Do transparency and accountability enhance regulatory compliance in public procurement? Evidence from Tanzania

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Abstract

With an increasing emphasis on ethical practices among public procurement practitioners, transparency and accountability will remain critical in ensuring effective and efficient Received in revised form procurement operations. This paper examines the influence of transparency and accountability in enhancing regulatory compliance in public procurement. This study was quantitative in nature and utilised a quantitative analysis approach to analyse data from 202 public procurement practitioners in Dodoma, Tanzania. The study applied structural equation modelling to examine the relationship between transparency, accountability, and regulatory compliance in public procurement. The results indicate a positive and significant relationship between transparency and regulatory compliance (6 = 0.148, p = 0.048). The study also reveals that accountability is a significant and positive factor that promotes regulatory compliance ($\beta = 0.366$, p < 0.001). The study's findings offer valuable insights for public procurement practitioners to establish well-defined standards of practice concerning transparency and accountability in procurement operations, with the aim of improving regulatory compliance. The research contributes to the existing literature on enhancing procurement compliance in the public sector by exploring the role of transparency and accountability in procurement regulatory compliance in Tanzania.

Received 10 April 2023 21 November 2023 Accepted 22 November 2023

> Keywords: Transparency Accountability Procurement Regulatory compliance Public procurement

I. Introduction

Governments worldwide utilise public procurement as a means to acquire goods, services, and works in order to fulfil their responsibilities towards their citizens. Globally, public procurement expenditures account for a significant portion of government budgets, with countries spending approximately 9.5 trillion US dollars on acquiring goods and services for procuring entities (The World Bank, 2020). Over 15% of the gross domestic product is attributable to public procurement in the majority of the organisation for economic co-operation and development (OECD) countries (OECD, 2021). In Tanzania, over 70% of the government budget is allocated to public procurement expenditures, making it a significant portion (Changalima et al., 2023). Due to the size of the expenditures, public procurement activities are more tightly controlled and managed (Changalima & Mdee, 2023). The demanding extent of regulatory compliance (compliance with public sector procurement laws) distinguishes private sector procurement from public procurement (Appiah et al., 2023). Therefore, to control public procurement's expenditures, practitioners must follow laws and regulations more strictly.

Yet, compliance with procurement laws and regulations among procuring entities remains unimpressive (Changalima, 2016; Matto et al., 2021; Tinali, 2022). For instance, it was found that 42 local government authorities (LGAs) did not comply with regulation 55(2), 163(4), and 185(1) of the public procurement regulations by making procurements without obtaining the required tender board approval [National Audit Office of Tanzania (NAOT, 2021)]. Likewise, in 2021, a report by the public procurement regulatory authority (PPRA) revealed that a significant number of procuring entities, particularly LGAs, had poor compliance levels, with scores below 60% (PPRA, 2021). Public procurement regulatory compliance has garnered significant attention in both local and international research (Changalima et al., 2022; Sarawa & Mas'ud, 2020). Regulatory compliance is particularly favourable as it promotes good performance and practices in public sector procurement, ultimately improving value for money (Changalima, 2016; Panga, 2023). According to a study by Mrope (2017), the level of regulatory compliance is closely linked to the degree of adherence to the procurement professional code of conduct, which serves as a significant indicator of procurement professionalism.

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Furthermore, there is a body of literature that has investigated how adhering to procurement laws and regulations impacts performance (Mrope et al., 2017; Mutangili, 2021), while some studies have explored different factors influencing the extent of compliance with procurement laws and regulations in public organisations (Kituyi & Makokha, 2020; Sang & Mugambi, 2014). However, the majority of previous studies did not consider the aspects of ethical practices, particularly transparency and accountability in enforcing regulatory compliance. Hence, the extent to which transparency and accountability contribute to improving adherence to public procurement regulations, mostly in emerging nations such as Tanzania, has not been thoroughly investigated (Changalima et al., 2022; Matto, 2021). Transparency and accountability are vital to ensuring high standards of conduct within an organisation (Marijani, 2022), as it allows for open scrutiny and ultimately leads to better quality goods and services. Also, it enables organisation to implement anti-corruption practices to improve the value for money and reduce procurement costs (Muriru & Moronge, 2018). Transparency and accountability can thus promote organisational efficiency and effectiveness by influencing human behaviours toward organisational tasks.

In this regard, it is expected that every procuring entity will sensitise all of its practitioners to adhere to the aforementioned principles while carrying out their primary responsibilities. Drawing from the theory of regulatory compliance, social interactions in organisations may hold substantial sway over the compliance behaviour of individuals (Changalima et al., 2022). Consequently, it is crucial for public procurement practitioners within their respective procuring entities to conform to the directives and wellestablished conduct within organisations. Not adhering to these established standards of conduct can lead to significant losses for the entities involved, as well as the government and the general public. It has been observed that professional codes of conduct have a wide application globally, and organisations that use them effectively see high levels of performance improvement across all functions of the entity. The purpose of adhering to procurement laws and regulations is to enhance the management of public resources (Mrope, 2017). Therefore, when executing their duties, public procurement practitioners are supposed to be accountable and transparent at all times. This study investigated whether transparency and accountability are important in improving regulatory compliance. The aim of this study was addressed through the formulation of the following research questions: -

RQ1: Does transparency enhance regulatory compliance in public procurement?

RQ2: Does accountability enhance regulatory compliance in public procurement?

Therefore, this investigation offers valuable insights to public procurement practitioners to enhance their adherence to laws and regulations. Policymakers can leverage the study findings to establish appropriate procedures that prioritise transparency and accountability in public procurement. This study contributes to the existing literature on the importance of ethical practices and professionalism in public procurement by examining transparency and accountability as fundamental principles for public procurement practitioners.

2. Literature review and hypotheses development

2. I The theory of regulatory compliance

The theory of regulatory compliance proposes, among other things, that psychological and social factors help decide whether or not an individual follows the rules and procedures that have been established (Sutinen & Kuperan, 1999). It provides an important basis for organisations and their personnel to ensure compliance when carrying out the functions of an organisation. Therefore, the theory is taken into consideration to be applicable to the current investigation because it offers a significant basis for understanding the relevance of regulatory compliance (Changalima et al., 2022; Sarawa & Mas'ud, 2020). In this regard, transparency and accountability as essential components of procurement professionalism have the potential to enhance compliance in procurement functions (Mrope, 2017). Based on this theory, regulatory compliance can be well explained with transparency and accountability in such a way that compliance can be enhanced when practitioners act with high integrity to improve accountability and transparency in procurement activities. The theory is relevant because, the Tanzanian public procurement system is regulated by the public procurement act (PPA) and its subsequent amendments, which play a crucial part in overseeing conducts in public procurement [The United Republic of Tanzania (URT, 2022)]. The central focus of the present study lies in unravelling the pivotal role played by transparency and accountability in regulatory compliance within the Tanzanian public procurement. This research delves into the intricate dynamics of how transparency and accountability, as key determinants, exert influence on the adherence to regulatory frameworks governing the procurement processes in Tanzania. In the Tanzanian public procurement landscape, characterized by its unique set of challenges and opportunities, this study seeks to shed light on how a transparent and accountable approach can serve as a catalyst for bolstering regulatory compliance.

2.2 Transparency and compliance with procurement laws and regulations

In recent years, the procurement community has primarily focused on maintaining procurement operations' efficacy by broadening the transparency net in order to reduce corruption (Kim, 2020). Bauhr et al. (2020) contribute to the enhancement of transparency frameworks by elucidating standard procedures that interested stakeholders can employ to foster good governance and ensure compliance. In tandem with public procurement transparency, legal frameworks that should be controlled and calibrated by public organisations could positively influence value for money. For example, in order to improve transparency, the URT made significant changes to the PPA in 2016. Transparency, according to Heald (2018), fosters trust among local and central government incumbents in this regard because it ensures access or freedom for everyone to obtain information about government administration, fostering fair competition. Transparency also fosters a climate of trust among people, allowing them to have more trust in government's and participate in decision-making under the government's auspices. Furthermore, transparency in government institutions through internal audits increases the value of these organisations (Mdee & Mushi, 2021).

Transparency is a central tenet of procurement law and policy. Transparency is essential in this regard, both within and outside the organisational operations (Israel et al., 2019). In Tanzania, transparency within the procurement function can be assessed within the organisation or by an independent external organ to verify regulatory compliance (NAOT, 2022). Procurement transparency increases competition, allowing the organisation to obtain a lower price while also putting practitioners at ease about improving their efficiency and effectiveness in their day-to-day duties (Sama, 2022). Transparency reduces unethical practices such as corruption, embezzlement, and falsification in the implementation of procurement duties because established procedures are followed and public spending on procurement is clearly and legally disclosed to the general public. Considering the necessity for procuring entities to improve compliance in their procurement activities, it is crucial for management to prioritise adherence to current procurement laws by fulfilling all necessary requirements to uphold transparency throughout the procurement process (Masoud, 2022). In this aspect, the study assumes the following based on the role of transparency in the procurement system:

H1: Transparency has a positive influence on regulatory compliance in public procurement

2.3 Accountability and compliance with procurement laws and regulations

Accountability is a contested concept that, despite being widely used in public administration, has yet to achieve a clear definition (Brandsma & Schillemans, 2013). According to Schedler et al. (1999), accountability relates to the obligation of public officials to explain their actions, while enforcement refers to the ability of organisations to impose penalties on those in authority who have infringed their public obligations. Thus, accountability is critical to citizen compliance in a variety of areas, including participation in service delivery, adherence to law and order, and tax payment. Accountability has a positive impact on public trust. Compliance to policies and various initiatives improve when public trust is increased, reducing resistance. Instead of citizens' reluctance dominating relationships between people and authorities, compliance develops and improves the relationships. Accountability is a type of obligation for organisers of public activities to be able to inform and explain what they are doing and answer all queries relating to the steps of decisions and procedures carried out, as well as answerability for the outcomes (Harnovinsah et al., 2020). Improving accountability may reduce non-compliance risks and costs associated with procurement activities. Although research conducted on public procurement in Tanzania has emphasised the significance of accountability in enhancing procurement performance (Israel et al., 2019), there is a dearth of studies focused on enhancing regulatory compliance. Hence, it is worth to hypothesise the following:

H2: Accountability has a positive influence on regulatory compliance in public procurement

2.4 The conceptual model

Figure 1 illustrates the conceptual framework of the study, highlighting the hypothesised relationships (H1 and H2). The research model employs the theory of regulatory framework to empirically examine the relationships between transparency and accountability as predictor variables and regulatory compliance in public procurement as the outcome variable. Therefore, this framework serves as the bedrock for a meticulous empirical examination, delving into the intricate interplay among transparency and accountability - both positioned as predictor variables, and their subsequent impact on regulatory compliance within the realm of public procurement, meticulously designated as the outcome variable.

Ultimately, the outcomes of this study are anticipated to inform evidence-based recommendations, fostering a more effective and efficient public procurement system in Tanzania.

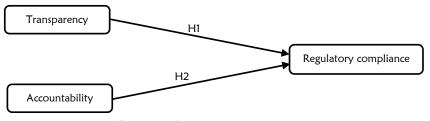


Figure 1. The conceptual framework Source: Figure by authors

3. Methodology

3.1 Study area and research approach

This study was carried out in Dodoma, Tanzania, as the study area, because the area has seen an increase in procuring entities in Tanzania as a result of the relocation of central government offices from Dar es salaam to Dodoma in 2017 (Changalima et al., 2021b). The quantitative approach was used because the study's main objective is to establish relationships between transparency, accountability, and regulatory compliance. According to Bryman and Bell (2011), a quantitative approach is useful for testing relationships between study variables. Therefore, through this approach the study established relationships between transparency and accountability on compliance with procurement law and regulations.

3.2 Research design, sample size and data collection

This study employed a cross-sectional design under which data were collected only once from public procurement practitioners employed in public entities in Dodoma, Tanzania. This design was chosen because it is inexpensive and allows for quick data collection (Setia, 2016). This study targeted procurement practitioners involved in public procurement activities, as they are responsible for ensuring transparency and accountability in the procurement process (URT, 2022). The public procurement practitioners were chosen in a random manner by employing the random numbers generator, the numbers were generated based on a list of practitioners compiled from four surveyed procuring entities (including one LGA, two government ministries and one parastatal organisation) in the study region. In order to enhance generalisability, the inclusion of respondents from various types of procuring entities is crucial. This is because within the country, there are approximately six types of entities, which encompass agencies/authorities, regional administrative secretaries, independent departments and the other three that were included in the present study (Changalima et al., 2021a; Nkunda et al., 2023). As opined by Saunders et al. (2019), random selection of respondents allows researchers to ensure that each potential participant has an equal chance of being selected, thereby minimising the potential for selection bias. Also, survey techniques are useful to researchers for rapidly collecting data in order to conduct a population-specific study. Hence, a structured questionnaire was used to gather information from public procurement practitioners.

The a-priori sample size calculator is a useful tool for determining the minimum required sample size for obtaining desired results in structural equation models (Soper, 2020). It was utilised to calculate the necessary sample size for achieving the desired model outcomes. The recommended minimum sample size of 119 was calculated based on parameters which included an anticipated effect size of 0.3, a desired level of statistical power of 0.8, 3 latent variables, and 15 observed variables, with a probability level of 0.05. To ensure a satisfactory response rate and obtain desirable results, 300 questionnaires were administered using the drop-off and pick-up technique, which helped in determining the adequate response rate (Allred & Ross-Davis, 2011). Consequently, only 208 questionnaires were returned, and after data cleaning, 202 questionnaires were deemed suitable for final analysis. Six questionnaires were excluded due to incompleteness resulting to 67.33% response rate. The respondents had a mean age of 36.53 years, and a majority of them possessed at least a bachelor's degree. Furthermore, they had an average of 8.12 years of experience in public procurement. These findings indicate that the respondents were well-educated and possessed a significant level of awareness regarding the practices and regulations associated with public procurement in their respective procuring entities.

3.3. Measurements, reliability and validity

The variables in the study were measured using previously validated scales. Therefore, five items were used to measure transparency, and five items to measure accountability, as shown in Table 1. These transparency and accountability measures were adapted from a study by Muriru and Moronge (2018). Lastly, regulatory compliance was measured by using five items adapted from Wabu (2021). These items were used in the current study because they are more relevant in Tanzania's public procurement context. Reliability and validity in this study was ensured through Cronbach's coefficients alpha (α) and composite reliability (CR) to assess the internal consistency reliability. Moreover, construct validity in terms of convergent validity and discriminant validity was assessed as the study employed SEM.

All of the values of α and CR in Table 1 indicate that internal consistency reliability was achieved because they are greater than the recommended threshold of 0.7 (Hair et al., 2010; Pallant, 2020). Table 1 shows that convergent validity was achieved because all average variance extracted (AVE) values are greater than 0.5, as recommended for convergent validity (Ab Hamid et al., 2017). Also, the study employed a Fornell-Larcker criterion for assessing the discriminant validity in which the criterion emphasises on the aspect that the square root of AVE of a construct must be greater than the correlation between the construct and any other construct. As presented in Table 2, the discriminant validity was achieved (Fornell & Larcker, 1981).

Table 1. Measurements, internal reliability and AVE

Construct/Items	Factor	AVE	CR	α
T	loadings	0.575	0.871	0.870
Transparency (Trans) In my organisation, we adhere to the higher standards conduct by ensuring there	0.722	0.575	0.871	0.870
is open to scrutiny to enhance quality of goods and services procured (Trans1).	0.722			
In my organisation, we have adopted anti-corruption practices in improving value	0.757			
for money thus reduction of procurement costs (Trans2).	0.737			
The rules which govern the procurement procedures are clearly defined and easily	0.766			
verified to ensure quality of goods and services procured (Trans3).	0.700			
There are no discriminatory policies upon the purchasing decisions, thus, quality	0.822			
and timely delivery of goods and services procured (Trans4).	0.022			
There are open bidding procedures, prompt disclosure of the results to enhance	0.720			
transparency in the procurement process in the organisation (Trans5).				
Accountability		0.593	0.879	0.878
The procurement staff show the commitment to a high standard for professional	0.803			
conduct in the procurement process (Acco1).				
The procurement staff show clear chain of responsibility on handling procurement	0.748			
related challenges (Acco2).				
There are adequate control mechanisms handling complaints from suppliers to	0.731			
enhance quality of goods and services procured (Acco3).				
There is always public review and scrutiny of organisation procurement actions	0.795			
to enhance reduction of procurement costs and quality of goods and services				
procured (Acco4).				
There is disclosure of information and instating participatory monitoring systems	0.771			
to enhance reduction of procurement costs, quality and timely delivery of				
procured goods and services (Acco5).		0.767	0.043	0.041
Regulatory compliance	0.849	0.767	0.943	0.941
The organisation implementing written policies and procedures from PPA	0.849			
(Comp1). The organisation conducting effective training and education to the employees	0.886			
about PPA (Comp2).	0.880			
The organisation conducting internal monitoring and auditing to see the	0.954			
effectiveness of PPA (Comp3)	0.551			
The organisation enforcing standards through well-publicised disciplinary	0.898			
guidelines of PPA (Comp4)	2.070			
The organisation developing effective lines of communication for the success of	0.784			
PPA (Comp5)				

Source: Table by authors

Table 2. Fornell-Larcker criterion for discriminant validity

Constructs/Statistics	CR	AVE	Transparency	Accountability	Compliance
Transparency	0.871	0.575	0.758		
Accountability	0.879	0.593	0.255	0.770	
Compliance	0.943	0.767	0.242	0.403	0.876

Source: Table by authors

3.4 Data analysis

Quantitative data analysis was conducted to establish the effect of transparency and accountability on the regulatory compliance. Specifically, structural equation modelling (SEM) was used to analyse collected data in order to determine the relationships between independent and dependent variables. SEM was used because it is considered to be a more powerful and robust technique for analysing relationships between observed and latent variables (Hair et al., 2021). This multivariate technique was used in the study as the second-generation technique, which considers both latent and observed variables when establishing relationships. Data were analysed using SEM in two ways: confirmatory factor analysis (CFA) for assessing the reliability and validity and the structural model for analysing the relationship between variables. However, it should be noted that before performing a CFA to validate the measurement model, the suitability of the data for factor analysis was assessed by conducting the exploratory factor analysis (EFA). The EFA was crucial for assessing the pattern matrix, bias and determining sampling adequacy by using values of the Kaiser–Meyer–Olkin (KMO) and Bartlett's test of sphericity.

4. Results and discussion

4.1 Common method bias (CMB)

Due to the fact that the study utilised measures and procedures that have the potential to be biased, which may cause the results of the study to be inaccurate. Testing for common method bias was conducted to satisfy on the same. A Harman one-factor test was carried out in order to evaluate the likelihood of the presence of bias (Harman, 1967). If the value of the test is less than 50%, it is understood to indicate that bias was not an issue in the study (Podsakoff et al., 2003). The obtained value was 37.4%, which is less than 50%, and thus it was concluded that CMB was not a concern in this study.

4.2 Descriptive statistics and correlation results

Before examining the measurement and structural models, the study assessed the descriptive and intercorrelations between the variables of interest. The descriptive analysis revealed that accountability received the highest ranking among the responses, with a mean value of 3.624 and a standard deviation of 0.797. Transparency followed closely, with a mean value of 3.386 and a standard deviation of 1.027. Regulatory compliance had a mean value of 3.360 and a standard deviation of 1.150. These findings suggest that public procurement practitioners in Tanzania perceive accountability as a crucial practice within their respective procuring entities, with transparency being a close second (refer to Table 3). These implies the prevalence of accountability and transparency characteristics among public procurement practitioners in most procuring entities in Tanzania. In contrast to the study conducted by Hassan et al. (2021) in Malaysia, where a mean score of 2.54 was observed for public accountability and 2.32 for transparency, indicating a moderate and lowest level of adherence, respectively. Furthermore, when it comes to establishing the standard distribution of data, the skewness and kurtosis values provided in Table 3 are regarded as falling within the suggested limit (Hair et al., 2010). On the other hand, the Pearson correlation analysis revealed significant associations between transparency and accountability (r = 0.223, p = 0.001), transparency and regulatory compliance (r = 0.213, p = 0.002), as well as accountability and regulatory compliance (r = 0.361, p < 0.001) were positive and significant. Since all correlation values were below 0.7, the possibility of multicollinearity in this study was deemed negligible, indicating that the data were free from collinearity (Pallant, 2020).

Table 3. Descriptive statistics and correlation results

Variables	Mean	Std. Deviation	Skewness	Kurtosis	Transparency	Accountability	Compliance
Transparency	3.386	1.027	-0.208	-0.797	1		
Accountability	3.624	0.797	-0.160	-0.315	0.223**	1	
Compliance	3.360	1.150	-0.288	-0.819	0.213**	0.361**	1

^{**.} Correlation is significant at the 0.01 level (2-tailed).

Source: Table by authors

4.3 Measurement model results

Firstly, the EFA results indicated that the pattern matrix yielded three distinct factors, each corresponding to the respective items. Additionally, the KMO measure of sampling adequacy yielded a value of 0.864, surpassing the threshold of 0.5, indicating the suitability of the data for factor analysis (Kaiser, 1974). Moreover, Bartlett's test of sphericity yielded a chi-square value of 2012.601 and df = 105 with a p-value of less than 0.001, confirming factorability (Pallant, 2020). As presented in Figure 2, all standardised

factor loadings are above 0.7 which signifies that the measurement items (observed variables) contribute much in explaining latent variables (Hair et al., 2010). Also, the R² values for each item were above 0.2 and hence all items were retained as they contribute to their specific latent variables (Hooper et al., 2008). Furthermore, the model fit indices for the measurement model are the model chi-square (X²) = 156.483, degree of freedom (df) = 87 at p < 0.01, X²/df = 1.799, comparative fit index (CFI) = 0.965, goodness of fit (GFI) = 0.912, normed fit index (NFI) = 0.925, incremental fit index (IFI) = 0.965, Tucker-Lewis index (TLI) = 0.957, standardised root mean square residual (SRMR) = 0.048, root mean square error of estimation (RMSEA) = 0.063 and PClose = 0.089. These model fit indices are within the recommended thresholds and hence it was concluded that the measurement model was adequate to fit well the data (Hooper et al., 2008; Hu & Bentler, 1999). On the other hand, multicollinearity was not an issue of concern in this study as the value of correlations as presented in Figure 2 are all below 0.80 (Mwagike & Changalima, 2022).

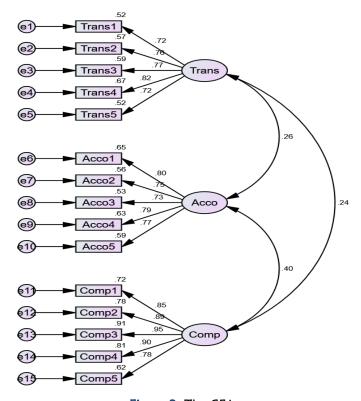


Figure 2. The CFA Source: Figure by authors

4.4 Structural model and hypothesis testing

The study assessed the structural model to test the hypothesised relationships under which the results are presented in Figure 3 and Table 4. Based on the results presented in Table 4, H1 was supported as the results show that transparency and public procurement regulatory compliance are positively and significantly related ($\beta = 0.148$ and p = 0.048). These findings suggest that transparency is a significant predictor of compliance with procurement law and regulations. As shown in Table 4, a one-unit increase in transparency increases regulatory compliance by 14.8%. A clear and plausible explanation for this positive relationship is that transparency enables procurement practitioners to maintain high standards of openness in their procurement activities. Transparency also encourages procurement procedures to be clearly defined and easily verifiable in order to improve the acquisition of goods and services, and during bidding, openness to the procedures and disclosure of results among participants encourages compliance with procurement laws and regulations in public procurement. These findings are consistent with those of Muriru and Moronge (2018) who establish that in ensuring that procurement activities are carried out successfully and efficiently, procurement transparency is essential. A study of Bauhr et al. (2020) emphasised the significance of transparency as a remedy for corrupt practices within public procurement.

Furthermore, the results in Table 4 support the second hypothesis of the study, H2. The relationship between accountability and regulatory compliance was found to be positive and significant at p < 0.001 and $\beta = 0.366$. These results imply that accountability is the main determinant of compliance with

procurement laws and regulations with an increase in accountability resulting into an increase in regulatory compliance by 36.6%. The plausible explanation for the existence of this relationship is that accountability in procurement entails procurement practitioners' commitment to a high standard of professional conduct, which is critical for improving procurement outcomes in organisations. Also, public review and scrutiny of procurement efforts within the organisation improves proper actions to be taken for negligence, facilitating regulatory compliance. These practices aided public organisations in improving regulatory compliance, particularly when practitioners exercised greater accountability. Similarly, Jibrin et al. (2014) recognized the need for accountability as an important factor for enhancing compliance in procurement activities. Also, Kohler and Dimancesco (2020) opined that accountability can reduce corrupt activities and other improper behaviour, ensure strict adherence to guidelines and protocols, and improve organisational performance and knowledge.

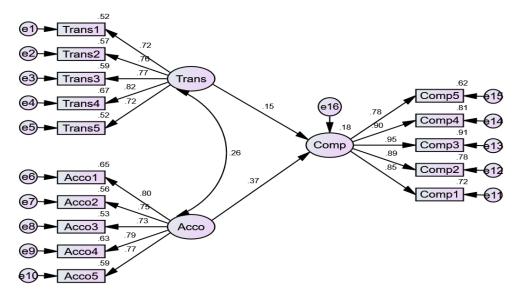


Figure 3: The structural model **Source:** Figure by authors

Generally, the results revealed that transparency and accountability as ethical practices are significant and positive determinants of regulatory compliance in Tanzanian public procurement. The results add to the already existing body of literature on the contribution of ethical conduct in procurement outcomes including performance (Israel et al., 2019; Muriru & Moronge, 2018) and compliance (Sarawa & Mas'ud, 2020). Similarly, Tukamuhabwa (2012) emphasised on transparency and accountability in explaining non-compliance in public procurement which is in line with the current study. Also, the findings are in support of the general assumptions of the theory of regulatory compliance which focus on the role of individuals within organisations in enhancing regulatory compliance in the process of carrying out the functions of an organisation.

Table 4: Structural path analysis results

Relationships	Standardised estimate	Unstandardised estimate	S.E.	C.R.	р
Transparency> Compliance	0.148	0.168	0.085	1.981	0.048
Accountability> Compliance	0.366	0.461	0.098	4.707	****

Source: Table by authors

5. Conclusion and implications

5.1 Conclusion

The study aimed to investigate how transparency and accountability impact regulatory compliance in public procurement. The study unveiled that both transparency and accountability have a positive influence on compliance with procurement regulations. However, accountability was found to be the primary contributing factor. Therefore, it is crucial to emphasise a commitment to maintaining high standards of professional conduct, establish a clear chain of responsibility for addressing procurement challenges, implement effective control mechanisms for addressing supplier complaints, conduct public reviews and scrutiny of procurement actions to enhance cost reduction and the quality of procured goods and services. These factors promote accountability and, consequently, regulatory compliance. On the other hand, the study confirmed that transparency in procurement practices, such as adhering to high ethical standards, implementing anti-corruption measures, and clearly defining procurement procedures, enhances compliance with procurement laws and regulations. Thus, transparency in the procurement process encourages adherence to elevated standards of conduct and strengthens compliance in public procurement. The study's conclusions provide both theoretical and managerial insights.

5.2 Theoretical implications

From a theoretical perspective, the study contributes to the existing knowledge in the field by examining relationships between transparency, accountability, and regulatory compliance in public procurement. By investigating the specific role of transparency and accountability, the study sheds light on how these factors influence the level of regulatory compliance observed in public procurement practices. The study expands upon the theoretical understanding of the importance of transparency and accountability in enhancing regulatory compliance. It provides valuable insights into the mechanisms through which transparency and accountability can positively impact compliance with procurement laws and regulations. By delving into this relationship, the study contributes to the theoretical framework surrounding effective governance and control mechanisms in public procurement. Moreover, the study offers a deeper understanding of the theoretical underpinnings behind the link between transparency, accountability, and regulatory compliance. Therefore, by conducting this research, the study makes a significant contribution to the existing body of research on public procurement principles, ethical conduct and regulatory compliance, building upon the work of Changalima et al. (2022), Hassan et al. (2021), Sarawa and Mas'ud (2020), and Israel et al. (2019). By providing empirical evidence from Tanzania, the study expands the understanding of the role of transparency and accountability in improving regulatory compliance in public procurement context.

5.3 Managerial implications

From a managerial standpoint, the study draws conclusions that highlight the importance and relevance of its findings for public procurement practitioners in Tanzania. The study emphasises the significance of transparency and accountability in enhancing the effectiveness and efficiency of procurement operations and ensuring regulatory compliance. It offers valuable insights that procurement practitioners can utilize to establish clear standards of practice regarding transparency and accountability in procurement operations, with the goal of enhancing regulatory compliance. Consequently, it is recommended that procurement practitioners involved in Tanzanian public procurement prioritise transparency and accountability in their daily procurement activities to enhance regulatory compliance. The study's findings indicate that transparency plays a vital role in attaining regulatory compliance in procurement activities.

To enhance transparency, organisations can adopt open tendering procedures and other competitive procurement methods that are accessible to the local and international suppliers (bidders). This can be achieved by clearly indicating competitive procurement methods in prepared procurement plans during the planning phase. Moreover, it is crucial to ensure that procurement notices are effectively advertised to eligible suppliers and tenderers, employing well-defined procurement requirements and utilizing a wide range of advertising sources, including electronic platforms as mandated by the PPA and its regulations. In this scenario, procurement practitioners operating in the public sector must prioritise accountability in procurement activities. Given that the procurement process, particularly in the public sector, involves various key stakeholders such as user departments, procurement personnel, tender board members, accounting officers, and ad-hoc team members (e.g., negotiation, receiving, and inspection), all individuals should be held accountable for their actions. One approach to achieving this is by ensuring that only responsible personnel are involved in the procurement process, implementing robust internal control systems such as approvals and authorisations.

6. Limitations and future research directions

This study has certain limitations that provide opportunities for future research. Firstly, the study primarily adopts a quantitative approach to establish relationships between transparency and accountability as independent variables and regulatory compliance as a dependent variable. Consequently, future research could employ a qualitative research methodology to obtain a comprehensive understanding of the impact of transparency and accountability. Secondly, while the study focuses on transparency and accountability, future studies could explore additional ethical practices such as conflicts of interest and integrity and extend further by analysing the effects of demographics to better comprehend regulatory compliance in public procurement. Furthermore, to contribute further to the ongoing literature debate on ethical practices and compliance in public procurement, the current study could expand by introducing an additional variable in the relationship between transparency, accountability, and regulatory compliance. This expansion would allow for the examination of moderating or mediating effects. The relationship between transparency, accountability, and regulatory compliance may be influenced by various moderating variables, such as organisational culture and stakeholder pressure. Additionally, trust and perceived benefits could serve as mediating variables within this relationship.

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