

# Exploring Modalities Best Suited for Public Private Partnership Concession Agreements in the Education Sector of Zambia

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## Abstract

The Zambian public sector has been known to face several challenges in the provision of infrastructure among others education infrastructure. Thus, the introduction of Public Private Partnerships (PPPs). In as much as the education sector of Zambia can benefit tremendously from the PPP initiative, poorly designed PPP concession agreements risk worsening existing educational sector challenges. The objectives of the paper were to establish the extent of application of PPPs in the Zambian education sector, identify the challenges surrounding concession agreements in PPPs in Zambia, and suggest the right modalities that could be applied to PPP concession agreements in the Zambian education sector. Both secondary and primary data was collected to establish that no private sector entity has had or is currently engaged in an ongoing concession with the Government in the procurement of infrastructure for schools. Challenges surrounding concession agreements in PPPs included contract misspecifications, lack of contractual flexibility, opportunistic behaviour by either party, and shielded concession agreement creation and process. In view of the foregoing, right modalities that could be applied to PPP concession agreements in the Zambian education sector include proper risk allocation, adequate concession period, clear allocation of roles and responsibilities, and inclusion of stabilization clauses.

**Keywords:** Concession agreement, education sector, public private partnership, Zambia

## 1. Introduction

Infrastructure development is central to the progress of any country as it drives economic growth, increases productive capacity, and sustains development (Abdullahi & Sieng, 2023; Kumo, 2012). Governments in developed and developing countries have traditionally been responsible for infrastructure delivery and fund infrastructure projects through public budgets (Vives, Benavides, & Paris, 2010; Younis, 2014; Wentworth & Makokera, 2015; Lu, Chao, & Sheppard, 2019). However, they face limitations in mobilizing public funds for infrastructure projects. They are unable to address the infrastructure backlogs, let alone develop new assets, especially in least developed countries (Wentworth & Makokera, 2015). This is evident especially for Africa, as it has a substantial existing deficit in infrastructure financing that is estimated to be between USD 68 billion and USD 108 billion annually (Wentworth & Makokera, 2015). This deficit greatly holds back socio-economic development on the African continent.

One of the African countries facing this deficit in infrastructure financing is Zambia (Cheelo & Liebenthal, 2020). Like other developing countries, efforts to finance and build physical assets in Zambia is driven and funded by the state. However, the Zambian public sector has been known to face several challenges in the provision of infrastructure (Simumba, 2018). Some of these challenges include erratic power supply, fuel scarcity, water shortages, shortage and/or unreliable healthcare services, unbalanced educational system, poor roads, and inconsistent telecommunication services (Mwanaumo, Chisumbe, Mbewe & Mambwe, 2020). Additionally, to finance infrastructure projects, the Zambian government has had to borrow extensively from China, development banks and the commercial Eurobond market, leading it to a debt crisis (Ofstad & Tjønneland, 2019). Yet, despite the high debt, Zambia still has an infrastructure financing gap (Mwanaumo et al., 2020). Given the extent of the infrastructure finance gap, one way it can be closed is with increased investment from the private sector in the form of corporations and institutional investors (Bielenberg, Kerlin, Oppenheim & Roberts, 2016). Therefore, Zambia has made efforts alongside other Southern African

Development Community (SADC) countries, to create policy and legal frameworks to enable private sector involvement in infrastructure financing and development (OECD, 2013). This has been done through Public Private Partnership's (PPP) (Khatleli, 2020). PPPs are attractive as they allow governments to focus on regulation, policy, and planning, while the private sector, in turn, concentrates on improving the efficiency and quality of services (Mwanaumo et al., 2020). Thus, the introduction of Public Private Partnerships (PPPs) in the procurement of infrastructure has been a major turning point. In as much as the education sector of Zambia can benefit tremendously from the PPP initiative, poorly designed PPP concession agreements risk worsening existing educational sector challenges (Patrinos, Barrera-Osorio, & Guáqueta, 2009; Aslam, Rawal, & Saeed, 2017). It is estimated that poorly designed contracts are one of the main reasons more than fifty percent of concession agreements between governments of developing countries (including Zambia) and private corporations end up either being renegotiated or cancelled (Miranda, 2007; Guasch, Benitez, Portables, & Flor, 2014; GRZ, 2016; Sánchez, 2020). These contract renegotiations are costly in terms of time and resources (Guasch, Benitez, Portables, & Flor, 2014). Therefore, to ensure success in the education sector, issues affecting PPP implementation through their concession agreements must be addressed (Ismail & Haris, 2014; GRZ, 2016). The objectives of this study are to: (i) establish the extent of application of PPPs in the Zambian education sector; (ii) identify the challenges surrounding concession agreements in PPPs in Zambia, and suggest the right modalities that could be applied to PPP concession agreements in the Zambian education sector.

## 2. Literature Review

The term 'public private partnership(s)' ('PPP(s)'), while universally used, has different contemporary meanings and manifestations (English, 2006). For some it means a cooperation between private and public participants; this cooperation being of a permanent nature and in which participants provide services or develop mutual products whilst sharing profit, expenses, and risks (Rakić & Rađenović, 2011). Whilst for others a PPP is not only a cooperation between public and private actors, but more of an institutionalized form of cooperation, based on each actor's own indigenous objectives, as they work together towards a joint target (Jamali, 2004). A PPP can also be termed as an agreement between the public and the private sector, in which some of the tasks and services that are primarily the responsibility of the public sector, are provided by the private sector under a clear agreement of shared objectives (Fleta-Asín, Muñoz, & Rosell-Martínez, 2020). In the Zambian context and in accordance with the Public Private Partnerships Act, No. 14 of 2009, PPPs are defined as a contractual agreement shared between a public and a private entity, through which the private entity has the responsibility of performing part of the Government's organization service delivery functions, and also assumes the associated risks of doing so for a considerable period of time (GRZ, 2016). In return, the government could directly pay the private entity or enable it to be remunerated by collecting fees from service users (GAO, 2008).

For decades, the involvement of the private sector in public infrastructure management and financing has been accomplished in the form of PPPs more often for economic infrastructure (Oktavianus, Mahani, & Meifrinaldi, 2018). However, in a bid to improve quality of life and add to human capital, countries have embraced the implementation of PPPs for social infrastructure in sectors such as education (Oktavianus., et al., 2018). For the public sector, this is a welcomed move as the demand for educational services especially across Africa is rising at a faster rate than governments can supply (Osuji, Mafara, & Chagbe, 2016). On the other hand, this is also an overall shift from the general perception that the private sector is unwilling to invest in long term, risky, and illiquid assets, which is specifically what social infrastructure investments are (Vives et al., 2010). And even though, financial viability of projects is a leading motivation for the private sector to engage in PPPs, it is not the only reason (Osei-Kyei & Chan, 2017).

Although the core emphasis of PPPs is the partnership between the public and private sector, they continue to be shaped by important dynamics of multi-level collaborations that need to be coordinated (Siemiatycki, 2012). Issues like raising of funds, ensuring supply, linking various participants financially and legally, and producing and marketing products depend on the well-established financial and legal structure of a PPP (Chowdhury, et al., 2011). According to the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) (2008), the structure of a PPP project depends on the number and types of partnerships involved. Thus, a PPP structure can be quite complex as it involves several contractual arrangements between several parties such as the contractors, financiers, engineers, project operator, suppliers, project sponsor, third parties (such as an escrow agent), customers and the government (UNESCAP, 2008). However, the core element of a PPP structure is the contract between the government authority and the private partner or project company (APMG International, 2020). This contract is referred to as a concession agreement (Kumar, 2019; APMG International, 2020). A concession agreement is a contract that provides a private company the right to operate a specific business within a government's jurisdiction and is based on specific terms (Kenton, 2020).

Generally, "a concession is a grant" (Idornigie, 2006, p. 3). The host government grants the private company (concessionaire, sponsor or promoter) the right to either finance, design, build, operate and/or maintain an infrastructure

project under a PPP model over a period of time known as a concession period (Loosemore, 2006; Miranda, 2007; Alfen, Kalindindi, Oguniana, & Wang, 2009; Kumar, 2019). The concession agreement will therefore define the relationship between the involved parties, their respective rights and responsibilities, allocate risks, and provide mechanisms for dealing with change (Alfen et al., 2009; The World Bank, 2017).

### **3. School Infrastructure in the Zambian Education Sector**

As PPPs continue to change the face of infrastructure in educational facilities around the world, lack of access to adequate infrastructure continues to characterize the face of public educational facilities in Zambia (PMRC, 2019). This is especially prominent in rural areas where access to quality education is already far-fetched due to the long distances that children must walk and at times even cross wetland areas to access school infrastructure (Manda, 2014; James, 2018).

According to the Curriculum Development Centre (2013), Zambia's education system was initially made up of primary education (Grades 1 to 7), secondary education (Grades 8 to 12) and tertiary. However, with the introduction of Early Childhood Education (ECE) by the Ministry of Education, primary education now runs from early childhood up to grade 7 (SACMEQ, 2010). This transition has brought out a lot of challenges such as inadequacies in infrastructure, institutional and human capacity (SACMEQ, 2010). Furthermore, considering that there is still approximately 9,050 primary and 1,117 secondary schools with a total of 68,278 classroom structures, of which 5,870 are incomplete and 5,314 are temporary; the Government planned that between 2015 and 2022, it was going to build 3,000 classrooms at ECE level, 13,000 classrooms at primary school level and approximately 4,000 classrooms at secondary school level (Nalishebo, 2021). However, their completion is yet to be seen.

For children living on the plains of Zambia, the situation is particularly more challenging as they face an additional unique challenge of damage to school infrastructure caused by climate change (James, 2018). In 2021 alone, over 446 schools around Zambia were reported to have been torn off by heavy rains and winds (Kunda, 2021). This is a growing problem as damage mostly by floods has over the years caused several schools to close for extended periods of time. Examples of such schools as provided by Lwando (2022) were: Naluvwi basic school and Namunde primary school in Mumbwa district, Central Province; and Kaungamashi, Kashukwa, Beshe, Nalushulu, Shilukoma, Mwanzi Lisilu, and Kapoola basic schools in Shangombo district, Western Province.

Although climate change is the cause of the damage, poor workmanship, and a lack of consistent preventive maintenance on school infrastructure instigated the situation (Kunda, 2021). The lack of consistency in maintenance is especially seen in provinces like Luapula that has schools that have been standing for decades without maintenance and are now in a deplorable state and urgently need refurbishment and/or renovations (Chisha, 2017).

Among the worst affected schools in the province are, Lwela Secondary School, Kawambwa Boys Technical Secondary School, and Mabel Shaw Girls Secondary School (Chisha, 2017). In some parts of these schools, roofs have been blown off following heavy rains, and these schools are also faced with persistent water and sewer challenges causing pupils to use dilapidated pit latrines (Chisha, 2017). According to Lwando (2022), one of these schools, Lwela Boarding School was reported by then to have had no power since its construction in 1935. The problem extends to North-western province where similar plights were made before the 2021 general elections, whilst the head of state at the time, took a two-day working visit to the province (Kyambalesa, 2021).

With the realization that government alone, cannot address all the infrastructure challenges in the education sector, it has called on the private sector to participate in the construction of schools and other needs among communities through PPPs (Manda, 2014; SABER, 2016; Lusaka Times, 2017).

### **4. Research Methodology**

The paper involved the collection of both secondary and primary data. Secondary data was gathered from several published sources such as journal articles, books, technical reports published by the Zambian Government and international organizations such as JICA, PMRC, PPIAC, UNICEF and the World Bank. Primary data was collected during a bigger study conducted from January 2022 to April 2022. In this study, data was collected from fourteen (14) respondents who included two (2) from Infrastructure Department in the Ministry of Education; two (2) from Public Private Partnerships (PPP) Unit in the Ministry of Finance and National Planning (MOFNP); two (2) from Public Infrastructure Department in the Ministry of Infrastructure, Housing and Urban Development; two (2) from the Copperbelt University; three (3) from National Council for Construction; and three (3) from Engineering Department in the Ministry of Local Government and Rural Development. Purposive sampling was used to select the respondents, and semi structured interviews were used to collect data from the respondents. Between November and December 2023, and January 2024, email questionnaires were used to collect data from one (1) employee from each of the six (6) institutions visited in 2022. This was done to verify data collected in 2022.

## 5. Results and Discussion

### 5.1 Extent of Application of PPPs in the Zambian Education Sector

According to research findings, so far, no private sector entity has had or has an ongoing concession with the Government in the procurement of infrastructure for schools (PPP-Unit, 2022). Nonetheless, there have been some once off infrastructure donations and short-term partnerships. Over the years several public schools in Zambia have received assistance in terms of grants, supplies and infrastructure from the private sector (Manda, 2014; Lwando, 2022). In terms of infrastructure, different private companies such as Toyota Zambia, non-governmental organizations (NGOs) such as World vision and mining companies such as Kansanshi have all been cited as having had constructed staff houses, classroom, and ablution blocks for schools across all parts of Zambia (Lwando, 2022; World Vision International, 2021). Although several examples of these schools are listed as beneficiaries in literature, the benefit is once off.

In fact, research findings confirmed that majority of the assistance is philanthropic and originates firstly from NGOs, faith-based organizations, and then private companies. Thus, the extent of assistance is solely at the discretion of the donor and once the donation has been made, maintenance and management are left back in the hands of the Government. This explains further findings from the field survey that indicated that so far, no private sector entity has had or is currently engaged in an ongoing concession with the Government in the procurement of infrastructure for schools (PPP-Unit, 2022). Such a lack of a long-term partnership is unfortunate especially because of the huge infrastructure gaps in the sector (Nalishebo, 2021).

Despite the foregoing situation, the PPP unit under MOFNP has remained open to receive PPP project proposals from private sector entities to deliver quality infrastructure across all sectors, including education. Currently, because of financial limitations, the unit cannot solicit but can only receive unsolicited proposals from private sector partners (PPP-Unit, 2022). Even so, despite the lack of unsolicited proposals for infrastructure projects in the education sector, the Zambian government has continued to call on private sector partners to engage in the provision of infrastructure for schools through PPPs (ZDA, 2013; Lusaka Times, 2017).

### 5.2 Challenges Surrounding Concession Agreements in PPPs

The foregoing section shows that no private sector entity has had or has an ongoing concession with the Government in the procurement of infrastructure for schools. PPPs in Zambia show prominence in the energy and transport sectors (Lwando, 2022). This is specifically for electricity and road infrastructure, which according to Kaur & Kaur (2018), are perfect examples of economic infrastructure. However, there seems to be an unrecognizable need of PPPs in other sectors such as the education sector, where infrastructure in schools and universities continues to be inadequate and in a deplorable state, and the budget allocation continues to dwindle downwards, limiting funding to the sector (Chisha, 2017; UNICEF, 2019). The implementation of PPPs in Zambia has gone without its own set of challenges (Muleya, Zulu, & Nanchengwa, 2019; Khatleli, Khatleli, 2020). In fact, it has been a challenge to attract private sector investment especially on social infrastructure projects such as those in the health and education sectors (ZDA, 2013). The challenges are explained as follows.

#### 5.2.1 Contract Misspecifications

A review of literature from Idornigie (2006) and Iossa, Spagnolo, & Vellez (2007) provided four causes of contract misspecifications. These are output requirements not being clearly described, output specifications being inconsistent with the infrastructure needs that PPPs intend to satisfy, public administrators lacking time and resources to gather all necessary and correct information for the concession agreements, and exclusion of advisory units (i.e. PPP units) during PPP concession agreement drafting stage.

Amongst these, field survey results ranked lack of time and resources hindering public administrators from gathering all necessary and correct information for the concession agreement as the leading cause of contract misspecification, followed by output requirements being inconsistent with PPP infrastructure needs, then output specifications being unclear and least being exclusion of advisory units from the PPP concession agreement drafting stage.

Similarly, two consequences of contract misspecifications were identified from Iossa et al. (2007) and Adler, Pittz, & Meredith (2016). These were that contract misspecifications would result in an inadequate risk allocation on the concession agreement and that contract misspecifications could promote future contract renegotiations.

#### 5.2.2 Lack of Contractual Flexibility

Based on literature reviewed, concession agreements lack contractual flexibility because of their failure to accommodate future emerging needs of the public and due to the setting of concession periods to a fixed length (Iossa et al., 2007; Carbonara, Costantino, & Pellegrino, 2014). However, Iossa et al. (2007) further argued that setting of a

concession period to a fixed length can also result in the setting of an unrealistic concession period; and according to PPPLRC (2020), in order for concession agreements to accommodate future emerging needs, the risk of emerging changes in public needs should be borne by the public sector party.

Both setting the concession period to a fixed length and failing to accommodate emerging future needs of the public cause concession agreements not to be flexible. Lack of flexibility when concession agreements are set to a fixed length, also increases the chance of setting an unrealistic concession period.

On the other hand, findings show the effect that transferring the risk of emerging future changes in public needs to the public sector would have on successfully managing emerging needs in the concession agreement. This means there is no substantial evidence to prove a relationship and therefore, transferring the risk of emerging future changes in public needs to the public sector does not have any effect on successfully managing emerging needs in the concession agreement. Therefore, this instead validates the argument that in order to accommodate future emerging changes in public needs, the length of the concession period must not be too long that the needs of the public change in the process (Schachter, Daniel, & Liu, 2017; Jin, Liu, Liu, & Udawatta, 2019).

### 5.2.3 Opportunistic Behaviour by either Party

Three sources of opportunistic behaviour were derived from literature reviewed, these are: when negotiations are biased towards the party leading the negotiation, when there is a lack of public policies to support disclosure of project information, when there is a submission of overly aggressive bids (Guasch et al., 2014; Xiong & Zhang, 2016; Bloomgarden, 2020; Sánchez, 2020). The result is that opportunistic behaviour leads to undefined roles and overlapping responsibilities (Idornigie, 2006; Martorana, 2014; Water Integrity Network, 2019).

Research findings show that, the highest source of opportunistic behaviour was found to be biasness of negotiations towards the party leading the negotiation, followed by submission of overly aggressive bids by bidders and then the absence of public policies for disclosure of project information.

### 5.2.4 Shielded Concession Agreement Creation and Process

Miranda (2007) defined a shielded concession agreement as one in which either of the parties takes on the dominant position and then restricts the participation of the other party. From literature reviewed, there are two areas where concession agreements are shielded, and these are the omission of private sector in decision making and the omission of general public's view and input (Felsing, 2008; Carbonara, et al., 2014). Then there are three consequences of shielding concession agreements, and these are that it creates room for corruption, it also creates room for short sighted decision making, and it creates room for inefficient tariff setting (Miranda, 2007).

However, findings were that none of the two causes, the omission of private sector in decision making and the omission of general public's view and input, was more significant than the other. Therefore, the difference could only be seen on their relationship to each of the consequences of shielding concession agreement creation and implementation/process.

Findings were that of the two causes, only the omission of the private sector in key decision-making had a significant effect on each consequence. Therefore, when the private sector is omitted in key decision making, the highest consequence is that room is created for short sighted decision making, followed by corruption and then inefficient tariff setting.

## 5.3 Modalities to Concession Agreements in PPPs in the Education Sector

As a result of the foregoing challenges, the implementation of PPP concession agreements in other sectors (that is, excluding education sector) has failed to live up to its full potential (Miranda, 2007; Kumar, 2019). These issues if not addressed, can adversely affect the concession agreements in PPPs in the education sector. Therefore, highlighting the need to select proper modalities to concession agreements in PPPs in the education sector that according to Vives, et al. (2010) can attract long term investments, enhance the viability of the investments, increase the number of bankable PPP projects, and reduce backlash from possible failures. In this regard, the following are proposed modalities to concession agreements in PPPs in the education sector.

### 5.3.1 A Proper Allocation of Risks

All the 14 respondents from various institutions agreed that proper allocation of risks is key in concession agreements. However, the allocation of risks is often handled poorly on PPPs as huge components of it are found missing from agreements where especially renegotiations are unavoidable (Lwando, 2022). Research findings revealed that this is because of contract misspecifications caused by public administrators lacking time and resources to gather all necessary and correct information for the concession agreement. Therefore, based on secondary and primary data, the following considerations can be made to successfully attain a proper risk allocation on concession agreements:

- There must be acknowledgment and an understanding between contracting parties that a proper risk allocation

can improve project performances by reducing the likelihood of contract renegotiations. This will create the sense of responsibility towards adequate risk allocation and an intentional partnership environment where power and responsibility are shared towards a common purpose (Haque, 2004).

- Risks must be identified early in the contract drafting stage to reduce the surprises that may come along the way during a project.
- The party with the ability to reduce risks should be provided with incentives to do so. Also the risk-bearing capacity of each party is important and must be motivated.
- The party with more control over activities that could lead to the risk should not always be given responsibility for that risk. This is true because theoretically risks being distributed based on control over activities leading to the risk may seem to work, but in practice this rule is difficult to implement as participants usually opt to distance themselves as much as possible from what they would like to risk.
- The distribution of risks according to corporate game theory should also be avoided as it has a negative effect on a proper allocation of risks. This is because the party given a larger share may not always have the experience and skill to handle the risk.

### 5.3.2 An Adequate Concession Period

According to research findings the leading area where concession agreements lack contractual flexibility is in the setting of a concession period to a fixed length. Furthermore, a review of the effects of the challenges (lack of contractual flexibility being among them) impeding the application of concession agreements in the Zambian context, revealed an unrealistic concession period as a common cause of contract renegotiations and cancellations. This all ties together and is in agreement with the sentiments of the Government of the Republic of Zambia (2016) that the setting of the concession period to a fixed length in many instances has led to obtaining unrealistic concession periods which have led to concession agreements facing renegotiations and even cancellations. Therefore it is not just about including a concession period in concession agreements but ensuring it is realistic or in this case, adequate.

Another area that concession agreements lack contractual flexibility is in their response to dynamic changes in user needs (Iossa et al., 2007). During the span of the concession, users may have changes in their needs and preferences, and depending on the length of the concession, this could render a project either more relevant or obsolete. Thus, similar to unrealistic concession period setting, changes in user needs in the presence of rigid contracts, have at times triggered very costly contract renegotiation processes (Iossa et al., 2007). Nonetheless regardless of whether the cause of the renegotiation or cancellation was due to setting of an unrealistic concession period or setting a concession period that does not consider user changes emerging over the length of the concession, findings show that a solution to this is the setting of an adequate concession period.

However, several factors come to play when determining the adequacy of a concession period. Research findings revealed the following as key considerations:

- The length of the concession period should be enough to allow for the private partner to recoup their investment as well as make a profit as quickly as possible.
- The length of the concession period must be enough for the public sector to address public concerns before they quickly evolve over time.
- The concessionaire should be allowed to bid for the duration of the concession period alongside other project aspects.

In addition, different price determination models incorporating these factors are available to help in the setting of adequate concession periods. Some that are reviewed in literature are: the price determination model created on the basis of risk allocation and real options (Guofeng, Qingjuan, & Kedi, 2018); a quantitative model to determine a proper concession period with the ability to protect the interests of the government and private investors (Li & Shen, 2000); a simulation based model formulated to optimize concession periods for PPP schemes (Ng, Xie, Cheung, & Jefferies, 2007); a model for calculating a concession period that is aimed at setting a 'win-win' solution by allowing for a fair risk sharing between the concessionaire and the government (Carbonara et al., 2014); a model for determining the optimal project life span and concession period of BOT projects (Zhang, Bao, Wang, & Skitmore, 2016); develop a concession period determination process which can help governments to make better decisions (Jin et al., 2019).

### 5.3.3 A Clear Allocation of Roles and Responsibilities

Roles and responsibilities discussed are institutional roles and responsibilities that according to Association for Project Management Group (APMG) International (2020), specify which entity will play what role at each step. Research findings revealed that a clear allocation of these roles and responsibilities must be specified as early as at the tender

phase. This is done to enable government effectively manage PPP contracts by avoiding overlapping and undefined roles and responsibilities as the project proceeds (The World Bank, 2017; APMG International, 2020).

When roles and responsibilities are undefined or overlapping the environment is such that there is an absence of clearly defined roles and responsibilities for several employees; there is a lack of clear definitions, guidance or standard operating procedures available for several processes; there are unclear reporting lines and mandates of key control positions; responsibilities for supervision are not assigned to specific positions; and board members, managers, and staff repeatedly act outside their roles and even bypass procedures (Water Integrity Network, 2019).

Therefore, based on field survey results, among the effects of overlapping and undefined responsibilities are that they provide leeway for stakeholders to engage in contract renegotiations, they provide leeway for stakeholders to engage in disputes and they provide leeway for stakeholders to engage in opportunistic behaviour.

#### 5.3.4 Inclusion of Stabilization Clauses

One of the challenges identified earlier is that if a concession period is too long the needs of the public may change before the project ends. Therefore, to protect especially the private sector stabilization clauses can be included as a form of assurance that the investment will not be subject to unpredictable and costly user preference changes or changes the law (Lwando, 2022). In fact, more than 60% of respondents agree to this. Therefore, the government can either freeze the law (include freezing clauses), compensate for the cost of complying to the law (include economic equilibrium clauses), or a combination (include hybrid clauses) of both (James & Shanagher, 2021).

## 6. Conclusion and Recommendations

Findings established that no private sector entity has had or is currently engaged in an ongoing concession with the Government in the procurement of infrastructure for schools. Challenges surrounding concession agreements in PPPs included contract misspecifications, lack of contractual flexibility, opportunistic behaviour by either party, and shielded concession agreement creation and process. In view of the foregoing, right modalities that could be applied to PPP concession agreements in the Zambian education sector include proper risk allocation, adequate concession period, clear allocation of roles and responsibilities, and inclusion of stabilization clauses.

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### Authors contributions

Lwando and Dr. Mushingwe were responsible for the study design and revising. Both authors were responsible for primary and secondary data collection as well as drafting the manuscript. Lwando drafted the main part of the manuscript and Dr. Mushingwe the other parts. Both authors read, revised and approved the final manuscript.

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

### Data sharing statement

No additional data are available.

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