Public sector accountability: do leadership practices, integrity and internal control systems matter?

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Abstract
Purpose – The study explores the current public sector accountability practices in sub-Saharan African region. Specifically, this study assesses whether accountability is related to integrity, internal control system and leadership in the public sector of a developing country.
Design/methodology/approach – Structural equation model (SEM) is used to predict the drivers of public accountability in a developing country. A survey design with quantitative analysis is used to analyze responses from directors or heads of agencies or departments in the ministries of a developing country.
Findings – The result shows that integrity, internal control and leadership practices positively and significantly impact public accountability. These findings suggest that public accountability in the developing economic context is a function of these aforementioned factors to ensure efficient public sector accountability and governance. The findings could assist policymakers in Sub-Saharan African country to enhance accountability among different departments and agencies of government.
Originality/value – This study makes an important contribution by providing evidence of drivers of public accountability from the perspective of public sector entities in Sub-Saharan African country, to complement the extant literature that has focused largely on developed economies
Keywords Accountability, Integrity, Internal control system, Leadership, Public sector, Structural equation modeling (SEM)
Paper type Research paper

1. Introduction
The growing interest in accountability among institutions in enhancing risk management has led to renewed interest among researchers and regulators on the link between leadership practices, integrity, internal control systems and public sector accountability
Accountability is a social relationship where an actor feels obliged to clarify and defend their conduct to some important other (Malbon, Carey, & Dickinson, 2018; Sofyani, Pratolo, & Saleh, 2021). Accountability guarantees judicious use of the government’s scarce resources and provides oversight on duties and decisions of government-appointed officials, thereby contributing to better governance and poverty reduction (Arun, Adhikari, & Mohan, 2020; Manes-Rossi, 2019).

Prior literature on the drivers of public accountability focused on management productivity (Hui, Othman, Omar, Rahman, & Haron, 2011), legislative issues (Barton, 2006), budgeting (Goddard, 2004) and developments (Christensen & Skaerbaek, 2007). The few studies that have also examined the influences of accountability on the integrity system, internal control systems and leadership qualities focus on developing countries in Asia (see Alam, Said, & Abd Aziz, 2019; Aziz, Ab Rahman, Alam, & Said, 2015; McGee & Gaventa, 2011b), implying an important research context, African regions, has been neglected.

Unlike prior studies, this study assesses whether accountability is related to integrity, internal control system and leadership in the public sector of a developing country, Ghana. The Ghanaian public sector setting provides a rich context to model accountability in sub-Saharan Africa. Here, Ghana is one of the fastest-growing, most peaceful and democratic economies in sub-Saharan Africa (Hess, 2021). In the past two decades, Ghana’s institutional quality, social-economic development and peaceful government systems have been a considerable decline in the state’s capacity to offer the necessary transformation support leading to poor public sector accountability (Ohemeng & Ayee, 2016). Weak policy coordination and implementation affect institutional reforms that promote accountability and economic development. Here too, to ensure economic growth and transformation, Ghana must tackle the institutional deficiencies that undermines the delivery of vital public services, ensure efficiency and accountability in delivering critical public services and strengthen monitoring and evaluation. In this spirit, World Bank recommended and launched good governance and accountability codes to ensure fiscal efficiency, effectiveness and transparency two decades ago (World Bank, 2000). Subsequently, accountability seems to deter corruption and abuse of control and power (Arun et al., 2020; Manes-Rossi, 2019; Fries, Kammerlander, & Leitterstorf, 2021). However, government assurance is required for accountability components by energizing moral practices and systems that avert corruption and abuse controls (Hinson et al., 2022; Mcgee & Gaventa, 2011). These notwithstanding, research on whether accountability is related to integrity, internal control system, and leadership in the public sector of a developing country within the sub-Saharan African region is non-existent. This study fills the void by analyzing data collected on these aforementioned corporate governance principles from the Ghanaian public sector. We argue that our findings would assist policymakers in developing economies and beyond in ensuring effective accountability in the public sector.

The rest of the paper is structured as follows. Section 2 reviews the relevant literature emphasizing on the theory and hypothesis development. Section 3 discusses the method. Section 4 presents and discusses the results. Section 5 offers the implications for theory and practice. Section 6 provides the limitations and suggestions for further research and Section 5 concludes.

2. Theory and hypothesis
The study uses the stakeholders’ theory to ascertain whether integrity systems, internal controls and leadership qualities affect accountability (Yulianto, Sholihah, Baswara, & Yustitia, 2020). Stakeholder theory (SHT) postulates that supervisors ought to make
decisions and choices by considering all stakeholders’ interests (Jensen, 2001; Mat, Saad, Arshad, Roni, & Urus, 2022). Mat et al. (2022) further argued that SHT strengthens the relationships of an institution and its society in deepening accountability. The following subsections present the literature on the nexus between integrity systems, internal controls, leadership qualities hypothesis and accountability.

2.1 Integrity systems and accountability

Initially, the Roman rationalists characterized integrity as ethical uprightness or wholeness of organizational behavior, human asset administration and leadership (Alam et al., 2019). Integrity is additionally considered a matter of coherence among organizational objectives, individual ethics and convictions and personal behavior (Hoekstra, Huberts, & van Montfort, 2022). Subsequently, integrity systems expect to impact corporate activity and choices or ethical choices (Trevino-Rodriguez, 2007), and the management of institutions has an essential role in modeling appropriate integrity systems in the institution (Kaptein, 2003; Valkenburg, Dix, Tijdink, & de Rijcke, 2021). According to extant studies, the most common implications of integrity incorporate wholeness, consistency, personality, trustworthiness and ethical commitment (Becker, 1998; Carter, 1996; Scherkoske, 2013; Valkenburg et al., 2021). Hoekstra et al. (2022) argued that every government must ensure open systems through sound governance and integrity frameworks. Providing open integrity systems positively affects public accountability (Mintrop, 2012). Jones (2009) further argued that quality integrity systems drive accountability and balance linkage between institutional and societal cultures and needs. Alam et al. (2019), Aziz et al. (2015), Carter (1996), Scherkoske (2013) and Yahya, Said, Zakaria and Musa (2022) concluded integrity positively affects accountability because it connects the belief among boardroom managers and stakeholders and invigorates staff to comply with ethical standards, values and commitment to work. Corporate integrity frameworks or systems guarantee accountability and transparency within the organization (Yahya et al., 2022), and the study hypothesized that:

H1. The integrity system positively affects public accountability practices in the Ghanaian public sector.

2.2 Internal control systems and accountability

A sound internal control system benefits institutions in anticipating the incidence of worse financing and helping an institution work viably and concordantly when identifying errors and inconsistencies in its operation (Appiah, Agyemang, Agyei, Nketiah, & Mensah, 2014; Anh, Thi, Quang, & Thi, 2020). Thus, sound corporate governance systems in every institution start with effective and efficient internal control systems that prevent fraud, corruption and abuse of resources (see Kabuye, Kato, Akugizibwe, & Bugambiro, 2019). Put differently, accountability is more likely to be compromised in public institutions without internal control systems. In sum, literature seems to converge on the notion that ineffective accountability negatively affects risk management, sustainability as well as both financial performance and reporting quality (Chalmers, Hay, & Khlf, 2019), suggesting management in the public sector finds it difficult to validate the complex procedures and strict compliance to internal control principles to minimize the detrimental impacts of risk. Evidence, however, is not persuasive on this point. Alam et al. (2019) and Dewi, Ramadhanti and Wiratno (2016), for example, find that internal control systems do not affect the accountability and performance of public institutions. Most studies, however, report a positive relationship between internal control systems and accountability (Yesinia, Yuliarti, & Puspitasari, 2018; Hardiningsih, Udin, Masdjojo, & Srimindarti, 2020; Widyatama, Novita, & Diorespati, 2017). The study, thus, hypothesized that:
Internal control system has a positive effect on accountability practices in the public sector of Ghana.

2.3 Leadership practices and accountability

The leadership practices help achieve quality and positive outcomes (Fries et al., 2021). Effective leadership can drive collaboration, quality and safety advancements and development (Hinson et al., 2022). Marques (2010) concurs by pointing out a few leader characteristics including ethical values, highly moral, honoring astuteness, genuineness and trust, vision, outright respect, passion, commitment, sympathy, equity, kindness, forgiveness, courage, love, profound listening, motivation, authenticity, multi-dimensionality and flexibility. With this current advancement, the organization requires a leader with leadership charisma (Simpson, 2007). Therefore, when the leaders' behavior is too distinctive from the followers' desires, undesirable results can weaken individual and workgroup execution (Fries et al., 2021; Subramaniam, Othman, & Sambasivan, 2010). From this point, Gonzalez and Firestone (2013) argue that leaders played a crucial part by interpreting state and government policies that impact accountability. This highlights the complex connections among leader reputation, trust and accountability, encouraging leaders' execution and viability. Leaders' reputations affect the degree of formal accountability components for their work-related choices and activities (Hinson et al., 2022). To realize greater accountability, public sector institutions should develop suitable leadership characteristics. Thus, previous studies (see Alam et al., 2019; Gonzalez & Firestone, 2013; Sendjaya & Pekerti, 2010) report a positive relationship between leadership and accountability; and thus, our third hypothesis is:

H3. Leadership has a positive relationship with accountability practices in the public sector of Ghana.

3. Methods

The study, conducted in Kumasi, Ghana, focused on 26 ministries with 107 departments or agencies in the public sector. The study uses cross-sectional data from a primary survey of 84 public sector departments or agencies in the public sector in an African region, Ghana, and applies structural equation model (SEM) to examine whether accountability is related to integrity systems, internal control systems and leadership practices. Using the Yamane (1973) sample formula and a margin of error of 5%, an ideal sample of 84 respondents is selected using stratified and simple random sampling techniques (see Table 1).

The survey instrument contains close-ended question items that measured the views of respondents on accountability, our dependent variable, as well as corporate integrity system, internal control system and leadership practices, our independent variables. The study adopts 10, 13, 12 and 10 accountability, leadership, integrity and internal control system proxies, respectively, from Alam et al. (2019), Aziz et al. (2015) and Shaoul, Stafford and Stapleton (2012). We measure the views of respondents on seven (7)-point Likert scale from strongly disagree (1) to strongly agree (7). We pretest the questionnaire using 10 heads of departments or agencies with not less than five years experience in the public sector in Ashanti Region during May, 2019. The goal was to check the correctness and understandability of the questions in the questionnaire in a developing economy context. The first author administered questionnaires to the sampled 84 heads of the agencies or departments from July, 2019 to August, 2019. All protocols regarding the ethical and confidentiality of the information provided were duly observed.
The Cronbach's alpha value for the constructs ranges from 0.796 to 0.867. These values are more than 0.7, the acceptable threshold. The KMO measure of sample adequacy results also ranges from 0.768 to 0.852, indicating the appropriateness of the research constructs. The outer weight assessment, however, displays insignificant p-values of 8, 11, 10 and 6 measures of accountability, leadership, integrity and internal controls, suggesting these proxies do not add any empirical support to the content of the formation index and thus, deleted (see Cenfetelli & Bassellier, 2009). Table 2 shows the reduced validated measures for each variable.

4. Results and discussion
4.1 Descriptive analysis
Table 3 provides the descriptive statistics of the variables for the study. The mean score for accountability, leadership qualities, integrity, and internal control systems is 5.67, 5.60, 5.55 and 5.50, respectively. The survey scores suggest the majority of respondents (95.2–96.4%)
agreed with the statements outlining the accountability, integrity, internal control and leadership practices in the public sector of Ghana.

### 4.2 Diagnostic results

There are two levels to confirm the assessment of formative measurement models: the indicator and the construct. The indicator level considers outer weight after bootstrapping (Efron & Tibshirani, 1993). A significance level of 5% implies that an indicator is appropriate for constructing the formative index and exhibits a sufficient level of validity (Appiah, Gyimah, & Adom, 2020; Adeola, Gyimah, Appiah, & Lussier, 2021; Gyimah and Adeola, 2021; Sakyiwaa, Gyimah, & Nkukpornu, 2020). Table 4 provides significant diagnostic results for the outer weights test, indicating no multicollinearity problem. Again, the study computes the variance inflation factor and record values of less than 10, suggesting that multicollinearity is not an issue (Gyimah, Appiah, & Lussier, 2020; Jalloh, Appiah, & Gyimah, 2019). Indicators of
formative measurement can have positive, negative or even no correlation (Haenlein & Kaplan, 2004); as a result, there is no need to report the discriminant validity and internal consistency reliability.

4.3 Hypothesis results
Table 5 presents the results of hypothesis testing on the effects of the integrity system, internal control system and leadership qualities on accountability practices of the public sector in Ghana. The study’s interpretation generated by the Smart PLS 3 is accurate and justified since the requirements of diagnostics of the outer weight and the variance inflation factor were met. The $R^2$-square measures the model's predictive accuracy, emphasizing the amount of variance in the endogenous construct explained by all of the exogenous constructs. Overall, the proposed model posits that about 56.8% of variations in accountability practices are due to integrity, internal control and leadership qualities. The standardized root mean residuals (SRMR) of 0.051 is less than 0.08, implying the data fit the model quite well. Also, the normed fit index (NFI) value of 0.901, which is close to 1, indicates that the model represents an acceptable fit above 0.9 (Bentler & Bonett, 1980).

In the first place, the corporate integrity system has a significantly positive effect on accountability practices ($\beta = 0.330$, $t = 2.954$, $p < 0.05$), which supports hypothesis 1 that the corporate integrity system positively affects accountability practices in Ghana’s public sector. The path coefficients depict that a 100 points change in integrity systems leads to about 33.0 points change in Ghana’s public accountability and has a statistical significance of 5%. Furthermore, the internal control system significantly positively affects accountability

<table>
<thead>
<tr>
<th>Research construct</th>
<th>Original sample (O)</th>
<th>Sample mean (M)</th>
<th>Standard deviation (STDEV)</th>
<th>T-statistics</th>
<th>p-values</th>
<th>Variance inflation factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 1</td>
<td>0.560</td>
<td>0.552</td>
<td>0.124</td>
<td>4.533</td>
<td>0.000</td>
<td>1.199</td>
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<tr>
<td>ACC 10</td>
<td>0.631</td>
<td>0.647</td>
<td>0.115</td>
<td>5.502</td>
<td>0.000</td>
<td>1.199</td>
</tr>
<tr>
<td>CIS 1</td>
<td>0.749</td>
<td>0.744</td>
<td>0.127</td>
<td>5.890</td>
<td>0.000</td>
<td>1.220</td>
</tr>
<tr>
<td>CIS 10</td>
<td>0.417</td>
<td>0.411</td>
<td>0.164</td>
<td>2.538</td>
<td>0.011</td>
<td>1.220</td>
</tr>
<tr>
<td>ICS 1</td>
<td>0.428</td>
<td>0.421</td>
<td>0.111</td>
<td>3.842</td>
<td>0.000</td>
<td>1.999</td>
</tr>
<tr>
<td>ICS 3</td>
<td>0.310</td>
<td>0.298</td>
<td>0.146</td>
<td>2.119</td>
<td>0.000</td>
<td>1.605</td>
</tr>
<tr>
<td>ICS 7</td>
<td>0.311</td>
<td>0.303</td>
<td>0.138</td>
<td>2.260</td>
<td>0.024</td>
<td>1.360</td>
</tr>
<tr>
<td>ICS 9</td>
<td>0.338</td>
<td>0.341</td>
<td>0.159</td>
<td>2.128</td>
<td>0.034</td>
<td>1.405</td>
</tr>
<tr>
<td>LQ 1</td>
<td>0.675</td>
<td>0.678</td>
<td>0.146</td>
<td>4.608</td>
<td>0.000</td>
<td>1.237</td>
</tr>
<tr>
<td>LQ 13</td>
<td>0.500</td>
<td>0.484</td>
<td>0.172</td>
<td>2.897</td>
<td>0.004</td>
<td>1.237</td>
</tr>
</tbody>
</table>

Note(s): ACC = Accountability, CIS = Integrity System, ICS = Internal Control System, LQ = Leadership Qualities

$R^2$-squared = 56.8% SRMR = 0.051, NFI = 0.901
practices in Ghana’s public sector ($\beta = 0.330$, $t = 3.457$, $p < 0.05$), providing support for hypothesis 2, which states that the internal control system positively affects accountability practices in the public sector of Ghana. The path coefficients show that 100 points change in internal control systems varies Ghana’s public sector accountability by about 33.0 points and is statistically significant at a 5% level. Finally, leadership qualities also significantly affect public accountability practices ($\beta = 0.233$, $t = 2.182$, $p < 0.05$), providing support for hypothesis 3, which states that leadership qualities positively affect accountability practices in the public sector. The path coefficients show that 100 points change in leadership qualities would bring about 23.3 points changes in Ghana’s public sector accountability.

4.4 Discussion of results
Concerning the findings of the effect of the integrity system on accountability practices, the study supports that the department must consider integrity assessment in evaluating individual performance and promote transparency in all activities. These activities affect the accountability practices in Ghana’s public sector. The study’s finding supports Mintrop (2012), highlighting that government policies to promote integrity, ethics and good value increase accountability. Again, our findings verify the findings of Alam et al. (2019), Aziz et al. (2015), Carter (1996), Jones (2009), Scherkoske (2013) and Yahya et al. (2022), suggesting that an integrity system has a positive impact on accountability practices in the public sector.

For the internal control systems, the result supports Aramide and Bashir (2015), emphasizing that the accountability practices can only be effective through proper internal control activity. Our findings agree with Yesinia et al. (2018), Hardiningsih et al. (2020), and Widyatama et al. (2017) that report a positive relationship between the internal control systems and public accountability. The results suggest that the internal control measures in the public sector in Ghana are effective. It, however, contrasts with Alam et al. (2019) and Dewi et al. (2016) suggesting that an internal control system has no effect on accountability practices in the public sector.

Regarding the empirical result of the leadership practices, the study’s findings support Hall, Blass, Ferris, and Massengale (2004), suggesting that leaders’ reputations affect the accountability of their work-related decisions and actions. Again, this result aligns with Alam et al. (2019), who found that leadership qualities positively affect public accountability. The study also supports Sendjaya and Pekerti (2010), who report that leaders with robust and sound ethical behavior enhance accountability in the work environment.

5. Implications
The study adds to the extant literature and reveals that public institutions that tighten their corporate integrity systems and internal control systems with quality leadership practices deepen accountability in public sector departments or agencies in a developing country context. In deepening public sector accountability, we recommend that departments or agencies in public institutions should enforce, monitor and evaluate policies relating to corporate integrity, internal control systems and quality leadership practices. Also, the departments or agencies in the public sector should have a regular review, training and continuous professional development on their systems in place to enhance integrity, robust internal controls and quality leadership practices. In addition, management must promote transparency in connection with all of its activities to increase accountability practices. Similarly, management must consider integrity conduct as a requirement for departmental and individual performance, review policies and procedures to ensure that appropriate internal controls have been established, and engage with the internal auditors to review the operations of their departments.
Additionally, top management or the leaders in the public institutions should follow the decisions agreed upon and lead by examples following robust and sound ethical behavior. Finally, leadership in public institutions should provide motivation and direction to employees, and this can enhance accountability practices.

6. Limitation and further research
First, we use a small sample from heads of agencies or departments of ministries in a developing country, excluding other emerging and advanced economies. Thus, future studies should replicate representatives from other countries to help generalize the findings. Future studies can also explore qualitatively using a small sample to provide data triangulation.

Second, subjective measuring instruments are used for both the dependent and independent variables instead of objective data to ascertain the drivers that affect accountability in the public sector. Future studies may consider objective financial, or secondary ministries data to examine the determinants of public accountability.

Third, public perceptions of accountability were not explored, which is essential for adopting practices framed by the policymakers. Further studies should explore the effect of integrity practices, internal controls and leadership practices on public perceptions of accountability.

Fourth, the study excludes regulatory requirements, cultural dimensions, micro- and macro-economic indicators, internal and external factors of the public sectors, and other corporate leadership characteristics that can affect the accountability of public institutions in developing countries. Future studies should use appropriate theories and frameworks to include these indicators as control, mediating and moderating variables to examine their effect on public accountability. Lastly, there should be a further exploration whether accountability is related to integrity, internal control system and leadership in the public sector from the perspective of employees.

7. Conclusion
We contribute to the debate of accountability practices from the perspective of public sector entities in a developing country, an important but neglected research context. We assess the variables that predict accountability in the public sector of a developing country. A survey design with quantitative analysis is used to analyze the responses of 84 directors or heads of agencies or departments in ministries in Ghana. Based on the structural equation model (SEM), our contribution is that integrity, internal controls and leadership practices predict accountability practices in the public sector of developing economies.

References


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