the strengths and weaknesses of current budgeting practices while identifying potential gaps in accountability, transparency, and integration across various operational units.

Table 3.
Financial Operational Components.

Area	Key Findings	% / Frequency
Expense Control	Use of budget reporting software always	57.4% (n=31)
	Main accounting package: ITS	78.8% (n=41)
	Transfers within cost centres when budget depleted	61.5% (n=32)
	Transfers between cost centres	26.9% (n=15)
	Ad-hoc payments via paper requisitions	45.1% (n=23)
	Sufficient departmental budget control perceived	73.1% (n=38)
	Requisitions done online	53.8% (n=28)
Budget Income	Class fees calculated as previous year price + allowable increase	33.3% (n=15)
	Do not know how student fee income is used in budget planning	47.90%
	Expected income part of annual budget (cost code basis)	62% (16+46% combined)
Budget Expenditure	Budgeting method: previous year + inflation	80%
	Budget method seen as effective	27% agree
	Academic salaries part of budget (31-50%)	41%
	Admin/support salaries (0-30%)	38%
	Travel & accommodation (0-10%)	38%
	Entertainment (0-10%)	43%
Technology Station	Expected to raise income for operations	54%
	Salaries part of university's main budget	54%
	Raw materials, ops, building costs part of main budget	47%
Hostels	Do not know how hostel budgets are planned	54% (Question 17), 52% (Question 19)
	Hostel income budgeted to cover total cost	49%

The results in Table 3 reveal mixed levels of sophistication and awareness regarding financial practices within the sampled universities. With regard to expense control, 57.4% of institutions consistently use budget reporting software, which signals a moderate adoption of technology in financial oversight. Furthermore, a significant majority (78.8%) rely on ITS as their main accounting package, reflecting a preference for standardized systems across universities. However, while 61.5% allow transfers within cost centres when budgets are depleted, only 26.9% enable transfers between cost centres. This finding suggests that flexibility exists at the departmental level, although cross-departmental budget adjustments remain limited. Interestingly, despite advancements in technology, 45.1% still process ad-hoc payments via paper requisitions. This points to the persistence of traditional practices alongside emerging digital tools. Nevertheless, it is encouraging that 73.1% of respondents perceive their departmental budget control as sufficient, and 53.8% report that requisitions are processed online, reflecting ongoing digital transformation efforts.

Regarding budget income, the study found that only 33.3% of universities calculate class fees based on the previous year's price plus allowable increases. In contrast, nearly half of the respondents (47.9%) indicated that they do not know how student fee income is incorporated into budget planning. This finding suggests a potential disconnect between revenue generation and strategic budgeting processes. On a more positive note, 62% reported that expected income is included in the annual budget on a cost code basis, indicating that some institutions utilize structured and systematic forecasting approaches. When examining budget expenditures, the results show that 80% of universities continue to use the traditional method of budgeting based on the previous year's figures plus inflation. However, only 27% of respondents agree that this approach is effective, which highlights a growing awareness of the limitations of incremental budgeting in addressing dynamic financial challenges. The allocation of expenditures also appears consistent across institutions: 41% allocate 31–50% of their budget to academic salaries, 38% allocate 0–30% to admin/support salaries, while smaller proportions are allocated to travel (38% allocate 0–10%) and entertainment (43% allocate 0–10%).

Turning to technology station budgeting, the data reveal that 54% of institutions expect technology stations to generate their own income for operations. Similarly, 54% include technology station salaries in the university's main budget, and 47% cover raw materials, operational expenses, and building costs through the main budget. These figures indicate that while technology stations are partly integrated into core financial structures, significant variation exists in how their financial needs are managed. Finally, regarding hostel budgeting, more than half of the respondents (54% in one item and 52% in another) were uncertain about how hostel budgets are prepared. Moreover, only 49% confirmed that hostel income is budgeted to fully cover total costs. This suggests that hostel operations may represent a financial blind spot within broader university budgeting frameworks, potentially leading to inefficiencies or funding shortfalls. Hence, the results illustrate that while universities have implemented several structured financial practices, gaps remain, particularly in cross-center budget flexibility, hostel financial planning, and the alignment between income generation and expenditure planning. Therefore, these findings point to opportunities for strengthening financial management frameworks to enhance institutional sustainability.

4.3. Discussion: Financial Operational Components

The findings from Table 3 illustrate both strengths and challenges in financial management practices across public universities in Gauteng. Firstly, the moderate adoption of budget reporting software (57.4%) and the widespread use of standardized accounting systems like ITS (78.8%) align with recent studies emphasizing the importance of digital solutions in enhancing public sector financial accountability. For example, Mametja [25] note that South African universities that integrate enterprise resource planning (ERP) systems achieve greater transparency and efficiency in their financial operations. Similarly, Van Rensburg, et al. [26] highlight that digital budget reporting tools are crucial for supporting data-driven decision-making in higher education. However, the persistence of paper-based requisitions (reported by 45.1% of institutions) underscores a tension between traditional processes and modern financial management approaches. This finding is consistent with Ngcobo [27] who found that institutional inertia and resistance to change often slow down the full digital transformation of administrative processes in South African universities. Furthermore, the limited use of cross-center budget transfers (26.9%) may reflect rigid financial governance structures that inhibit flexibility, an issue also identified by Broman, et al. [28] who argue that greater budget agility is essential for responding to rapidly shifting funding environments.

Turning to budget income practices, the lack of clarity regarding the integration of student fee income in budget planning (with 47.9% of respondents unsure) indicates a gap in strategic alignment between revenue generation and expenditure planning. This disconnect has been echoed in the work of Amoako [29] who argue that many universities in South Africa struggle to link tuition income forecasts with strategic and operational plans, thereby undermining financial sustainability. Moreover, while 62% of institutions incorporate expected income into the annual budget on a cost code basis, this figure implies that nearly 40% may not be applying this fundamental budgeting discipline, potentially exposing them to financial risks. In terms of expenditure, the prevalence of incremental budgeting (80% using previous year + inflation) showcases a continued reliance on traditional methods.

According to Leo and Matyana [30] such approaches, while easy to administer, are becoming increasingly insufficient for addressing the complexities of higher education funding, including fluctuations in government subsidies, pressures from student fees, and unpredictable operational costs. Indeed, the fact that only 27% of respondents consider this method effective underscores the growing acknowledgment of its limitations. The findings regarding technology stations further illustrate the fragmented budgeting approach for support units. While 54% of universities expect these units to self-fund their operations, and similar proportions incorporate salaries and other expenses into the main budget, the variations indicate a lack of standard policy in this area. This observation aligns with Mutula [31] who highlights that universities often lack cohesive frameworks for financing research and innovation centers, resulting in uneven performance and sustainability challenges.

Finally, the uncertainty surrounding hostel budgeting (with over half of respondents unclear about how hostel budgets are planned) highlights a critical oversight in auxiliary service management. This is concerning given that hostels serve both as cost centers and potential revenue streams. Dube [32] similarly argue that poor integration of auxiliary service budgeting into university financial systems leads to deficits and undermines service quality. In summary, this study's results reflect the broader challenges identified in recent literature: universities are advancing toward modern financial practices but still struggle with legacy systems, fragmented planning, and inadequate alignment between revenue and expenditure frameworks. Addressing these gaps through capacity building, policy reforms, and technology integration will be essential for enhancing the financial resilience of public universities.

5. Conclusion, Implications, Limitations and Future Research

5.1. Conclusion

This study investigated budgeting and expenditure control practices at public universities in Gauteng, South Africa, and revealed important insights into their financial management systems. Findings indicate that while digital tools such as ITS and budget-reporting software are increasingly used, traditional methods, particularly incremental budgeting, remain dominant. This reliance limits universities' responsiveness to changing financial needs and contributes to structural inefficiencies, including fragmented budget allocations, paper-based processes, and inconsistent planning for facilities such as student residences and technology stations.

5.2. Implications

The study highlights the need for universities to adopt more flexible and forward-looking budgeting approaches, including zero-based budgeting (ZBB), rolling forecasts, and performance-based budgeting (PBB), to align resources with institutional priorities. Strengthening the skills of budget officers through continuous training is essential for effective use of digital systems and for maintaining robust financial controls. Implementing a hybrid budgeting framework, supported by centralized oversight while allowing departmental flexibility, could enhance financial resilience, adaptability, and sustainability.

5.3. Limitations

The study is limited by its focus on five Gauteng universities, which may reduce generalizability to other regions. In addition, data were collected via self-reported questionnaires, which may introduce bias or limit insights into internal processes.

5.4. Future Research

Future studies could examine the long-term impact of hybrid budgeting models on institutional performance, explore comparative practices across provinces or countries, and investigate the effectiveness of digital financial management systems in strengthening expenditure control and accountability.

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