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Assessment of International Public Sector Accounting Standards (IPSAS) Implementation ZCAS

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Abstract

The adoption of International Public Sector Accounting Standards (IPSAS) has become a key global reform in strengthening public sector financial management. This study aimed to assess the implementation of IPSAS at the Zambia Centre for Accountancy Studies (ZCAS), with a focus on the current state of adoption, the challenges faced, and strategies for enhancing effectiveness. A mixed-method research design was employed, adopting an explanatory sequential approach. Quantitative data were collected from 126 staff and stakeholders through structured questionnaires, and qualitative data were obtained from 15 key informant interviews to explain and enrich the statistical results. The findings indicate that while IPSAS awareness is relatively high (80% among staff and 90% among stakeholders), implementation remains partial. Regression analysis showed that training adequacy (p<0.001) and institutional support (p<0.01) were significant predictors of implementation success, whereas technological infrastructure was not statistically significant (p>0.05). Qualitative insights highlighted additional barriers, including limited communication and insufficient leadership commitment. The study concludes that enhancing staff capacity through targeted training, strengthening institutional support mechanisms, improving communication strategies, and fostering collaboration with external stakeholders are essential for full IPSAS adoption. These findings provide practical insights for ZCAS and contribute to the broader discourse on public sector accounting reforms in Zambia.

Keywords: ZCAS; IPSAS Implementation; Public Sector Accounting; Accounting Reform in Zambia; Financial Reporting Quality; Capacity Building

1. Introduction

The International Public Sector Accounting Standards (IPSAS) are globally recognized accounting guidelines designed to improve financial reporting within governments and public sector institutions [1]. Their primary objective is to enhance transparency, accountability, and comparability in public financial management [2]. By promoting accrual-based reporting, IPSAS provides a more comprehensive representation of public sector financial performance than traditional cash-based systems, thereby strengthening trust between governments and citizens [3]. As global demand for improved public financial governance increases, IPSAS has emerged as a key reform instrument, particularly in developing economies [4].

Globally, the adoption of IPSAS has become a significant milestone in public sector accounting reform. Reports indicate that over 100 countries have adopted or are transitioning toward IPSAS as of 2023 [2]. In Africa, IPSAS implementation is increasingly viewed as a strategic response to governance and accountability challenges. Countries such as Kenya, Ghana, and South Africa have made progress in transitioning toward accrual-based reporting systems, although implementation challenges remain, including limited ICT infrastructure, resistance to change, and capacity constraints [5-7]. Similarly, Zambia continues to face institutional and capacity-related constraints in strengthening public financial

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management systems, as highlighted in the 2023 Public Expenditure and Financial Accountability (PEFA) assessment [8].

In Zambia, IPSAS adoption has been promoted since 2018 following a pronouncement by the Zambia Institute of Chartered Accountants (ZICA), which encouraged public sector entities to begin transitioning toward the standards [9]. However, full accrual-based implementation across government ministries and agencies has not yet been achieved, with many entities still operating under cash-basis frameworks [10,1]. Persistent challenges include delays in audited financial reporting, limited integration between budgeting and accounting systems, and shortages of adequately trained personnel [8,3].

Within this reform environment, the Zambia Centre for Accountancy Studies (ZCAS) plays a strategic role as the country's leading public sector accounting training institution. ZCAS has incorporated IPSAS into its academic and professional programs in alignment with regulatory guidance from ZICA [10,11]. However, while ZCAS contributes to national capacity-building efforts, limited empirical evidence exists regarding its own preparedness, internal implementation status, and the institutional challenges affecting IPSAS-related reforms.

Although Zambia has committed to IPSAS adoption, evidence suggests that implementation remains uneven and transitional. Existing studies have largely examined IPSAS adoption at the national policy level, with limited focus on institutional case studies. This creates a gap in understanding how key training institutions such as ZCAS navigate IPSAS-related reforms and what implications this has for financial reporting quality, institutional accountability, and broader public sector preparedness.

Therefore, the purpose of this study is to assess the effectiveness of IPSAS implementation at the Zambia Centre for Accountancy Studies (ZCAS), with particular emphasis on staff and stakeholder awareness, adequacy of training, institutional support, and the challenges affecting the extent of implementation. Specifically, the study seeks to:

- Evaluate the current state of IPSAS implementation at ZCAS and examine the key challenges affecting its adoption.
- Examine the impact of IPSAS implementation on the accuracy, reliability, and transparency of financial reporting at ZCAS.
- Investigate strategies that may enhance the successful adoption and implementation of IPSAS at ZCAS.

By addressing these objectives, the study contributes to the growing discourse on public sector accounting reforms in Zambia and provides institutional-level insights that may inform national IPSAS rollout strategies.

2. Materials and Methods

2.1. Study Design and Research Approach

This study adopted a pragmatic research philosophy and employed an explanatory sequential mixed-methods design to assess the implementation of International Public Sector Accounting Standards (IPSAS) at the Zambia Centre for Accountancy Studies (ZCAS). Pragmatism emphasizes the use of methods best suited to addressing practical research problems [12].

The study was conducted in two phases. The first phase involved quantitative data collection and analysis to measure the extent of IPSAS awareness, training, and implementation. The second phase involved qualitative inquiry to explain and deepen the quantitative findings. This design enabled triangulation and enhanced the validity of findings [13].

2.2. Study Area and Population

The study was conducted at the Zambia Centre for Accountancy Studies (ZCAS) in Lusaka, Zambia. The total target population consisted of 185 individuals directly or indirectly involved in IPSAS-related activities at ZCAS. These included accounting lecturers, administrative staff, finance personnel, and external stakeholders (industry experts collaborating with ZCAS).

The inclusion of lecturers and administrative staff was based on the understanding that IPSAS implementation extends beyond financial statement preparation to include curriculum integration, professional training, and institutional capacity-building. As a national training institution, ZCAS plays a strategic role in human resource development for public sector accounting in Zambia.

2.3. Sample Size Determination

This study sample size was determined using quantitative and qualitative phases. On the quantitative phase of this study Cochran's [14] formula for sample size calculation was used to determine the sample size using a total population (N) = 185, Confidence level = 95% and Margin of error = 5%. The required sample size for these conditions was calculated as 126 participants.

For the qualitative phase, purposive sampling was employed. Sample size was determined by the principle of data saturation, defined as the point at which no new themes emerge from additional interviews [15]. A total of 17 participants were interviewed, which was sufficient to achieve thematic saturation.

2.4. Sampling Techniques

Stratified random sampling was used in the quantitative phase. The population was divided into strata based on professional role (lecturers, administrative staff, finance personnel, and other staff). Proportional allocation was applied to ensure adequate representation of each subgroup. Participants within each stratum were selected randomly to reduce selection bias.

For the qualitative phase, purposive sampling was used to select participants with direct experience and expertise in IPSAS implementation. These included senior lecturers, finance administrators, and industry professionals collaborating with ZCAS.

2.5. Data Collection Instruments and Procedure

Data were collected using Structured questionnaires for the quantitative phase and semi-structured interviews in the qualitative phase.

The questionnaire consisted primarily of closed-ended items measured using Likert scales to assess awareness of IPSAS, extent of implementation, perceived benefits and institutional challenges.

Likert-scale design ensured consistency and facilitated statistical analysis [16-17].

The semi-structured interview guide included open-ended questions to explore Institutional support mechanisms, Leadership involvement, Capacity-building initiatives and Barriers to IPSAS adoption. Interviews in this study allowed probing for deeper insights [18]. Data collection was conducted in two stages being online-administered questionnaires and physical or virtual interviews depending on participant availability.

2.6. Pilot Study and Instrument Testing

A pilot study involving 10–15 participants was conducted to refine the questionnaire and interview guide, ensuring clarity, relevance, and appropriateness of the items. Feedback obtained during the pilot phase informed revisions to question wording, structure, and response options to enhance comprehensibility and reduce ambiguity. The internal consistency of the questionnaire was subsequently assessed using Cronbach's alpha, with a threshold value of 0.7 or higher considered acceptable for reliability [19]. To strengthen validity, content validity was established through expert review to ensure that the instrument adequately captured the constructs under investigation [20], while construct validity was assessed using factor analysis to confirm the underlying structure of the measurement items [21]. In addition, the Shapiro–Wilk test was applied to assess the normality of the quantitative data distribution [22], and based on the results, appropriate parametric or non-parametric statistical tests were selected to ensure robust and accurate analysis [23].

2.7. Data Preparation and Analysis

Quantitative data were cleaned to address missing values and outliers [24]. Statistical analysis included descriptive statistics (means, frequencies, standard deviations), Independent-samples t-tests, One-way ANOVA, Pearson correlation and Multiple regression analysis [25].

Qualitative data on the other hand were analyzed using thematic analysis following Braun and Clarke's [26] six-step framework which consist of the research familiarising themselves with the data, Coding the data, developing themes from the data, reviewing the developed themes, defining themes and finally reporting the findings. Reflexivity and inter-coder checks were also applied to enhance rigor [27].

2.8. Ethical Considerations

- The study involved human participants and adhered to these ethical research standards
- Institutional approval was obtained prior to data collection.
- Written informed consent was secured from all participants.
- Participants were informed of their right to withdraw at any time.
- Confidentiality and anonymity were ensured.
- Data were stored securely in password-protected systems.
- Information was used strictly for academic purposes.
- No photographs or identifiable personal data were published.

3. Results

3.1. Demographic Characteristics of Respondents

A total of 126 respondents participated in the study, comprising 100 staff members and 26 stakeholders.

3.2. Staff Demographics

A total of 100 staff respondents participated in the study. The distribution of respondents by age group and gender is presented in Table 1.

Table 1 Age and Gender Distribution of Staff Respondents (n = 100)

Age Group	Male (%)	Female (%)	Total (%)
18–24	8	2	10
25–34	25	20	45
35–44	20	10	30
45+	7	8	15
Total	60	40	100

As shown in Table 1, male respondents constituted the majority of participants. The largest proportion of staff fell within the 25–34 age category, followed by those aged 35–44 years.

Departmental representation of respondents is summarized in Table 2.

Table 2 Department Distribution of Staff Respondents

Department	Frequency	Percentage
Academic	40	40%
Administrative	30	30%
Accounting	25	25%
Other	5	5%

Table 2 indicates that the majority of respondents were drawn from the academic department, followed by administrative and accounting units. With respect to years of service, most respondents had between 0–5 years of experience, while a smaller proportion had more than 10 years of institutional experience.

3.2.1. Stakeholder Demographics

A total of 26 external stakeholders participated in the study. The institutional and gender distribution of stakeholders is presented in Table 3.

Table 3 Stakeholder Institutional Representation (n = 26)

Institution	Male (%)	Female (%)	Total (%)
Government Ministry	20	20	40
ZICA	15	10	25
Other Institutions	30	5	35

As shown in Table 3, the majority of stakeholders were affiliated with Government Ministries, followed by representatives from other institutions and the Zambia Institute of Chartered Accountants (ZICA). Male participants constituted a larger proportion of respondents across most institutional categories.

3.3. IPSAS Awareness and Training

3.3.1. Staff Awareness

Staff awareness of International Public Sector Accounting Standards (IPSAS) was assessed to determine the level of familiarity among respondents. The distribution of responses is presented in Table 4.

Table 4 Awareness of IPSAS Among Staff (n = 100)

Familiarity Level	Frequency	Percentage
Very Familiar	30	30%
Somewhat Familiar	50	50%
Not Familiar	20	20%

As shown in Table 4, the majority of staff indicated that they were somewhat familiar with IPSAS, while a smaller proportion reported being very familiar. A minority of respondents indicated limited familiarity, suggesting the need for continued awareness and capacity-building initiatives.

3.4. Staff Training

Qualitative feedback on staff training revealed three key themes namely, Training lacked practical application, Need for continuous training and the Need for enhanced capacity-building support

3.4.1. Stakeholder Awareness and Training

Stakeholder familiarity with International Public Sector Accounting Standards (IPSAS) was assessed to determine the level of external institutional awareness. The distribution of responses is presented in Table 5.

Table 5 Awareness of IPSAS Among Stakeholders (n = 26)

Familiarity Level	Frequency	Percentage
Very Familiar	23	90%
Somewhat Familiar	3	10%

As shown in Table 5, the overwhelming majority of stakeholders reported being very familiar with IPSAS, indicating strong awareness among external institutional partners. In addition, most stakeholders rated the quality of IPSAS-related training as either good or excellent, suggesting a generally positive perception of capacity-building initiatives.

3.5. Perceptions of IPSAS Implementation

3.5.1. Staff Perceptions

Staff perceptions regarding the level of IPSAS implementation at the institution were assessed to determine the perceived progress of reform efforts. The distribution of responses is presented in Table 6.

Table 6 Staff Perception of IPSAS Implementation (n = 100)

Implementation Level	Frequency	Percentage
Fully Implemented	10	10%
Partially Implemented	40	40%
Not Implemented	35	35%
Unsure	15	15%

As shown in Table 6, the majority of staff perceived IPSAS as either partially implemented or not implemented. Only a small proportion of respondents considered IPSAS to be fully implemented, while some remained uncertain about the implementation status. These findings suggest varying levels of awareness and differing interpretations of institutional progress.

Key challenges identified by staff included the need for additional training and limitations in technological infrastructure. These concerns highlight capacity and system readiness issues that may hinder full IPSAS implementation.

3.5.2. Stakeholder Perceptions

Stakeholder perceptions of IPSAS implementation were examined to assess external evaluations of institutional progress. The distribution of responses is presented in Table 7.

Table 7 Stakeholder Perception of IPSAS Implementation (n = 26)

Implementation Level	Frequency	Percentage
Fully Implemented	4	15%
Partially Implemented	13	50%
Lagging	9	35%

As shown in Table 7, half of the stakeholders perceived IPSAS implementation as partially completed, while a considerable proportion viewed progress as lagging. Only a small minority considered implementation to be fully complete. These findings suggest that, although progress has been made, stakeholders perceive the reform process as ongoing and not yet fully institutionalized.

3.6. Inferential Statistics

3.6.1. Correlation Analysis

A Pearson correlation analysis was conducted to examine the relationship between perceived IPSAS implementation effectiveness and identified implementation challenges. The results are presented in Table 8.

Table 8 Pearson Correlation Between IPSAS Effectiveness and Challenges

Variables	r	p-value
Effectiveness vs Challenges	-0.45	0.021*

*Significant at $p < 0.05$

As shown in Table 8, a moderate negative correlation was observed between IPSAS effectiveness and implementation challenges. This indicates that higher levels of perceived implementation effectiveness are associated with fewer reported challenges. The relationship was statistically significant at the 5% level.

3.6.2. Independent Samples T-Test

An independent samples t-test was conducted to examine differences in IPSAS familiarity between academic and administrative staff. The results are shown in Table 9.

Table 9 Differences in IPSAS Familiarity

Group	Mean	SD	t-value	p-value
Academic Staff	4.1	0.6	2.05	0.042*
Administrative Staff	3.3	0.9		

*Significant at p < 0.05

The results indicate that academic staff reported significantly higher familiarity with IPSAS compared to administrative staff (t = 2.05, p = 0.042), suggesting a meaningful difference in awareness levels between the two staff groups.

3.6.3. ANOVA

A one-way ANOVA was conducted to examine differences in perceptions of IPSAS implementation across departments. The results are presented in Table 10.

Table 10 Differences in Perception Across Departments

Source	F-value	p-value
Between Groups	4.21	0.016*

*Significant at p < 0.05

The ANOVA results indicate a statistically significant difference in perceptions across departments (F = 4.21, p = 0.016), suggesting that departmental affiliation influences staff perceptions of IPSAS implementation.

3.6.4. Normality Test

The Shapiro–Wilk test was used to assess the normality of the data for IPSAS familiarity and challenges. Results are presented in Table 11.

Table 11 Shapiro–Wilk Test

Variable	W	p-value
Familiarity	0.97	0.081
Challenges	0.91	0.024*

The results indicate that the familiarity variable is normally distributed (p = 0.081), whereas the challenges variable deviates from normality (p = 0.024), suggesting caution when applying parametric tests for this variable.

3.7. Multiple Regression Analysis

Multiple regression analysis was conducted to identify predictors of IPSAS implementation. Table 12 presents the results.

Table 12 Predictors of IPSAS Implementation

Predictor	β	SE	t-value	p-value
Training Adequacy	0.35	0.08	4.12	0.001*
Institutional Support	0.29	0.10	2.87	0.014*
Technological Infrastructure	0.13	0.12	1.09	0.223

*Significant at p < 0.05

Training adequacy and institutional support were shown to be significant predictors of IPSAS implementation, while technological infrastructure was not found statistically significant.

4. Discussion

4.1. Awareness and Training in IPSAS Implementation

The findings indicate that IPSAS awareness among staff at ZCAS is generally high (80%), although a significant minority (20%) remains unfamiliar with the standards. This uneven distribution of knowledge suggests that IPSAS adoption has not yet reached full institutional penetration. From a diffusion perspective, the presence of knowledgeable groups alongside less-informed staff reflects partial diffusion rather than complete institutionalization. Similar patterns have been reported in public sector reforms where adoption progresses unevenly across organizational units [28].

Although most trained staff rated IPSAS training positively, qualitative evidence revealed that training delivery was largely theoretical, with limited emphasis on applied financial reporting tasks. Staff reported difficulties in translating conceptual knowledge into practice, particularly in accrual-based recognition and classification issues. These findings reinforce earlier arguments that IPSAS implementation requires practice-oriented and context-specific training rather than abstract instruction alone [29-30].

The regression results further confirmed that training adequacy significantly predicts implementation success. This aligns with prior studies showing that investment in human capacity strengthens reform outcomes, especially in developing country contexts [31]. The results therefore emphasize that technical competence, rather than mere exposure to standards, is central to successful IPSAS operationalization.

A statistically significant difference in familiarity between academic and administrative staff was also observed. Academic staff demonstrated higher IPSAS familiarity, likely due to their engagement with international accounting standards through teaching and research. Comparable findings have been reported by Oulasvirta [32] and Gomes et al. [33], who found that exposure to academic discourse enhances standard awareness. This suggests the need for targeted professional development interventions for administrative personnel to ensure balanced implementation across departments.

4.2. Implementation Challenges

Both staff and stakeholders largely perceived IPSAS as only partially implemented. Resource constraints and technological limitations emerged as primary barriers. These findings are consistent with evidence from developing country settings where infrastructural and financial constraints slow public sector accounting reforms [34-35].

However, this study extends existing literature by highlighting that resource limitations at ZCAS are not purely financial but also strategic. Competing institutional priorities and delayed funding flows were reported as contributing factors. This suggests that implementation challenges are embedded within governance and prioritization structures, rather than being solely technical deficiencies.

A moderate negative correlation between perceived challenges and IPSAS effectiveness was identified (r = -0.45, p < 0.05). This confirms prior empirical findings that reform effectiveness declines as implementation barriers increase [36]. The statistical relationship underscores the importance of systematically addressing operational constraints to improve compliance outcomes.

Interestingly, technological infrastructure was not a statistically significant predictor of implementation success in the regression model. This diverges from earlier studies that emphasized digital systems as central to IPSAS transition [37].

The finding suggests that, within the ZCAS context, human and institutional factors currently exert stronger influence than technological inputs. This supports contingency-based interpretations of reform implementation, where contextual variables shape reform drivers differently across institutions [38].

4.3. Communication and Institutional Support

Communication was identified as a critical weakness in the IPSAS implementation process. A substantial proportion of staff perceived communication regarding implementation strategy as inadequate or unclear. Change management literature emphasizes that reform success depends on consistent communication and role clarity [39]. The observed communication gaps likely contributed to uncertainty regarding implementation progress and expectations.

Institutional support emerged as a statistically significant predictor of IPSAS implementation. This finding aligns with previous research emphasizing leadership commitment and policy alignment as determinants of successful public sector reform [38]. Without strong institutional backing, technical reforms often stagnate despite staff awareness and training.

The findings also reflect institutional theory arguments that reforms require internal legitimacy and structured reinforcement mechanisms to become embedded in organizational routines. Weak communication structures may therefore slow normative internalization of IPSAS practices.

4.4. Role of External Stakeholders

Stakeholders demonstrated high familiarity with IPSAS and generally positive training experiences. Their role appears central in providing oversight and technical direction. However, the study reveals that successful implementation depends on sustained engagement between ZCAS and external factors such as the Zambia Institute of Chartered Accountants (ZICA) and the Ministry of Finance.

This reinforces prior arguments that IPSAS implementation in developing countries is shaped by inter-institutional collaboration and national-level support mechanisms [40,34]. The findings further suggest that IPSAS reform is not purely technical but also institutional and political in nature, requiring alignment with broader public financial management frameworks.

5. Conclusion

This study assessed the implementation of International Public Sector Accounting Standards (IPSAS) at the Zambia Centre for Accountancy Studies (ZCAS) and examined the institutional, human, and structural factors influencing adoption. The findings reveal that although awareness of IPSAS is relatively high among both staff and stakeholders, implementation remains partial and uneven across departments.

Training adequacy and institutional support emerged as the most significant determinants of implementation success. Staff who received structured and practical training demonstrated stronger familiarity and engagement with IPSAS, confirming that capacity-building is central to reform effectiveness. However, gaps in practical application, inconsistent communication, and varying levels of departmental preparedness continue to hinder full institutionalization.

Contrary to common assumptions in public sector reform discourse, technological infrastructure was not a statistically significant predictor of implementation in this context. Instead, human capacity, leadership commitment, governance prioritization, and communication structures were more influential. This suggests that IPSAS implementation at ZCAS is primarily shaped by institutional and organizational dynamics rather than purely technical constraints.

The study underscores the strategic importance of strengthening continuous professional development, enhancing internal communication, reinforcing leadership commitment, and fostering sustained collaboration with external stakeholders. By addressing these areas, ZCAS can improve financial reporting accuracy, transparency, and accountability while reinforcing its national role in advancing public sector accounting reform in Zambia.

Overall, the study provides institution-level evidence that contributes to the broader understanding of IPSAS implementation within developing country contexts and offers practical guidance for strengthening reform outcomes at ZCAS and similar public sector institutions.

Compliance with ethical standards

Disclosure of conflict of interest

The author, Mwansa M'lamfu Mwansa, declares that there are no conflicts of interest regarding the publication of this paper. The author confirms that there are no financial, institutional, or personal relationships that could have influenced the work reported in this study.

Statement of ethical approval

Ethical approval for this study was obtained prior to data collection. Institutional authorization was granted to conduct the research at the Zambia Centre for Accountancy Studies (ZCAS). The study adhered to established ethical guidelines for research involving human participants, including confidentiality, voluntary participation, and protection of participant rights.

Statement of informed consent

Additionally, informed consent was obtained from all individual participants included in the study. Participants were informed about the purpose of the research, their right to withdraw at any stage without penalty, and the confidentiality of their responses. No personal identifiers were disclosed in the reporting of findings.

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