https://doi.org/10.56279/orseaj.v14i2.3


# Corporate Governance, Management Control System and Financial Performance of State-Owned Enterprises in Tanzania

**Marungwa R. Matutu[1] and Henry Chalu[2]**

**Abstract**

*The aim of this paper was to investigate the mediating role of the Management Control System in the relationship between Corporate Governance and the Financial Performance of State-Owned Enterprises in Tanzania. Data were gathered from board members through questionnaires, resulting in a sample of 50 State-Owned Enterprises with 300 respondents. Agency and Contingency theories were employed to explain the effects of the interdependence between Corporate Governance and Management Control System on firm performance. The data were analysed using PLS-SEM, revealing that corporate governance significantly enhances management control systems, which subsequently positively affects the financial performance of state-owned enterprises. However, Corporate Governance and Financial Performance were found to be negatively related. Additionally, Management Control System serves as a mediator in the linkage between Corporate Governance and Financial Performance in Tanzanian State-Owned Enterprises.*

*The findings had practical relevance for boards of directors, Chief Executive Officers, and the Treasury Registrar, assisting them in utilizing Corporate Governance and Management Control System to develop strategies for improving State-Owned Enterprises financial performance. Prior research on the linkage between corporate governance and financial performance did not include Management Control System as a mediating variable, making. The current study fills this gap and adds to the body of literature. However, the findings apply only to commercial State-Owned Enterprises s and do not extend to non-commercial State-Owned Enterprises.*

.

**Keywords:** Corporate Governance, Management Control System, financial performance, State Owned Enterprises

## Introduction

Financial Performance (FP) in State-Owned Enterprises (SOEs) is critical to the economic systems of any country. The importance of FP stems from the significant role that SOEs play and the benefits they contribute when performing effectively (Chiuriri & Arshad, 2023; Kaunda & Pelser, 2022). Since SOEs serve as the primary means by which many governments deliver public goods and services, they are established worldwide to assist in achieving socioeconomic objectives (Adebayo & Ackers, 2023). However, for SOEs to achieve these objectives without imposing a financial burden on taxpayers, it is crucial that they are properly structured, managed,

[1] University of Dar es Salaam Business School, Tanzania
Email: marugwamatutu@yahoo.com
[2] University of Dar es Salaam Business School, Tanzania.

and consistently governed through robust governance practices (McDonald, 2020). As noted by. Despite the significance of SOEs, several studies advocate for their privatization due to their historically poor financial performance (Bayliss & Fine, 2008).

Globally, existing studies highlight the inadequate financial execution of public enterprises across various countries. For instance, in Zimbabwe, SOEs have experienced net losses and encountered multiple corporate governance (CG) challenges, such as nepotism, corruption, and embezzlement (Chiuriri & Arshad, 2023). In Ghana, SOEs are plagued by corruption, inefficient government administration, deceptive practices, poor business conduct, and a lack of transparency, all of which contribute to suboptimal organizational performance (Agyemang & Castellini, 2015). Similarly, the Gambia Integrated State-Owned Enterprises Framework (iSOEF) report revealed that Gambian SOEs face issues including CG challenges, conflicting commercial and socioeconomic objectives, insolvency, and inadequate accounting systems. In Tanzania, structural reforms began in the 1980s to alleviate the economic burden of unproductive SOEs and improve their efficiency. The formation of the Presidential Parastatal Sector Reform Commission (PSRC) in 1992 oversaw the process of divestiture, privatization, and liquidation of underperforming SOEs, reducing their number from 455 to 247 (OTR, 2022). In addition to other factors identified by prior studies (Chiuriri & Arshad, 2023; Kaunda & Pelser, 2022; Polck, 2018), poor CG has been identified as a primary cause of SOEs' financial struggles (Mutize & Tefera, 2020). Several initiatives were implemented, including the formation of a Steering Committee for CG guidelines and the development of CG principles by the Capital Markets and Securities Authority (Mhando, 2019). Nonetheless, Tanzanian SOEs continue to underperform (CAG, 2020;2021).

Previous studies have shown favorable linkage amidst CG and the FP of SOEs (da Cunha, Freitas & Araújo, 2020). However, most of these studies were conducted in industrialised nations and possibly not relevant to low-income nations because differences in CG structures and cultural contexts (Rughoobur, 2018; da Cunha et al., 2020 2020). CG is a multidimensional construct (Adebayo & Ackers, 2023), yet many studies treat it as a unidimensional construct when examining its relationship with FP (Kao, Hodgkinson, & Jaafar, 2019; Kiranmai & Mishra, 2019). Kobuthi, Obonyo, and Ogutu (2018) argue that conceptualizing CG as unidimensional leads to inconsistencies in its measurement and implications for FP. To be effective, CG must include both internal and external mechanisms that guide organizational operations to enhance efficiency (OECD, 2018; Bueno et al., 2018). External CG mechanisms include regulatory frameworks, while internal mechanisms comprise details regarding the board of directors plus corporate transparency (Aguilera, Desender, Bednar & Lee, 2015).

In this study, CG is measured using three dimensions: the characteristics of the board of directors (BC), corporate transparency (CT), and the regulatory framework (LF), incorporating both OECD (2018) guidelines and principles for effective CG. While Agency theory and Contingency theory have been employed to elucidate the relationship between unidimensional CG, MCS, and FP (Khongmalai *et al*., 2017; Hutomo & Pudjiarti, 2018; Khan et al., 2019; Zahoor *et al*., 2022), these theories have rarely been applied to studies examining the relationship between multidimensional CG, MCS, and FP (Chhillar & Banerjee, 2016). To address these empirical and theoretical gaps, the present study explores the connection between multidimensional CG and the FP of SOEs.  Similarly, among studies by investigating the connection between CG and SOEs, only a few have attempted to explain how management control systems (MCS) may strengthen the connection between financial performance (FP) and CG (Shahwan & Fathalla, 2020; Tahir & Bernard, 2021). This notion is supported by Gapko (2021), who found that CG alone is insufficient to improve FP unless it interacts with other factors to bring about the necessary changes. Merchant and Van der Stede, (2012) also argued that CG and MCS are inextricably linked, such that changes in CG have a direct and immediate impact on MCS, which, in turn, influences employee behavior. MCS, therefore, likely serves as an intermediary in the interaction between FP and CG (Hair, Hult, Ringle, Sarstedt & Thiele, 2017). As stated by Van der Stede and Merchant (2012), MCS and CG are closely related and must work together to monitor and oversee the actions of top executives and staff.

However, despite Chenhall's (2003) caution that investigating MCS as a one-dimensional construct in connection with a single contingent variable may lead to erroneous conclusions, most previous studies have treated MCS as unidimensional when analyzing its impact on FP. The present study adopted the framework developed by Malm and Brown (2008), which allows MCS to be measured across five dimensions: cybernetic control (CBC), rewards and compensation control (RCC), administrative control (AC), and cultural control (CC). To address the existing theoretical and methodological gaps, this study employed multidimensional MCS as a mediating construct in a connection between more than one dimensional CG and SOEs' FP. The content of the current investigation is organized into four sections. First, it reviews the current body of theoretical and empirical research. Second, it outlines the research methodology. Third, it presents an analysis of the research findings. Finally, the study accomplishes by discussing its limitations, implications, and conclusions.

**Theoretical Perspective of the Study**

This study employed two theoretical perspectives: Agency Theory and Contingency Theory. Agency Theory, introduced by Jensen and Meckling (1976), assumes that managers possess detailed knowledge of a company’s operations and, without proper board oversight, may prioritize their personal interests over those of the company’s stakeholders (Jensen & Meckling, 1976). This theory is pertinent in understanding corporate governance (CG) issues as it explains the roles and behaviors of agents, such as managers and directors (Keay & Zhao, 2017). It addresses conflict of interest between principle and agent arising from board appointments and the separation of ownership and control by emphasizing the need to hold directors accountable for their actions (Jensen & Meckling, 1976). Several studies have applied Agency Theory to examine CG and financial performance (FP) in different organizations (Kaunda & Pelser, 2022; Turyakira, Nyamute & Wainaina, 2022). However, most of these studies focus on private organizations, where shareholding is clear and direct. For instance, in listed companies, shareholders are known and have a direct, long-term financial interest in the company. This contrasts with SOEs, where, even if a government is a known shareholder, it is led by political leaders who may have personal interests. As a result, financial interests and objectives of SOEs can shift, complicating and obscuring the principal-agent problem.

In this context, Contingency Theory, developed by Fiedler (1964), helps explain how external factors can hinder internal factors in enhancing SOEs' performance. According to Donaldson (2001), a firm's effectiveness depends on the alignment or fit of its features with the external conditions reflecting the firm's position. This implies that better performance in SOEs results from a degree of fit between MCS and CG. Dimensions of CG should be designed so that changes in CG immediately influence MCS, which in turn affects FP. Contingency Theory suggests that MCS depend on the organizational context, such as board characteristics, corporate transparency, and the regulatory framework. Fisher (1998) concludes that a better alignment between CG and MCS can improve organizational performance. Thus, Contingency Theory serves as the anchoring theory in this study, as it highlights the fit between CG and MCS as a key pillar for SOE performance.

**Empirical Literature Review and Study Hypotheses**
**Corporate Governance and Firm Performance**

The objective of CG mechanisms is to mitigate potential value loss by decreasing the impact of information biasness and opportunist behavior on the side of managers (Marnet, 2004). Empirical studies have demonstrated a favorable linkage between CG and FP (Turyakira et al., 2022; Gakpo, 2021). According to existing research, inconsistent findings on the relationship between CG and FP may result from less accurate measurements of the CG construct (Larcker, Richardson, & Tuna, 2007). To enhance measurement accuracy, it is essential to view CG as a multidimensional construct and adopt a comprehensive approach that includes multiple governance systems (Hair, Hult, Ringle, & Sarstedt, 2017). While many researchers (Kao, Hodgkinson, & Jaafar, 2019) have treated CG as a one-dimensional construct, it is in fact multidimensional (Adebayo & Ackers, 2023). The success of CG depends on effective governance frameworks, and good governance practices require the integration of both internal and external mechanisms (Guluma, 2021; Bueno et al., 2018). Following the OECD (2018) guidelines, this study measures CG by using three dimensions which are corporate transparency, board characteristics, and the regulatory framework(Castañeda, Traverso & Carpentier, 2020). Previous research indicates a positive correlation between corporate FP and CG (Kao, Hodgkinson, & Jaafar, 2019), though most studies focus on a single aspect of CG. Given that exogenous constructs in the specific objectives are multidimensional constructs, the hypotheses should treat CG as a multidimensional construct. Therefore, the hypothesis generated in this context could be:

*$H_1$: A positive influence exists between corporate governance and the financial performance of SOEs in Tanzania.*

**Management Control System and Financial Performance of State-Owned Enterprises**

Managers apply MCS to attain organisational objectives and ensure efficient operations (Felcio, Samagaio & Rodrigues, 2021). They motivate employees to engage in organizational initiatives (Anthony & Govindarajan, 2007). Previous studies have discovered a strong and favourable linkage between MCS and firm performance (Rehman, Mohamed & Ayoup, 2019); however, MCS is often treated as a unidimensional construct, overlooking its multidimensional nature connection between MCS and company performance. According to Dropulić (2013) and Chenhall (2003), future research on MCS should account for its multidimensional nature to avoid errors and model under-specification. Malmi and Brown's MCS framework identifies five control dimensions: CBC, PC, RCC, AC and CC. Based on this reasoning, a hypothesis was developed that considers MCS as a multidimensional construct in its relationship with firm performance.

*$H_2$: A positive influence exists between Management Control System and the financial performance of SOEs in Tanzania.*

**Corporate Governance and Management Control System in State-Owned Enterprises**
Research by Adeusi, Igbekoyi, Ologun, and Triwacananingrum (2019), among others, suggests a one-dimensional relationship between corporate governance (CG) and management control systems (MCS). This approach may result in an under-specified model (Chenhall, 2003). Studies that examine the relationship between dimensions of MCS and organizational performance without considering these dimensions collectively in the context of CG's impact on firm performance (FP) risk drawing inaccurate conclusions (Ballesteros, 2017; Koufteros, Verghese & Lucianetti, 2014). Empirical evidence indicates a significant correlation between MCS and CG (Yi *et al.,* 2012; Hasanudin *et al.,* 2019), emphasizing the significance of assessing controls as an integrated system (Malmi & Brown, 2008). Bedford (2015) asserts that MCS emerges when various elements work in conjunction to achieve organizational goals. Byard, Li, and Weintrop (2006) argue that External directors are appointed to the board. is a critical factor that enhances board independence. This subsequently enhances the capacityand willingness of directors to oversee investment and financing decisions. This rationale results in theproposition that,

*$H_3$: A positive influence exists between Corporate Governance and Management Control System of SOEs in Tanzania.*

**Management Control System's Mediating Role in the Linkage between Corporate Governance and a Company's Financial Performance**
Contingency Theory is a significant framework in management accounting research that examines how mismatches between factors influence performance (Gerdin & Greve, 2004). As Burkert *et al.* (2014) explain, the theory employs different types of fit—matching, moderation, or mediation—where the performance of an endogenous variable is affected by an exogenous variable. A multitude of studies have explored the connection between one-dimensional CG and FP, as well as the mediating role of a one-dimensional MCS (Khan et al., 2019; Zahoor, Yang, Ren, & Arslan, 2022). According to Merchant and Van der Stede (2012), CG and MCS have to work in tandem to oversee both top management and staff, with CG enhancing the supervisory role of MCS. Khan et al. (2019) and Hutomo and Pudjiarti (2018) employed unidimensional MCS as a mediator in the association between one-dimensional CG and FP. However, very few studies have examined the role of multidimensional MCS in strengthening the connection between multidimensional CG and FP (Shahwan & Fathalla, 2020; Tahir & Bernard, 2021). This leads to the following hypothesis:

*$H_4$: The Management Control System positively mediates the linkage between Corporate Governance and the financial performance of State-Owned Enterprises in Tanzania.*

**Study Methodology**
**Study Instrument**
Questionnaires were distributed to board members of commercial SOEs in Tanzania via email and through in-person administration. The questionnaires had two main sections: the first covered demographic characteristics, with ten questions, while the second focused on the dimensions of CG and MCS. These dimensions included corporate transparency (CT), board characteristics (BC), regulatory framework (RF), cultural control (MCS1), planning control (MCS2), cybernetic control (MCS3), reward control (MCS4), administrative control (MCS5), and financial

performance (FP), with a total of forty-three (43) items. The items related to CG and MCS were measured using five points on the Likert scale (5 representing 'to a very large extent' and 1 representing 'not at all'). Financial performance was also measured using a five-point Likert scale (5 representing 'very fast growth' and 1 representing 'no growth'). The use of five-point Likert scales was intended to reduce respondent frustration or irritation, ultimately improving the quality of responses and increasing the response rate (Sachdev & Verma, 2004).

**Study Variable and Measurement**

In this study, the measurements of variables were based on existing literature, a case study conducted prior to the survey, and expert reviews on corporate governance (CG) and management control systems (MCS). Both constructs are multidimensional, as each is found within multidimensional domains and consists of several interconnected characteristics or dimensions (Law, Wong, & Mobley, 1998). CG was measured across three dimensions: corporate transparency (CT) (5 items), board characteristics (BC) (5 items), and regulatory framework (RF) (5 items), adopted from Kang et al. (2007), Cheung et al. (2008), Ogbechie (2012), and the World Bank (2014), respectively. These three dimensions form the lower-order (first-order) constructs for CG. On the other hand, MCS was measured across five dimensions: cultural control (MCS1) (5 items), planning control (MCS2) (5 items), cybernetic control (MCS3) (5 items), reward control (MCS4) (5 items), and administrative control (MCS5) (5 items), adopted from Sandelin (2008). These five dimensions constitute the lower-order (first-order) construct for MCS. Financial performance (FP) was measured using three items: return on equity, return on investment, and profits, adopted from Govindarajan (1984). Following the adaptation of the instruments, the items were distributed to ten board members and three lecturers from the University of Dar es Salaam Business School for face validity confirmation.

**Sample and Data Collection**

The population for the current study is defined as all commercial State-Owned Enterprises (SOEs) in Tanzania. The sampling frame omitted regulating state-owned enterprises that are not entirely commercial, along with colleges and universities. Financial institutions were also omitted, as they are influenced by their own laws and administrative frameworks. This omission of financial institutions aligns with the study conducted by Kuzman, Talavera, and Bellos (2018). Tanzania has fifty (50) commercial SOEs (URT, 2019), which comprise the target population and the unit of analysis for this research.

To estimate the sample size, the smallest possible sample size for Partial Least Squares Structural Equation Modeling (PLS-SEM) was used, as it permits the use of a comparatively small sample while yielding results that reflect the impacts observable in bigger populations, perhaps comprising millions of elements or individuals (Goodhue, Lewis, & Thompson, 2012). The "10-times rule" method was employed to ascertain the sample size, as it is one of the most widely used methods for estimating the minimum sample size in PLS-SEM (Hair et al., 2011). According to this method, according to Goodhue et al. (2012), the sample size ought to exceed 10 times the greatest number of inner or outer model linkages directing at any latent variable in the model. In the current study, the conceptual model has two maximum links pointing at Financial Performance (FP), so the smallest possible sample size was ascertained to be greater than twenty (20) SOEs. A sample of thirty (30) commercial SOEs was randomly selected to satisfy the 10-times rule and to ensure a reasonably acceptable value for the coefficient of path in the model with the lowest absolute sizein the model. The unit of inquiry in this study comprises the board members of the selected SOEs, as they possess useful data related to the research problem (Kumar, 2018). Six (6) board members were randomly selected from each commercial SOE, resulting in a total of one hundred and eighty (180) respondents. Information for the current study was collected via a questionnaire utilized as the survey instrument. The questionnaires were distributed to board members of commercial SOEs in Tanzania via email, as well as through personally administered questionnaires.

**Data Analysis**

**Specification of Measurement and Structure Model**

In this study, a Higher Order Construct approach was utilized due to the multidimensional nature of CG (Adebayo & Ackers, 2023) and MCS (Malmi & Brown, 2008). The repeated indicator approach was employed in PLS-SEM to define, quantify, and validate the Higher Order Constructs. This approach minimizes inaccuracies in the HOC measurement model estimation (Sarstedt, Hair, Cheah, Becker, & Ringle, 2019) and aligns well with the research objective, as it tests the structural model involving higher-order constructs (Becker, Klein, Wetzels, 2012). In the repeated indicators methodology, the observable indicators of the Lower Order Construct (LF, BC, CT, MCS1, MCS2, MCS3, MCS4, and MCS5) were reused for the second-order constructs (CG and MCS). This method of modeling HOC applying PLS-SEM founded on the hierarchical component's methodology introduced by Wold (1982). This method involves the direct measurement of a second-order construct utilizing all manifest variables associated with the first-order common factors (LF, BC, CT, MCS1, MCS2, MCS3, MCS4, and MCS5). Specifically, the second-order constructs CG and MCS consist of three and five first-order constructs, respectively, with each low-order construct being measured by five manifest variables. The manifest variables of all low-order constructs were employed as measures for the Higher Order Construct. It is a widely employed technique for approximating second order construct in PLS-SEM. (Wilson & Henseler, 2007).

The Structure model is defined by the connection between the second order component (CG and MCS) and their second order component (LF, BC, CT, MCS1, MCS2, MCS3, MCS4, and MCS5). This represents a reflective-reflective measurement model, where the lower-order components reflect the higher-order components, and the interactions are directed from the HOC to the lower-order components. The standard structural model evaluation criteria were applied to assess the relationships of the HOC with other constructs in the model, excluding the LOC. Alternatively put, the LOC, the lower-order components were not considered part of the structural model, meaning only the higher-order components were assessed in the structural model. This approach is also in line with the specific goals of the present study. A two-step approach was utilised to calculate the Higher Order Construct, using the scores of the latent variables. In the first step, the scores of the construct within the Low Order Constructs were obtained. In the second step, these scores served as items for the second-order constructs (Hair, Sarstedt, Ringle, & Gudergan, 2019).

Furthermore, PLS-SEM was used as the analytical tool because it is successful with limited sample numbers and intricate model variables. (Hair, Sarstedt, & Ringle, 2019). It is predicated on causal-predictive connections maximizing the explained variance of endogenous construct grounded in well-written justifications (Hair et al., 2019). PLS-SEM is also capable of handling reflective and formative measurement models, as well as single-item constructs without identification issues, making it well-suited for the model used in this study (Hair, Hult, Ringle, Sarstedt & Thiele, 2017).

**Assessment of the Low Order Construct (LOC) Measurement Model**

The first step in Assessing the indicator loadings and their significance requires the identification of standardized loadings between 0.40 and 0.70 (Hulland, 1999). The second step, concerning the indicator's reliability, depends on the squared loadings of individual indicators, which reflect the degree of variance shared between the individual indicator variable and construct that goes along with it (Hair et al., 2019). In the third phase of evaluating composite reliability (construct), two reliability measures, Cronbach's alpha (α) and composite reliability (CR), are used. Both must surpass a value of 0.70. Since indicators vary in their reliability, unweighted Cronbach's alpha is considered more accurate than the weighted composite reliability. The fourth phase involves assessing convergent validity by finding the mean of the indicator reliabilities of a variable, which provides the average variance extracted (AVE). For convergent validity to be acceptable, the AVE value must be greater than or equal to 0.50. In the fifth phase, discriminant validity is evaluated using three criteria: the heterotrait-monotrait ratio (HTMT) proposed by Hair et al. (2019), cross loadings, and the Fornell-Larcker criterion (Fornell & Larcker, 1981). According to the HTMT approach, an item's outer loading on a given latent variable should be greater than its cross-loadings on other latent variables. The Fornell-Larcker criterion requires that the square root of the AVE for each latent variable must be larger than its correlation with other latent variables.

**Assessment of Higher Order Construct (HOC) Measurement Model**

Once the assessment of the measurement models for the lower-order constructs (LOC) was deemed satisfactory, the subsequent phase was assessing the structural model for the higher-order constructs (HOC) (CG & MCS) (Avkiran, Ringle, & Low, 2018). The reliability and validity of the HOC (CG & MCS) were calculated based on their linkage with the dimensions of the Higher Order Construct (LOC) (LG, BC, CT, MCS1, MCS2, MCS3, MCS4, and MCS5), which were specifically interpreted as indicators of the CG and MCS constructs. As results, the reflective relationships between the HOC and its LOC were interpreted as loadings, although these appeared as path coefficients in the path model. Using these indicator loadings, the relevant statistics to assess the reliability and validity of the HOC were calculated manually (Sarstedt *et al.*, 2019), using the following equations.

$$\text{AVE} = \frac{\sum_{i=1}^{M} l_i^2}{M} \quad \text{......eq(1)}$$

Where "M" is the number of low-order components and "l" is the loadings.

Furthermore,

$$p^c = \frac{\left(\sum_{i=1}^{M} l_i\right)^2}{\left(\sum_{i=1}^{M} l_i\right)^2 + \sum_{i}^{M} var(e_i)} \quad \text{......eq(2)}$$

Where $p^c$ stands for composite reliability and "$var(e_i)$" stands for variance of measurement error. On the other hand,

$$\alpha = \frac{M \cdot \bar{r}}{1+(M-1).r} \quad \text{……………………………………………………eq(3)}$$

In equation (3), "r" represents the mean of the correlation values among the lower-order constructs (LOCs). Using the formulas provided, composite reliability, Cronbach's alpha, and AVE were calculated based on equations 1-3. Since this model involves higher-order constructs (HOC), it has been noted that the discriminant validity between the HOC and the LOC is not a concern. This is because conceptual and empirical redundancies are expected, making the discriminant validity assessment between these model elements irrelevant (Hair et al., 2018; Sarstedt et al., 2019). Therefore, this research concentrated on examining the discriminant validity of the LOCs using all three measures of discriminant validity. This study assessed the structural models according to the significance of path coefficients (β), the coefficient of determination ($R^2$), predictive relevance ($Q^2$), and effect magnitude. The path coefficient represents the strength of the postulated associations (Hair et al., 2019), while the effect size reflects the magnitude of these associations (Chin, 1998). The coefficient of determination and predictive relevance indicate the predictive strength and significance of the total structural model, respectively (Ringle & Sarstedt, 2016). A full 95% bias-corrected and accelerated bootstrapping procedure, with 5000 sub-samples and 300 bootstrap cases (no sign changes), was employed to test the significance of the path coefficients (β).

## Descriptive statistics

### Sample Characteristics

Regarding their positions, approximately 89.4% of respondents were involved in the management of SOEs, while 6.2% and 4.4% held other roles. In terms of qualifications, about 93.3% of respondents had at least one degree. CEOs represented around 4.4% of the total respondents. The diverse composition of the participants not only helped mitigate biases but also contributed to generating varied perspectives regarding the execution of CG in SOEs. A detailed description of the respondents is provided in Table 1 below:

**Table 1: Description of the respondents**

| Item | | F (n =180) | % |
|---|---|---|---|
| Position | | | |
| | CEO | 08 | 4.4 |
| | Chair person | 11 | 6.2 |
| | Board members | 161 | 89.4 |
| Qualification | | | |
| | Diploma | 12 | 6.7 |
| | Bachelor | 103 | 57.2 |
| | Masters | 50 | 27.8 |
| | PhD | 15 | 8.3 |
| Type of Gender | | | |
| | Male | 95 | 52.78 |
| | Female | 85 | 47.22 |

Source; Field Data

## Inferential statistics

### Assessment of the Measurement Models of the Low Order Constructs

The reliability of the indicators and composite reliability were evaluated using PLS-SEM, and the results are presented in Table 2. All the low-order constructs in the revised measurement model exhibit good indicator reliability, as the indicator loadings exceed 0.708 (Hair et al., 2017), except for LG1, LG2, GT1, GT2, and ST5. However, since the outer loadings of these indicators fall between 0.4 and 0.707, they were not excluded, as their presence contributes to meeting the reliability and validity thresholds for the constructs. From the measurement model evaluation results in Table 2, it is evident that all low-order constructs (BC, CT, and LF) meet the satisfactory composite reliability threshold, with composite reliability values ranging from 0.834 to 0.917. These results suggest that the measurement model for the low-order constructs, as shown in Figure 2 and Table 2, demonstrates a high level of internal consistency. The AVE values for all variables in Table 2 exceed the required minimum threshold of 0.50, indicating that the measurement model for the low-order constructs is convergent (Bagozzi & Phillips, 1982). Regarding VIF, as displayed in Table 2, the LOC scores vary from 1.22 to 2.379, indicating no issues with collinearity. These VIF results suggest that there are no signs of common method bias (CMB) between the sets of independent variables, as all indicators of The LOC exhibit VIF values that are below the threshold of less than 3.3.

**Table 2: Reliability, convergent validity and VIF results for Low Order Constructs**

| Coding | Variable/Indicator | CR | AVE | VIF | Loading |
|---|---|---|---|---|---|
| | **Regulatory Framework** | **0.898** | **0.815** | | |
| LF3 | Practices | | | 1.665 | 0.890 |
| LF4 | Dismiss | | | 1.665 | 0.915 |
| | **Board Characteristics** | **0.911** | **0.719** | | |
| BC1 | Adequate | | | 2.213 | 0.856 |
| BC2 | Committee | | | 2.358 | 0.866 |
| BC3 | Proportion | | | 2.005 | 0.832 |
| BC4 | | | | 1.994 | 0.837 |
| | **Corporate Transparency** | **1.000** | **1.000** | | |
| FT1 | Details | | | 1.000 | 1.000 |
| | **Culture Control** | **0.879** | **0.645** | | |
| CUC2 | Orientation | | | 1.651 | 0.783 |
| CUC3 | | | | 2.328 | 0.856 |
| CUC4 | Procedures | | | 2.195 | 0.841 |
| CUC5 | Values | | | 1.535 | 0.726 |
| | **Cybernetic Control** | **0.874** | **0.636** | | |
| CYC1 | Budget | | | 1.370 | 0.720 |
| CYC3 | | | | 1.742 | 0.813 |
| CYC4 | Evaluation | | | 2.040 | 0.851 |
| CYC5 | Guiding | | | 1.792 | 0.800 |
| | **Planning Control** | **0.941** | **0.888** | | |
| PC4 | Advantage | | | 2.524 | 0.940 |
| PC5 | Resource | | | 2.524 | 0.945 |
| | **Reward Control** | **1.000** | **1.000** | | |
| RC5 | Reward | | | 1.000 | 1.000 |
| | **Administrative Control** | **1.000** | **1.000** | | |

| | | | | | |
|---|---|---|---|---|---|
| AC2 | Multiple | | | 1.000 | 1.000 |
| | **Financial Performance** | **0.905** | **0.762** | | |
| FP1 | Return on Investment | | | 1.916 | 0.846 |
| FP2 | Return on Equity | | | 1.829 | 0.848 |
| FP3 | Profit increasing in satisfactory rate | | | 1.222 | 0.728 |

**Source: Smart PLS- SEM**

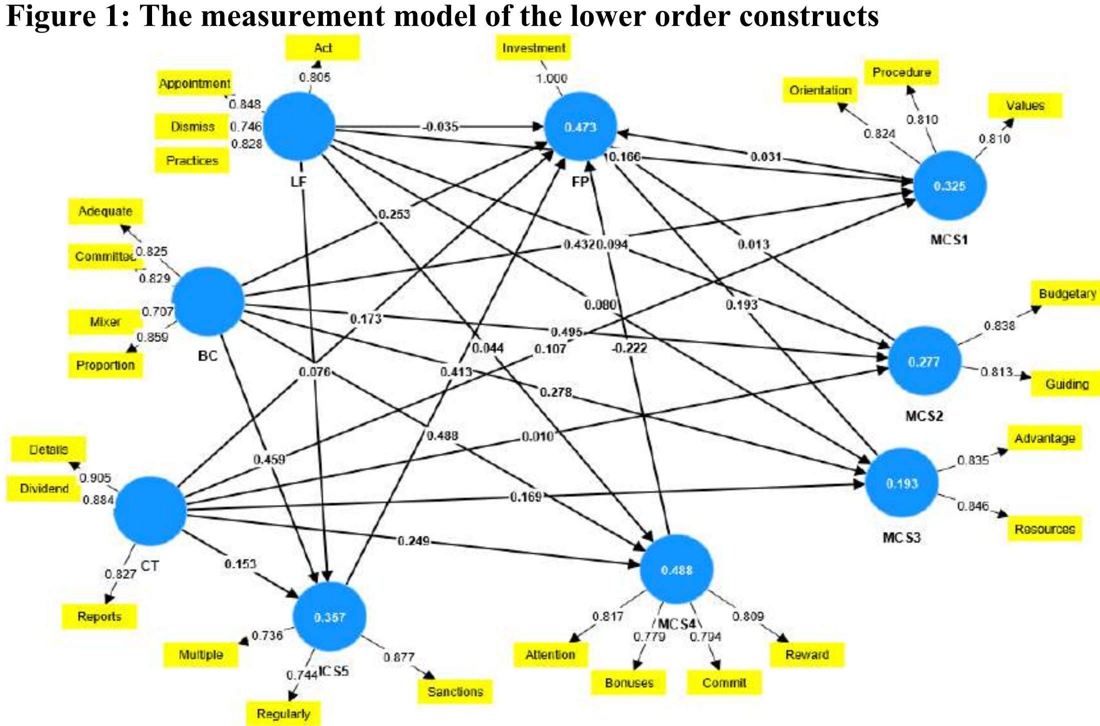
Consequently, the results in Table 3 show that the HTMT values for the three low-order constructs are nearly within the maximum threshold of < 0.9. This demonstrates that discriminant validity for the low-order constructs has been achieved.

**Table 3: Discriminant Validity: Heterotrait-Monotrait (HTMT) ratio results for Low Order Constructs**

| | BC | CT | FP | LF | MCS1 | MCS2 | MCS3 | MCS4 | MCS5 |
|---|---|---|---|---|---|---|---|---|---|
| BC | | | | | | | | | |
| CT | 0.783 | | | | | | | | |
| FP | 0.641 | 0.555 | | | | | | | |
| LF | 0.181 | 0.29 | 0.144 | | | | | | |
| MCS1 | 0.689 | 0.57 | 0.541 | 0.336 | | | | | |
| MCS2 | 0.766 | 0.549 | 0.562 | 0.331 | 0.937 | | | | |
| MCS3 | 0.634 | 0.551 | 0.603 | 0.232 | 0.89 | 0.764 | | | |
| MCS4 | 0.79 | 0.731 | 0.523 | 0.224 | 0.746 | 0.843 | 0.744 | | |
| MCS5 | 0.727 | 0.648 | 0.697 | 0.257 | 0.814 | 0.944 | 0.754 | 0.971 | |

**Source: Smart PLS- SEM**

## Figure 1: The measurement model of the lower order constructs




**Source: Smart PLS- SEM results**

***Key:*** *Dimensions of CG are: BC-Board Characteristics, LF-Regulatory framework, CT-Corporate Transparency whereby dimensions of MCS are: MCS1-Culture Control, MCS2-Cybernetic Control,MCS3-Planning Control,MCS4-Reward Control and MCS5-Adminstrative Control.*

## Evaluation of the Structural Model

Composite reliability and AVE were calculated, and the results, shown in Table 4, exceed 0.7, providing strong evidence of the internal consistency and reliability of the higher-order construct. After evaluating the variance inflation factor (VIF), it was found that all VIF values were below the five-point threshold, indicating that the structural model does not exhibit collinearity issues among the predictor constructs, as shown in Table 4 below.

**Table 4: Reliability, Convergent Validity and VIF Results for Higher Order Constructs**

| Coding | Variable/Indicator | CR | AVE | VIF | Loading |
|---|---|---|---|---|---|
| | **Corporate Governance (CG)** | **0.831** | **0.6334** | | |
| BC | Board Characteristics | | | 1.107 | 0.526 |
| CT | Corporate Transparency | | | 2.102 | 0.908 |
| LG | Regulatory Framework | | | 2.102 | 0.894 |
| | **Management Control System (MCS)** | **0.860** | **0.554** | | |
| MCS1 | Calcuture Control | | | 1.404 | 0.827 |
| MCS2 | Cybernetic control | | | 1.745 | 0.804 |
| MCS3 | Planning Control | | | 1.562 | 0.727 |
| MCS4 | Reward Control | | | 2.530 | 0.859 |
| MCS5 | Administrative Control | | | 2.513 | 0.851 |
| | **Financial Performance (FP)** | **0.847** | **0.648** | | |
| ROI | Return on Investment | | | 2.675 | 1.000 |

**Source: Smart PLS- SEM**

As a result, the structural model relationship (CG -> FP) is significant ($p < 0.05$), as shown in Table 5. Regarding the $R^2$ value, the results indicate moderate predictions for FP ($R^2 = 0.121$, Adj. $R^2 = 0.118$). The $Q^2$ value for FP was 0.070. Since all $Q^2$ values are significantly greater than zero, the model's predictive relevance for the endogenous components is supported (Hair et al., 2019; Chin, 1998). The path coefficient in the hypothesis (H) predicted a there would be a favorable linkage between CG and FP of SOEs in Tanzania, and this hypothesis was supported, as shown in Table 6 below. However, to draw more conclusions about the effect size, it is vital to further validate these results by calculating the effect size ($f^2$). As seen in Table 6, the $f^2$ value of 0.138 is considered small according to the threshold (Ringle et al., 2015).

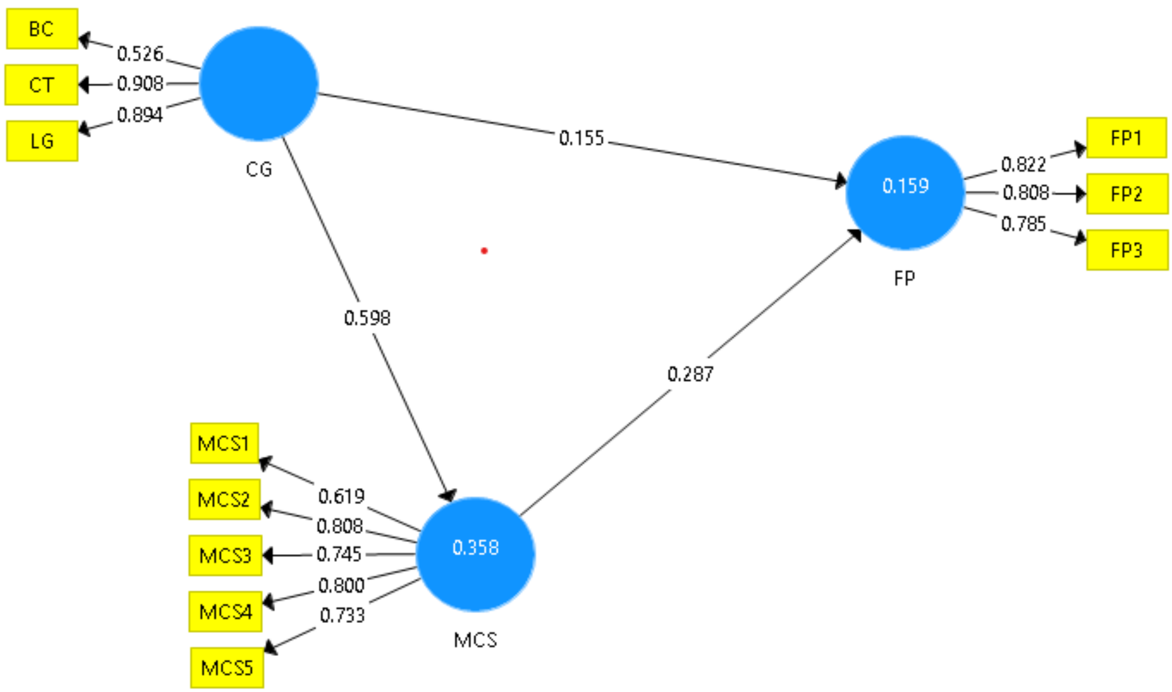
**Table 6: Structure Model Evaluation Results**

| No | Relation | Std Beta | Std Error | t-Value | 95%CI | P-Value | $f^2$ | $R^2$ | $Q^2$ |
|---|---|---|---|---|---|---|---|---|---|
| | Hypothesis with direct effect | | | | | | | | |
| $H_1$ | CG->FP | 0.155 | 0.082 | 1.898 | [-0.011:0.316] | 0.058 | 0.018 | 0.159** | 0.091 |
| $H_2$ | MCS->FP | 0.598 | 0.064 | 4.508 | [0.161:0.413] | 0.000** | 0.063** | 0.159** | 0.091 |
| $H_3$ | CG->MCS | 0.287 | 0.041 | 14.676 | [0.518:0.679] | 0.000** | 0.557** | 0.358** | 0.191 |
| | Hypothesis with | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | indirect effect | | | | | | | | |
| H4 | CG->MCS->FP | 0.171 | 0.040 | 4.315 | [0.097:0.256] | 0.000** | | 0.159** | 0.091 |

**Source: Smart PLS Results**
**Note: **p < 0.05**

**Figure 2: The structure model resulted from the higher order constructs**




**Source: Smart PLS- SEM**

**Discussion of Findings**

The primary objective of this study was to examine the mediating effect of MCS in the relationship between CG and FP of SOEs. This is consistent with Gapko (2021), who found that CG alone does not directly improve firm performance, but requires interaction with other factors to bring about the necessary changes. The findings also support Hypothesis 2 (H2), which posits that MCS is positively related to FP of SOEs. These results align with previous studies indicating that MCS positively influences FP (Müller-Stewens et al., 2020). Additionally, the results confirm a positive correlation between CG and MCS in Tanzanian SOEs, consistent with empirical studies that report a positive relationship between CG and MCS (Hasanudin et al., 2019; Adeusi, Igbekoyi, and Ologun, 2019). This is further supported by the Contingency Theory, which explains the interconnection between CG and MCS, proposing that organizational performance is contingent on the alignment between CG and MCS (Ganescu, 2012).

Hypothesis 4 ($H_4$) is also supported in this study. This hypothesis explored the role of MCS as a package in mediating the relationship between CG and SOE financial performance. The findings indicate that MCS does, in fact, mediate the relationship between CG and FP of SOEs. These results are consistent with those of Chillar et al. (2016), who examined the link between CG, MCS, and FP, finding that CG is a foundational element for administrative controls and serves as the basis for other MCS to function within organizations. However, Merchant and Van der Stede (2012) argued that CG and MCS are inextricably linked. According to Hair et al. (2021), mediation occurs when a construct, referred to as the mediator construct, intervenes between two related constructs.

**Conclusion**

This study explored the relationship between CG, MCS, and FP in Tanzanian SOEs and found that companies employing both CG and MCS achieve better financial performance, underscoring the importance of integrating these concepts. Additionally, the study investigated the function of Multidimensional MCS as a mediator between CG and FP, demonstrating its positive impact on FP and its potential to enhance organizational performance. This aligns with the Contingency Theory, which suggests that a better alignment between CG and MCS can improve organizational performance. The paper contributes to the literature on both multidimensional CG and MCS by addressing existing gaps in both areas. It also makes a theoretical contribution by applying Agency Theory and Contingency Theory to explain the effects of the interdependence between CG and MCS in driving performance. Methodologically, the study innovatively conceptualizes CG and MCS as multidimensional constructs, a departure from previous studies (Chhillar & Banerjee, 2016).

This research highlights the significance of CG and MCS in formulating strategies to enhance the performance of SOEs for the sustainable development of the country. It provides valuable insights for the Office of the Treasury Registrar, guiding the improvement of SOE performance and supporting national development through strategic capital investments and oversight of public and statutory businesses, thereby boosting the competitiveness and quality of state-owned enterprises. To contribute to the National Productive Capacity policy, this study emphasizes the importance of the CG dimensions (BC, CT, and LF) and MCS dimensions (MCS1, MCS2, MCS3, MCS4, and MCS5) in overseeing SOEs to enhance their competitiveness and quality. However, the study was limited to financial SOEs in Tanzania, so the findings are only applicable to commercial companies. Future research should consider both commercial and non-commercial SOEs for broader generalizability.

**References**

Abang'a, A. O. G., Tauringana, V., Wang'ombe, D., & Achiro, L. O. (2022). Corporate governance and financial performance of state-owned enterprises in Kenya. *Corporate Governance: The International Journal of Business in Society*, *22*(4), 798-820.

Abhayawansa, S., & Johnson, R. (2007). Corporate governance reforms in developing countries: Accountability versus performance. *Reading in Auditing*, *2*, 84-98.

Adebayo, A., & Ackers, B. (2023). Theorising hybridity in state-owned enterprises (SOEs). *Journal of Management and Governance*, *27*(4), 1249-1275.

Adeusi, A. S., Igbekoyi, O. E., & Ologun, O. V. (2019). Corporate governance mechanisms and employees' compensation. *Accounting and taxation review*, *3*(2), 66-84.

Aguilera, R. V., Desender, K., Bednar, M. K., & Lee, J. H. (2015). Connecting the dots: Bringing external corporate governance into the corporate governance puzzle. *Academy of Management Annals*, *9*(1), 483-573.

Agyemang, O. S., & Castellini, M. (2015). Corporate governance in an emergent economy: a case of Ghana. *Corporate Governance*, *15*(1), 52-84.

Anthony, R. N., & Govindarajan, V. (2007). *Management control systems* (12th edn.). Boston: McGraw-HillResearch,Harvard Business School, Boston.

Avkiran, N. K., Ringle, C., & Low, R. K. Y. (2018). Monitoring transmission of systemic risk: application of partial least squares structural equation modeling in financial stress testing. *Journal of Risk, forthcoming*.

Bagozzi, R. P., & Phillips, L. W. (1982). Representing and testing organizational theories: a holistic construal. *Administrative Science Quarterly, 27*(3), 459–489.

Bayliss, K., & Fine, B. (2008). Privatization in practice. In *Privatization and Alternative Public Sector Reform in Sub-Saharan Africa: Delivering on Electricity and Water* (pp. 31-54). London: Palgrave Macmillan UK.

Ballesteros Orozco, D. (2017). Understanding the impact of management control systems over capabilities and organizational performance, under the influence of perceived environmental uncertainty.

Byard, D., Li, Y., & Weintrop, J. (2006). Corporate governance and the quality of financial analysts' information. *Journal of Accounting and Public policy*, *25*(5), 609-625.

Becker, J. M., Klein, K., & Wetzels, M. (2012). Hierarchical latent variable models in PLS-SEM: guidelines for using reflective-formative type models. *Long range planning*, *45*(5-6), 359-394.

Bedford, D. S. (2015). Management control systems across different modes of innovation: Implications for firm performance. *Management Accounting Research*, *28*, 12-30.

Bueno, G., Marcon, R., Pruner-da-Silva, A. L., & Ribeirete, F. (2018). The role of the board in voluntary disclosure. *Corporate Governance: The international journal of business in society*, *18*(5), 809-838.

Burkert, M., Davila, A., Mehta, K., & Oyon, D. (2014). Relating alternative forms of contingency fit to the appropriate methods to test them. *Management Accounting Research*, *25*(1), 6-29.

CAG. (2022). Annual general report of the controller and auditor general: On the audit of public authorities and other bodies for the financial year 2020/21.Dodoma, Tanzania.

CAG. (2021). Annual general report of the controller and auditor general: On the audit of public authorities and other bodies for the financial year 2019/20.Dodoma, Tanzania,G.O.

Chenhall, R. H. (2003). Management control systems design within its organizational context: findings from contingency-based research and directions for the future. *Accounting, organizations and society*, *28*(2-3), 127-168.

Cheung, Y. L., Jiang, P., Limpaphayom, P., & Tong, L. U. (2008). Does corporate governance matter in China? *China Economic Review*, *19*(3), 460-479.

Chhillar, P., & Banerjee, P. (2015). Management Control Systems and Corporate Governance: A Theoretical Review. *Asia-Pacific Management Accounting Journal*, *10*(2), 103-128.

Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. *MIS quarterly*, vii-xvi.

Chiuriri, F. M., & Arshad, R. (2023). An Analysis Of Corporate Governance Practices In State-Owned Enterprises And Parastatals In Post-Independence Zimbabwe. *RES MILITARIS*, *13*(1), 3615-3624.

da Cunha, T. N., Freitas, D. D. S. B., & de Araújo, R. M. (2020). Governance Corporativa e Lucro Estatal: Uma Análise a Partir da Lei das Estatais/Corporate Governance and State Profit: An Analysis from the State Law. *Revista FSA (Centro Universitário Santo Agostinho)*, *17*(10), 52-79.

Donaldson, L. (2001). *The contingency theory of organizations*. Sage.

Douma, S., & Schreuder, H. (2013). Economic approaches to organizations. 5th ed. Harlow, England: Pearson.

Dropulić, I. (2013). The effect of contingency factors on management control systems: a study of manufacturing companies in Croatia. *Economic research-Ekonomska istraživanja*, (1), 369-382.

Felício, T., Samagaio, A., & Rodrigues, R. (2021). Adoption of management control systems and performance in public sector organizations. *Journal of Business Research*, *124*, 593-602.

Fiedler, F. E. (1964). A contingency model of leadership effectiveness. In *Advances in experimental social psychology* (Vol. 1, pp. 149-190). Academic Press.

Fisher, J. G. (1998). Contingency theory, management control systems and firm outcomes: past results and future directions. *Behavioral research in accounting*, *10*, 47.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39. https://doi.org/10.2307/3151312.

Gakpo, M. D. Y. (2021). Corporate governance and performance of state-owned enterprises in Ghana. *International Academic Journal of Economics and Finance (IAJEF)*.

Ganescu, M. C. (2012). Assessing corporate social performance from a contingency theory perspective. *Procedia Economics and Finance*, *3*, 999-1004.

Gerdin, J., & Greve, J. (2004). Forms of contingency fit in management accounting research—a critical review. *Accounting, organizations and society*, *29*(3-4), 303-326.

Goodhue, D.L., Lewis, W., and Thompson, R. (2012). Does PLS have advantages for small sample size or non-normal data? MIS Quarterly, 36(3), 981-1001.

Govindarajan, V. (1984). Appropriateness of accounting data in performance evaluation: an empirical examination of environmental uncertainty as an intervening variable. *Accounting, organizations and society*, *9*(2), 125-135.

Guluma, T. F. (2021). The impact of corporate governance measures on firm performance: the influences of managerial overconfidence. *Future Business Journal*, *7*(1), 1-18.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, *45* (5), 616-632.

Hair, J. F., Sarstedt, M., & Ringle, C. M. (2019). Rethinking some of the rethinking of partial least squares. *European journal of marketing*, *53*(4), 566-584.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science*, *40*, 414-433.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed, a silver bullet. *Journal of Marketing theory and Practice*, *19*(2), 139-152.

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook* (p. 197). Springer Nature.

Hasanudin, A. I., Yuliansyah, Y., Said, J., & Susilowati, C. (2019). Management control system, corporate social responsibility, and firm performance. *Entrepreneurship and Sustainability Issues*, *6*(3), 1354.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, *43*, 115-135.

Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic management journal*, *20*(2), 195-204.

Hutomo, P. T. P., & Pudjiarti, E. S. (2018). Corporate governance and HRM practice on consumption product sector listed in Indonesia stock exchange. *European Research Studies*, *21*(3), 132-142.

Jensen, M. C., &Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, *3*(4), 305-360.

Kang, H., Cheng, M., & Gray, S. J. (2007). Corporate governance and board composition: Diversity and independence of Australian boards. *Corporate governance: An international review*, *15*(2), 194-207.

Kao, M. F., Hodgkinson, L., & Jaafar, A. (2019). Ownership structure, board of directors and firm performance: evidence from Taiwan. *Corporate Governance: The International Journal of Business in Society*, *19*(1), 189–216. https://doi.org/10.1108/cg-04-2018-0144.

Kaunda, E., & Pelser, T. (2022). A strategic corporate governance framework for state-owned enterprises in the developing economy. *Journal of Governance and Regulation*, *11*(2, special issue), 257–276. https://doi.org/10.22495/jgrv11i2siart5.

Keay, A., & Zhao, J. (2017). Transforming corporate governance in Chinese corporations: A journey, not a destination. *Nw. J. Int'l L. & Bus.*, *38*, 187.

Khan, S. N., Hussain, R. I., Maqbool, M. Q., Ali, E. I. E., & Numan, M. (2019). The mediating role of innovation between corporate governance and organizational performance: Moderating role of innovative culture in Pakistan textile sector. *Cogent Business & Management*.

Khongmalai, O., & Distanont, A. (2017). Corporate governance model in Thai state-owned enterprises: structural equation modelling approach. *Corporate Governance: The International Journal of Business in Society*, *17*(4), 613-628

Khajavi, S., & Dehghani, G. (2016). Board characteristics and managerial overconfidence in an emerging market. *International Journal of Economics and Financial Issues*, *6*(2), 529-537.

Kiranmai, J., & Mishra, R. K. (2019). Corporate governance practices in listed state-owned enterprises in India: Empirical research. *Indian Journal of Corporate Governance*, *12*(1), 94-121.

Kobuthi, E. N. (2018). *Corporate governance, strategy implementation, industry competition and performance of companies listed on the Nairobi securities exchange* (Doctoral dissertation).

Koufteros, X., Verghese, A. J., & Lucianetti, L. (2014). The effect of performance measurement systems on firm performance: A cross-sectional and a longitudinal study. *Journal of operations Management*, *32*(6), 313-336.

Kumar, S. (2018). Understanding Different Issues of Unit of Analysis in a Business Research. *Journal of General Management Research*, *5*(2).
Larcker, D. F., Richardson, S. A., & Tuna, I. R. (2007). Corporate governance, accounting outcomes, and organizational performance. *The accounting review*, *82*(4), 963-1008.
Law, K. S., Wong, C. S., & Mobley, W. M. (1998). Toward a taxonomy of multidimensional constructs. *Academy of management review*, *23*(4), 741-755.
Malmi, T., & Brown, D. A. (2008). Management control systems as a package-Opportunities, challenges and research directions. *Management accounting research*, *19*(4), 287-300.
Marnet, O. (2004). Behavioral aspects of corporate governance. In *Corporate Governance* (Vol. 9, pp. 265-285). Emerald Group Publishing Limited.
McDonald, D. (2020). Don't get too excited: the structural limits of state-owned enterprises in capitalist economies. In *The Routledge Handbook of State-owned Enterprises* (pp. 267-281). Routledge.
Merchant, K. A., & Van der Stede, W. A. (2012). Instructor's Manual.
Mhando, P. C. (2019). *Corporate governance in Tanzania: ethics and accountability at the crossroads*. Routledge.
Müller-Stewens, B., Widener, S. K., Möller, K., & Steinmann, J. C. (2020). The role of diagnostic and interactive control uses in innovation. *Accounting, Organizations and Society*, *80*, 101078.
Mutize, M., & Tefera, E. (2020). The Governance of State-Owned Enterprises in Africa: an analysis of selected cases. *Journal of Economics and Behavioral Studies*, *12*(2 (J)), 9-16.
OECD (2018), OECD Review of the Corporate Governance of State-Owned
Enterprises: Argentina.
Ogbechie, C. I. (2012). *Key determinants of effective board of directors-evidence from Nigeria* (Doctoral dissertation, Brunel University Brunel Business School PhD Theses).
Parker, D. (2020). State-owned enterprise and privatization: some lessons from the UK. In The Routledge handbook of state-*owned* enterprises (pp. 128-144). Routledge.
Rehman, S. U., Mohamed, R., & Ayoup, H. (2019). The mediating role of organizational capabilities between organizational performance and its determinants. *Journal of Global Entrepreneurship Research*, *9*(1), 1-23.
Ringle, C. M., & Sarstedt, M. (2016). Gain more insight from your PLS-SEM results: The importance-performance map analysis. *Industrial management & data systems*, *116*(9), 1865-1886.
Ringle, C. M., Wende, S., & Becker, J. M. (2015). SmartPLS. "SmartPLS 3." Boenningstedt: SmartPLS GmbH
Rughoobur, S. (2018). An assessment of good corporate governance in state owned enterprises of Mauritius. *Studies in Business and Economics*, *13*(1), 166-180.
Sachdev, S. B., & Verma, H. V. (2004). Relative importance of service quality dimensions: A multisectoral study. *Journal of services research*, *4*(1), 93.
Sandelin, M. (2008). Operation of management control practices as a package—A case study on control system variety in a growth firm context. *Management Accounting Research*, *19*(4), 324-343.
Sarstedt, M., Hair, J. F., Cheah, J. H., Becker, J. M., & Ringle, C. M. (2019). How to Specify, Estimate, and Validate Higher-Order Constructs in PLS-SEM. *Australasian Marketing Journal*, *27*(3), 197–211. https://doi.org/10.1016/j.ausmj.2019.05.003

Shahwan, T. M., & Fathalla, M. M. (2020). The mediating role of intellectual capital in corporate governance and the corporate performance relationship. *International Journal of Ethics and Systems*, *36*(4), 531-561.

Tahir, T. A., & Bernard, U. O. (2021). Curbing armed banditry in Nigeria: A panacea for good governance. *Zamfara Journal of Politics and Development*, *2*(2), 11-11

Turyakira, N., Nyamute, W., Okiro, K., & Wainaina, G. (2022). Corporate Governance and Performance of State-Owned Enterprises in Uganda. *African Development Finance Journal*, *4*(4), 14-37.

United Republic of Tanzania Office of the Treasury Registrar (OTR) (2022). *Treasury Registrar's Annual Operations Report for Financial Year 2020/21.*

Wilson, B., & Henseler, J. (2007). Modeling reflective higher-order constructs using three approaches with PLS path modeling: a Monte Carlo comparison. In *Australia-New Zealand Marketing Academy Conference, ANZMAC 2007: Reputation, Responsibility, Relevance* (pp. 791-800). ANZMAC.

Wold, H. (1982). Models for knowledge. *The making of statisticians*, 189-212.

World Bank, A. (2014). *Corporate Governance of State-Owned Enterprises: A Toolkit*. The World Bank.

Yi, Y., Liu, Y., He, H., & Li, Y. (2012). Environment, governance, controls, and radical innovation during institutional transitions. *Asia Pacific Journal of Management*, *29*(3), 689-708.

Zahoor, S., Yang, S., Ren, X., & Haider, S. A. (2022). Corporate governance and humble leadership as antecedents of corporate financial performance: monetary incentive as a moderator. *Frontiers in Psychology*, *13*, 904076.