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EFFECTIVE SUPREME AUDITING INSTITUTIONS, SOUND PUBLIC FINANCE MANAGEMENT AND NATIONAL DEVELOPMENT: LESSONS FOR ZIMBABWE'S OFFICE OF AUDITOR GENERAL

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ABSTRACT

Numerous reports on systemic public corruption, fraud, illicit financial outflows, and corporate mis-governance in Zimbabwe's public sector have brought the effectiveness of the country's supreme audit institution under intensive public foci. There are now urgent calls for the country's supreme audit institution to go beyond the traditional compliance-oriented cynosure by addressing challenges in the public sector that are encumbering national development. The aim of the paper is to interrogate with the aid of structural equation modelling the relationship among an effective supreme auditing institution, national development, and sound public finance management. Data was collected using a structured questionnaire administered on a multi-stage cluster sample of 210 public officials in Zimbabwe's public sector. We found the relationship among three statistically significant at 99% level of confidence implying that increasing audit effectiveness has both feedback and feedforward effects on sound public finance management and, national development. Strategies that enhance auditor independence, public sector financial accountability and public trust have been recommended for a robust public finance management and sustainable national development.

Contribution/Originality: The study makes a methodological contribution by pioneering the use of structural equation modelling in a developing economy to examine the nexus among public finance management, supreme auditing institutions and national development in developing economies.

1. INTRODUCTION AND BACKGROUND

Like in most developing economies, Zimbabwe's public sector has numerous socio-economic mandates that cocoon critical developmental aspirations such as; ensuring building quality public infrastructure, delivering positive education and health outcomes, providing clean water, sanitation and clean energy. If Zimbabwe's public sector is underpinned by strong public finance management systems and monitored by an effective supreme audit institution, this sector could be a critical antecedent for sustaining aggregate demand. The public sector can also support a strong foundation for the country's future economic growth by being a major tributary for national development.

Supreme auditing institutions (SAIs) are independent national-level institutions that have core objectives of conducting external audits for all government activities including government agencies and the public sector (World Bank, 2020). The supreme audit institution in Zimbabwe is the Office of the Auditor General (OAGZ). According to

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the country's constitution of 2013, the main roles of the OAGZ are to independently monitor organizational transparency, evaluate the integrity financial statements prepared by management, ensure compliance principles of good governance, safeguard on behalf of the general public financial and administrative accountability in the disbursement and use of public funds by the public officials. The OAGZ is guided by various supporting legislations such as the; Public Finance Management Act [Chapter 22:19], the Auditor Office Act [Chapter 22:18], the Public Accounts and Auditor's Act [Chapter 27:12] and International Accounting and Auditing Standards. The prudent and efficient oversight of the country's public sector the supreme audit institution is central to the eradication of vices like public corruption, fraud and money laundering (Jeppesen, 2019; Marjański, Sułkowski, Marjańska-Potakowska, & Staniszewska, 2019; Muzurura, 2020).

Despite the existence of a legally independent supreme audit institution and major progress towards reforming and building strong public finance management in the public sector, the country has failed to stop what can be termed the "development of under-development" Without an effective supreme audit institution, the combined aftermaths of enfeebled public finance management system, public corruption and illicit funds flows is likely to accentuate ongoing financial and economic fragilities that are existing in the country. To support national development, the OAGZ must be able to provide effective oversight on the management of public funds and also to produce audit findings and recommendations that are implementable (Matamande, 2016) trustworthy (Ortiz & Perez, 2016) reliable and credible (Raudla, Taro, Agu, & Douglas, 2016). The legal and public finance management framework mandates that in the provision of public goods and public officials must be accountable to various laws and regulations regarding the managing public funds.

The main objectives of this paper was to explore how an effective OAGZ can help in the building of sound public finance management in Zimbabwe's public sector and in turn contribute to national development. The study is significant for a number of reasons. First, there is huge lacuna in empirical literature and new methodologies that focus on the nexus among supreme audit institutions, sound public finance management and national development in the context of developing economies. Second building strong public institutions epitomized by high financial and administrative accountability, responsible management, ethical leadership and a high-performance culture could be a remedy for reducing ongoing economic de-growth and underdevelopment. Third, an inefficiently and ineffectively monitored public sector creates deadweight losses for the broader economy, and is likely to have strong multiplier effects on market failures that perpetuates abject poverty and national underdevelopment. Finally, goods that are produced by the public sector are non-rivalry, non-excludable and have no good revealed-preference mechanism. Therefore, without an effective supreme audit institutions and sound public finance management, the public sector is unlikely to contribute effectively and efficiently towards national development. This is because effective supreme audit institutions are colonnades for ensuring good public sector governance (Dzomira, 2017; Greenblott, O'Farrell, Olson, & Burchard, 2019) and also for ensuring that systems of internal controls are in place in order to safeguard organizational assets (Gustavson & Sundström, 2018). The rest of the study is organized as follows; the second section presents literature review, followed by methodology, findings and recommendation respectively.

2. THEORETICAL LITERATURE REVIEW

One of the most well-known theories that explains poor corporate governance in public finance management and supreme audit institutions is the principal-agent theory (Jensen & Meckling, 1976). The model assumes that public officials working in public finance and supreme audit institutions serve to protect the interests of the principal. However, in real practice the interests of public officials frequently deviate from the interests of the principal (Antohi et al., 2020; Bonollo, 2019; Hay & Cordery, 2021; Khaile, 2020). While the principal can prescribe the pay-off rules in the principal-agent relationship by instituting legislations, procedures and processes, there is informational asymmetry that favors the public official (Muzurura, 2020). The principal-agent theory distinguishes between the ownership and control (Eisenhardt, 1989). The owners are the principal and those that are charged with management

and control are called the agents. If both parties to the relationship strive to maximize their utility, there is the probability that the agent will choose to act in his interest, and neglect the interest of the principal. This often results in the conflict-of-interest problems particularly when it is difficult for the principal to monitor the agent's actions (Jensen & Meckling, 1976). Jensen and Meckling (1976) say that to resolve this conflict, the principal has the option of coming up with the incentives for the agent and limiting the conflicting activities of the agent by establishing appropriate monitoring and internal controls to mitigate the conflicts.

Eisenhardt (1989) posits that the agency theory largely focuses on resolving issues that are inherent in the agency relationship, that is, agency problems and problems of risk sharing. In contrast, the problem of risk sharing occurs when the principal and the agent have different risk tolerance levels. An agency problem occurs where the public official chooses to engage in a corrupt transaction, in prolongation of their own individual interests and to the disadvantage of the interests of the principal (Bonga, 2021; Bringselius, 2018). To limit the agency problem, the principal can come up with several incentives and schemes such as monitoring, bonding and oversight to constrain the agent's potential abuses (Gustavson & Sundström, 2018; Rodriguez-Vives, 2019). This also forces the principal to incur agency costs such as employing external auditors to monitor the agent's actions.

Fama and Jensen (1983) assert that agency costs are the costs of structuring and monitoring if there is conflicting interest in a contractual arrangement. Chen, Li, and Chi (2018) on the other hand, argues that in order to ensure optimal level of interest alignment and information asymmetry, both the principal and agent incur contrasting costs. The former incurs monitoring cost in subjecting the financial statements prepared by the agent to external audits and the later incur costs for internal controls. Related to agency theory are additional problems such as adverse selection and moral hazard problems that are also related to information asymmetry.

In the adverse selection problem, the principal is able to observe the agent's behavior but not the performance. In turn, if the performance of the agent cannot be properly measured, there is an increased probability that the agent's performance will be sub-optimal and hence, below expectations. On the contrary, moral hazard refers to the situation where the agent has an incentive to act contrary to the principal's instructions due to information asymmetry. This situation arises when the principal is not able to judge the agent's behavior but is able to judge the outcome. Antohi et al. (2020) argue that the requirement by the principal for complete finance reporting and adequate disclosures arises from information asymmetry and conflict of interests between the Board, management and outside shareholders. According to the credibility and adequacy of management disclosures are enhanced by regulations, laws, auditing and capital market intermediaries.

The information asymmetry can be used by the public official for his/her personal benefit by embarking on fraudulent activities (Karabayev, Sembiyeva, Zeinelgabdin, Beisenova, & Pankou, 2021). There are three broad groups of principal-agent relationships, based on the power and responsibilities enjoyed by the agent (Dobrowolski & Sułkowski, 2019). The two main sources of an agent's power come from informational asymmetry and contractual incompleteness (Khaile, 2020). First, the agent who is the public official may have a purely information-gathering role. In such instance, the power will come from the ability to manipulate such information like, board allowances and fees, tendering documents, changing bids and tempering with tender specifications (Nicol, 2020). Second, the principal might set some broad objectives for the agent such as ensuring most efficient governance processes and procedures; however, the agent has the power to choose the exact incentive mechanism for the clients.

The principal has some control, but delegates not only the implementation but also the design of the incentive mechanism to the Board (Gramling & Schneider, 2018; Jeppesen et al., 2017; Mubangizi, 2020). Third, the principal as in most cases may also simply transfer all the power to manage the public entity to the agent. Johnsen (2019) avers that in the case where the public official has excessive powers, the agent acts like a private monopolist. The second popular theory that explain corporate governance in the public sector is the stewardship model. Public accountability is a major hallmark of modern democratic governance (Heald, 2018). Democracy and national development only becomes effective if those in power can be held accountable in public for their acts and omissions, for their decisions,

their policies, and their expenditures (Svärdsten, 2019; Torres, Yetano, & Pina, 2019). The stewardship theory of corporate governance came into being due to the growing complexity of social relationships. In the accounting empirical literature, the genesis of the stewardship is generally traced to the medieval period or the feudal or the manorial system origin of stewardship accounting is generally traced to the medieval period (Hartley, Alford, Knies, & Douglas, 2017).

In financial reporting on stewardship, the central concern of auditors is mainly with large companies and state enterprises. In the later, the BoDs is accountable not only to the government but also society. As a steward in public sector, the Board of Directors (BoDs) and management's performance should be evaluated in terms of both surplus and the accomplishment of social objectives. It is important to note that in the public sector societal objectives such as protection of the environment, improving societal surplus and overall national development are often ignored by the external auditors. Due to recent evolution in the accounting profession, particularly the development of integrated financial reporting, SAIs are increasingly taking on the responsibility of ensuring that the BODs as the main steward is assessing management's social performance (Khaile, 2020). The principal-agent framework is a key theory that can be used to explain the functions of supreme audit institutions. Since the office of the Auditor General represents the government, the office can be considered the principal whilst officials working in the public sector are agents, hence the applicability of this model in analyzing the nexus among SAI, sound public finance management and national development.

3. EMPIRICAL LITERATURE

Strong and independent SAIs play a kingpin role in meeting the expectations of quality livelihoods by the general public living in developing countries (Bonga, 2021; Dzomira, 2017; Khaile, 2020; Mubangizi, 2020; Nicol, 2020). Both in developing and developed countries there is a strong correlation among sound public finance management and the achievement of social development goals (SDGs) such as those related to; equitably distribution of resources (Hay & Cordery, 2021; Ortiz & Perez, 2016; Raudla et al., 2016) provision of quality education (Masood & Lodhi, 2015; Mupfumira & Nyaruwata, 2021) delivering positive social and health outcomes (Antohi et al., 2020; Avis, Ferraz, & Finan, 2018; Karabayev et al., 2021) and the protection of human, animal and plant health (Dobrowolski & Sułkowski, 2019; World Bank, 2020).

Torres et al. (2019) show that if SAIs are independent and adhere to high levels of professionalism they contribute to the reduction of public deficit and gross public debt and hence, implicitly to higher efficiency and control of corruption. However, the concept of independence has proved difficult to precisely define. Others see independence as the conditional probability of reporting a discovered breach and the ability to resist pressure (Koma, 2016), an attitude or state of mind (Ge & Zhang, 2017) a function of character, the absence of interests that create an unacceptable risk of bias. When SAIs are well-functioning and independent, they play a critical role in ensuring the effective use of public resources (Cameran, Ditillo, & Pettinicchio, 2018; Fisman & Golden, 2017; Kouiri, Agouram, & Kadouri, 2021), sound public finance management (Matamande, 2016; Nyamita et al., 2015; Zuccolotto & Teixeira, 2014) and proper execution of administration activities (World Bank, 2020). Public officials become disadvantaged if they engage in fraud (Torres et al., 2019) corruption (Raudla et al., 2016) and money laundering vices (Muzurura, 2020) and deadweight losses are reduced (Bonga, 2021; Brusca, Caperchione, Cohen, & Manes-Rossi, 2018). Karabayev et al. (2021) show that organizational independence permits the external audit to conduct audits without interference by the entity being audited.

Jeppesen (2019) concurs that the auditor should have sufficient independence in order to conduct audits without government interference. Autonomy refers to the degree to which the SAIs, and ultimately the auditor general, decide which audits to undertake and how to organize the audits (Brusca et al., 2018) The extent to which the government, parliament, Schelker and Eichenberger (2010) reveal that when the independence of SAI is increased, tax rates, tax burden and public expenditure decreases. However, Blume and Voigt (2011) in a study of South Africa show no major

relationship between SAI's independence and fiscal policy, government effectiveness and national productivity. SAIs contribute to good governance, transparency, and accountability by providing credible and timely audit results to legislatures, government, civil society, and the general public (Ahlbäck & Bringselius, 2015; Hay & Cordery, 2021; Machinjike, Bonga, & Hundi, 2021).

Various stakeholders expect public sector entities to deliver and report against many goals that include effective and efficient delivery of social outcomes, fairness and justice (Hartley et al., 2017). Empirical literature cites several challenges that impinge on SAIs contribution to public finance management including; undue political influence affecting functional independence, restricted access to information required to perform effective external audits; lacking the ability to enforce compliance with auditing findings and recommendations, inadequate budget to fund audit plans and salaries, lack of relevant professional competencies required for effective auditing, and weak interactions with parliament (Bonga, 2021; Brusca et al., 2018; Gramling & Schneider, 2018; World Bank, 2020).

4. CONCEPTUAL FRAMEWORK DEVELOPMENT

The research departs from qualitative research approaches and ordinary least regression equations by adopting structural equation modelling (SEM). SEM allows for the simultaneous tests of complex and multidimensional relationships as envisaged in this paper. Compared with probabilistic and liner regression models where constructs may be represented with only one measure and measurement error is not modelled, a SEM allows for the use of multiple measures to represent constructs and, also address the issue of measure-specific error. In turn, this has the advantage that it allows the research to establish the construct validity of factors where there are many hypotheses. Starting from a simple univariate linear Equation 1:

$$ND = f(X) \tag{1}$$

Where ND is some measure of national development (ND) and X is a vector of aggregated determinants of national developments such as sound public finance management (SPF) and effective Office of the Auditor General (OAGZ). We can therefore regroup the elements of the vector X into sub-sectoral vectors as shown in Equation 2:

$$ND = f(PFM, SAI) \tag{2}$$

Transforming Equation 2 into a Cobb Douglas Equation 3.

$$ND = \forall \Sigma SPFM^{\beta} \Sigma SAI^{\phi} \tag{3}$$

Where β, ϕ and ρ are elasticities $\forall$ measures initial national development if the country has an effective supreme audit institution and sound public finance management. We can further disaggregate Equation 3 to be represented by variables such as: financial accountability (FIN), independence (IND), sanctions (SAN), ethical leadership (ETHL), transparency (TRA), stakeholder management (SHM) and public value of audits (PUBV) effectiveness of the office of the Auditor General (EOAGZ). SEMs have latent variables that are important to a model, and observed variables are part of the analysis. In this regard, the latent were conveniently divided into two parts; the latent variable and the measurement model as shown in Equation 4:

$$\eta_i = \alpha_\eta + B\eta_i + \Gamma\xi_i + \zeta_i \tag{4}$$

Where η_i represent a vector of latent endogenous variables for unit i, α_η is a vector of intercept terms for the equation. B represents the matrix of coefficients giving the expected effects of the latent endogenous variables (η) on each other, ξ_i is the vector of latent exogenous variables such as financial accountability, transparency and independence, Γ is the coefficient matrix giving the expected effects of the latent exogenous variables on the latent endogenous variables(η) and, ζ_i is white noise disturbances. The subscript I in Equation 4 indexes the ith case in the sample. The latent variables reflect our hypotheses. The measurement variable that links the latent variables to the observed indicators or responses is given by the following two equations; Equation 5 and Equation 6:

$$y_i = \alpha_y + \Lambda_y \eta_i + \varepsilon \tag{5}$$

$$x_i = \alpha_x + \Lambda_x \xi_i + \varrho_i \tag{6}$$

Where, y_i and x_i are vectors of the observed indicators of η_i and ξ_i respectively and Λ_y and Λ_x are matrices of the factor loadings also known as regression coefficients, giving the impact of the latent η_i and ξ_i on y_i and x_i, respectively, and ε and ϱ_i are the unique factors of y_i and x_i. Assume that ε and ϱ_i have expected values of 0, have covariances of $\Sigma \varepsilon\varepsilon$ and $\Sigma\varrho\varrho$ and are also uncorrelated with each other and with ξ_i and ζ_i. α_y and α_x are intercepts. The error is assumed to be absent in SEMs, and if we make this assumption then $\alpha_x = 0$, $\Lambda_x = 1$, $\Sigma\varrho\varrho = 0$, $\alpha_y = 0$, and $\Sigma \varepsilon\varepsilon = 0$. This follows also from the assumption that there is a single observed variable for each latent variable. Hence, the latent variable equation becomes;

$$y_i = By_i + \Gamma x_i + \xi_i \tag{7}$$

After linearizing the Cobb Douglas function, the unstandardized structural Equation 7 can be extended in the more familiar form as shown in Equation 8.

$$ND = \alpha + \beta_1 FIN + \beta_2 IND + \beta_3 SAN + \beta_3 ETHL + \beta_4 CL + \beta_5 TRA + \rho_1 EC + \rho_2 SPFM + \propto_t \tag{8}$$

4.1. Development of Hypotheses (H₁-H₃)

A sound public finance management with an independent and effective monitoring mechanism is likely to benefit marginalized communities in both rural and urban areas through the provision of quality public infrastructure, generation of employment, reduction of abject poverty and also, can lead to improvement in the delivery of positive health, education and social outcomes (Crosby, Hart, & Torfing, 2017; Nzewi & Musokeru, 2014). Sound public finance management creates savings that can be channeled to support government policies aimed at reducing inflation (Jeppesen et al., 2017; Muzurura, 2020) creating full employment, stabilizing prices (Karabayev et al., 2021; Kastberg & Österberg, 2017) and increasing economic growth (Bryson, Sancino, Benington, & Sørensen, 2017; Greenblott et al., 2019; Gustavson & Sundström, 2018). Therefore, it is posited that; H₁: Sound public finance management in Zimbabwe's public sector positively contributes to national development.

To be considered effective supreme audit institutions should be transparent, independent (Fisman & Golden, 2017) produce reports that create public value (Blume & Voigt, 2011; Hartley et al., 2017) in a study of South Africa show that there is a positive relationship between SAI's independence and fiscal policy, government effectiveness and national development. Fisman and Golden (2017) assesses the impact of SAIs on the sustainability of public finances, the size and dynamics of government deficit and gross public debt and show that an effective SAI positively contributes to sound public finance management. Therefore, it is hypothesized that: H₂: An effective Office of the Auditor General positively influences the development of sound public finance management in Zimbabwe's public sector.

A number of studies show a bi-directional relationship between national development and sound public finance management (Muzurura, 2020). It is generally accepted that the extend of national development reflects the quality of public finance management (Rodriguez-Vives, 2019). As a nation develops overtime, the robustness and quality of public institutions increase due to the development of strong legal and regulatory framework. National development is also a precursor of sound public finance management (Zuccolotto & Teixeira, 2014). This suggests the likelihood of an endogenous relationship between national development and sound public finance management. It is therefore postulated that: H₃: National development positively influences the development of a strong public finance management in Zimbabwe's public sector.

4.2. Questionnaire Design, Sampling and Measures

The questionnaire was designed with three sections, effectiveness of the Office of the Auditor General (EOAGZ), public finance management (PFM) and National Development. (ND). The EOGZ was measured by a number of variables such as Transparency (TRA), auditor independence (IND), public value of audit reports (PUBV), auditor sanctions (SAN), stakeholder management (SHM) and ethical leadership (ETHL). A multi-stage stratified sampling

was used to choose the respondents from government agencies, state entities, parastatals and local government authorities.

A cross-section of 210 public officials was chosen from state entities, parastatals, government departments and local authorities. The structural regression equation was tested for multi-collinearity and goodness of fit test that included; the Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI),Tucker-Lewis Index (TLI), the Normed Fit Index (NFI), Non-Normed Fit Index (NNFI) , Standardized Root Mean Square Residual (SRMR) (see (Rosellini & Brown, 2011; Rudolph, Troop-Gordon, Hessel, & Schmidt, 2011; Wang & Zhang, 2011)) the Incremental Fit Index (IFI) (see Enders (2011)) the goodness-of-fit index (GFI) (see Bentler (2009)) the chi-square goodness-of-fit (CMIN/DF) (see Bentler and Satorra (2010)) the adjusted goodness-of-fit index (AGFI) (see Bentler and Yuan (2011)).

5. MAIN FINDINGS

5.1. Descriptive Statistics

The descriptive statistics, that is the Cronbach's Alpha (CA), Composite Reliability (CR), and Average Variance Extracted (AVE), standardized factor loadings and correlations for the constrict were calculated and are presented in Table 1.

Table 1. Reliability and validity analysis results.

Variable	Cronbach's Alpha (CA)	Composite Reliability (CR)	Average Variance Extracted (AVE)
EOAGZ	0.710	0.867	0.766
FINA	0.778	0.845	0.523
IND	0.783	0.847	0.532
PUBV	0.768	0.808	0.514
TRA	0.705	0.801	0.509
SAN	0.847	0.888	0.614
SHM	0.908	0.925	0.578
ETHL	0.761	0.836	0.510
SPFM	0.757	0.839	0.517

Note: EOAGZ, Effectiveness of the Office of the Auditor General; FINA, Financial Accountability; IND, Auditor Independence, PUBV, Public Value of Audit Reports; TRA, Transparency; SAN, Auditor Sanctions, SHM, Stakeholder Management, ETHL, Ethical Leadership, SPFM, Supreme Public Finance Management.

The results displayed in Table 1, shows that the CA values range from 0.705 to 0.908 suggesting the presence of internal consistency of the measurement items. Hair, Sarstedt, Hopkins, and Kuppelwieser (2014) recommend a CR value which is above 0.7 for reliability. Table 1 depicts all the CR values are above the threshold value of 0.7. The AVE values exceed the threshold value of 0.5. suggesting that the measurement items are reliable (Bentler & Yuan, 2011).

5.2. Cross Factor Loadings

The cross-loadings were calculated to examine convergent validity of the factors and the results are summarized in Table 2.

According to Table 2 results, all the cross-loadings displayed suggest the existence of convergent validity on the measurement items as they are all above 0.5 (Hu & Bentler, 1998). The items with standardized factor loadings that were below 0.5 were removed from the model following the advice of Bentler and Satorra (2010) who recommend suppressing factor loadings less than 0.3.

Table 2. Cross factor loadings.

Variable	EOAGZ	FINA	IND	PUBV	TRA	SAN	SHM	ETHL	SPFM
EOAGZ1	0.811	0.225	0.241	-0.019	0.009	0.122	0.048	0.01	0.062
EOAGZ4	0.935	0.262	0.26	-0.015	0.038	0.084	0.077	0.04	0.108
FINA1	0.314	0.723	0.325	0.060	0.088	0.05	0.152	0.162	0.142
FINA2	0.168	0.766	0.285	0.003	0.054	0.104	0.121	0.123	0.135
FINA3	0.198	0.657	0.248	0.039	0.053	0.047	0.054	0.041	0.085
FINA6	0.146	0.655	0.247	0.045	-0.032	0.000	0.017	0.071	0.014
FINA7	0.184	0.804	0.260	0.061	0.057	0.092	0.123	0.113	0.134
IND1	0.115	0.314	0.786	0.038	0.088	0.187	0.110	0.223	0.126
IND2	0.265	0.298	0.819	0.081	0.147	0.223	0.181	0.241	0.204
IND3	0.279	0.265	0.576	0.012	-0.007	0.083	0.053	0.145	0.049
IND5	0.219	0.306	0.814	0.150	0.195	0.110	0.165	0.162	0.167
IND6	0.234	0.202	0.613	0.036	0.073	0.138	0.088	0.128	0.117
PUBV1	-0.038	0.098	0.054	0.735	0.292	0.187	0.335	0.262	0.316
PUBV2	-0.013	0.005	0.067	0.648	0.196	0.297	0.240	0.203	0.258
PUBV3	0.044	0.076	0.093	0.782	0.304	0.351	0.355	0.309	0.336
PUBV4	-0.055	-0.032	0.066	0.696	0.215	0.326	0.287	0.275	0.289
TRA1	0.011	0.136	0.203	0.280	0.711	0.230	0.705	0.736	0.592
TRA2	0.100	0.086	0.149	0.360	0.863	0.286	0.807	0.648	0.713
TRA3	-0.026	0.019	0.031	0.129	0.717	0.196	0.523	0.377	0.554
TRA4	-0.048	-0.122	0.037	0.233	0.523	0.125	0.318	0.247	0.312
SAN1	0.043	0.093	0.212	0.376	0.316	0.822	0.369	0.385	0.418
SAN2	0.059	0.051	0.128	0.319	0.211	0.789	0.335	0.300	0.418
SAN4	0.140	0.082	0.141	0.347	0.206	0.775	0.305	0.341	0.363
SAN5	-0.008	0.037	0.123	0.207	0.082	0.696	0.132	0.226	0.171
SAN6	0.146	0.086	0.213	0.300	0.295	0.830	0.345	0.359	0.500
SHM1	-0.011	0.026	0.052	0.306	0.615	0.287	0.748	0.784	0.643
SHM2	0.048	0.125	0.15	0.386	0.658	0.361	0.820	0.838	0.710
SHM3	0.011	0.136	0.203	0.280	0.711	0.23	0.705	0.736	0.592
SHM4	0.110	0.095	0.160	0.377	0.846	0.321	0.820	0.655	0.721
SHM5	0.024	0.083	0.092	0.258	0.745	0.319	0.761	0.590	0.781
SHM6	0.074	0.111	0.118	0.338	0.629	0.358	0.749	0.636	0.645
SHM7	0.130	0.163	0.143	0.228	0.486	0.247	0.652	0.532	0.690
SHM8	0.031	0.119	0.125	0.318	0.627	0.347	0.802	0.661	0.813
SHM9	0.082	0.130	0.182	0.429	0.604	0.266	0.768	0.592	0.786
TRA1	0.151	0.258	0.306	0.192	0.281	0.408	0.357	0.573	0.379
TRA2	0.175	0.113	0.310	0.109	0.257	0.335	0.359	0.589	0.347
TRA4	-0.011	0.026	0.052	0.306	0.615	0.287	0.748	0.784	0.643
TRA5	0.025	0.087	0.157	0.364	0.635	0.357	0.798	0.846	0.686
TRA6	0.009	0.132	0.206	0.270	0.705	0.223	0.699	0.738	0.584
SPFM1	0.009	0.069	0.076	0.231	0.760	0.266	0.736	0.574	0.762
SPFM4	0.146	0.086	0.213	0.300	0.295	0.83	0.345	0.359	0.500
SPFM5	0.130	0.163	0.143	0.228	0.486	0.247	0.652	0.532	0.690
SPFM6	0.031	0.119	0.125	0.318	0.627	0.347	0.802	0.661	0.813
SPFM7	0.082	0.130	0.182	0.429	0.604	0.266	0.768	0.592	0.786

5.3. Discriminant Validity Tests

Discriminant validity of the constructs was examined through inter-constructs correlations. Inter-constructs correlations are displayed in Table 3.

Table 3. Inter-construct correlations.

Variable	EOAGZ	FINA	IND	PUBV	TRA	SAN	SHM	ETHL	SPFM
EOAGZ	0.875								
FINA	0.279	0.723							
IND	0.285	0.376	0.729						
PUBV	-0.019	0.056	0.098	0.717					
TRA	0.030	0.071	0.160	0.355	0.714				
SAN	0.111	0.093	0.215	0.404	0.305	0.784			
SHM	0.074	0.145	0.178	0.428	0.665	0.402	0.76		
ETHL	0.07	0.151	0.252	0.368	0.741	0.43	0.675	0.714	
SPFM	0.102	0.157	0.199	0.42	0.691	0.509	0.641	0.708	0.719

Note: Note: EOAGZ, Effectiveness of the Office of the Auditor General; FINA, Financial Accountability; IND, Auditor Independence, PUBV, Public Value of Audit Reports; TRA, Transparency; SAN, Auditor Sanctions, SHM, Stakeholder Management, ETHL, Ethical Leadership, SPFM, Supreme Public Finance Management.

Table 3 show that there is no multi-collinearity since all inter-constructs values are below 0.80 (Hu & Bentler, 1998). Discriminant validity exist on all the measurement items as evidenced by the AVE that is above inter-construct correlations (Hung, 2010).

5.4. Convergent Reliability Measurers

5.4.1. Goodness of Fit

The standardized Root Model Square residual (SRMSR) and Normed Fit Index (NFI) values displayed in Table 4 all met the recommended threshold values. The SRMSR should be less than 0.08 and the NFI not above 0.9 (Maydeu-Olivares, Coffman, Garc´ıa-Forero, & Gallardo- Pujol, 2010; Preacher & Kelley, 2011; Schafer & Graham, 2002). The SRMSR and NFI are 0.073 and 0.816 suggesting that the structural model is reliable.

Table 4 shows goodness of fit statistics.

Table 4. Goodness of fit results.

SRMSR	NFI
0.073	0.816

5.4.2. Baseline Comparisons Tests

Additional baseline comparison for goodness of fit are presented in Table 5. The baseline comparison is common approach used by several researchers to evaluate model fitness tests (Bentler & Satorra, 2010; Bentler, 2009; Bentler & Savalei, 2010). The Comparative Fit Index (CFI), compare the current model fit to a default model.

Table 5. Baseline comparisons tests.

Model	NFI	RFI	IFI	TLI	CFI
Default model	0.810	0.971	0.999	0.999	0.999
Saturated model	1.000	1.000	1.000	1.000	1.000
Independence model	0.000	0.000	0.000	0.000	0.000

Findings in Table 5 demonstrate that convergent validity was achieved for all indices. The CFI scale ranges from 0 to 1, with 0 being the lowest and 1 being the highest (Hung, 2010). As shown in Table 5, the measurement model fit indices, namely, the Normed Fit Index (NFI) (0.810), Relative Fit Index (RFI) 0.971, Incremental Fit Index (IFI) 0.999, Tucker Lewis Index (TLI) (0.999) and Comparative Fit Index (CFI) (0.999) were all acceptable as they are all close to threshold of 1. NFI, CFI, TLI, IFI and NFI should be close to 1 if the model is to be accepted (Bentler & Yuan, 2011; Bentler, 2009; Bentler & Savalei, 2010; Enders, 2011; Hu & Bentler, 1999).

5.4.3. The Root Mean Square Error of Approximation (RMSEA) Test

The RMSEA is a measure of non-centrality relative to the sample size and degrees of freedom and another way of measuring convergent reliability (Bentler, 2009; Enders, 2011; Hu & Bentler, 1999).

Table 6. RMSEA test.

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.005	0.000	0.009	1.000
Independence model	0.144	0.143	0.145	0.000

Values of less than 0.06 are deemed good fitting whilst values greater than 0.10 are considered poor fitting models as shown in Table 6 the RMSEA is 0.005 well below 0.05 suggesting a good fit at 90% confidence limit. For the independence model the reliabilities are above a cut of 0.50 suggesting that the model is also acceptable.

5.5. Structural Model Path Coefficients

A structural model was fitted and Table 7 shows the path coefficients for the structural equation model.

Table 7. Structural model path coefficients.

Hypothesis	Relationship	Coefficient	T statistic	P-values	Decision
H1	EOAGZ -> SPFM	0.003	2.518	0.001	Supported
H2	ND -> SPFM	1.223	16.528	0.000	Supported
H3	SPFM -> ND	0.057	6.603	0.000	Supported

The results in Table 7 shows that EOAGZ had a positive influence on SPFM (β = 0.003, p < 0.01), OAGZ had a positive influence on the Supreme Effectiveness of the Office of the Auditor General (SOAGZ) (β = 0.046, p <0.05), PUBV had a negative influence on SPFM (β = -0.037, p <0.1), SAN had a positive influence on SPFM (β = 0.186, p < 0.01), ND had a positive influence on SPFM (β = 1.223, p <0.01) and SPFM had a positive influence on ND (β = 0.057, p <0.01). This means that the relation among the Office of the Auditor General (OAGZ), sound public finance management and national development is robust.
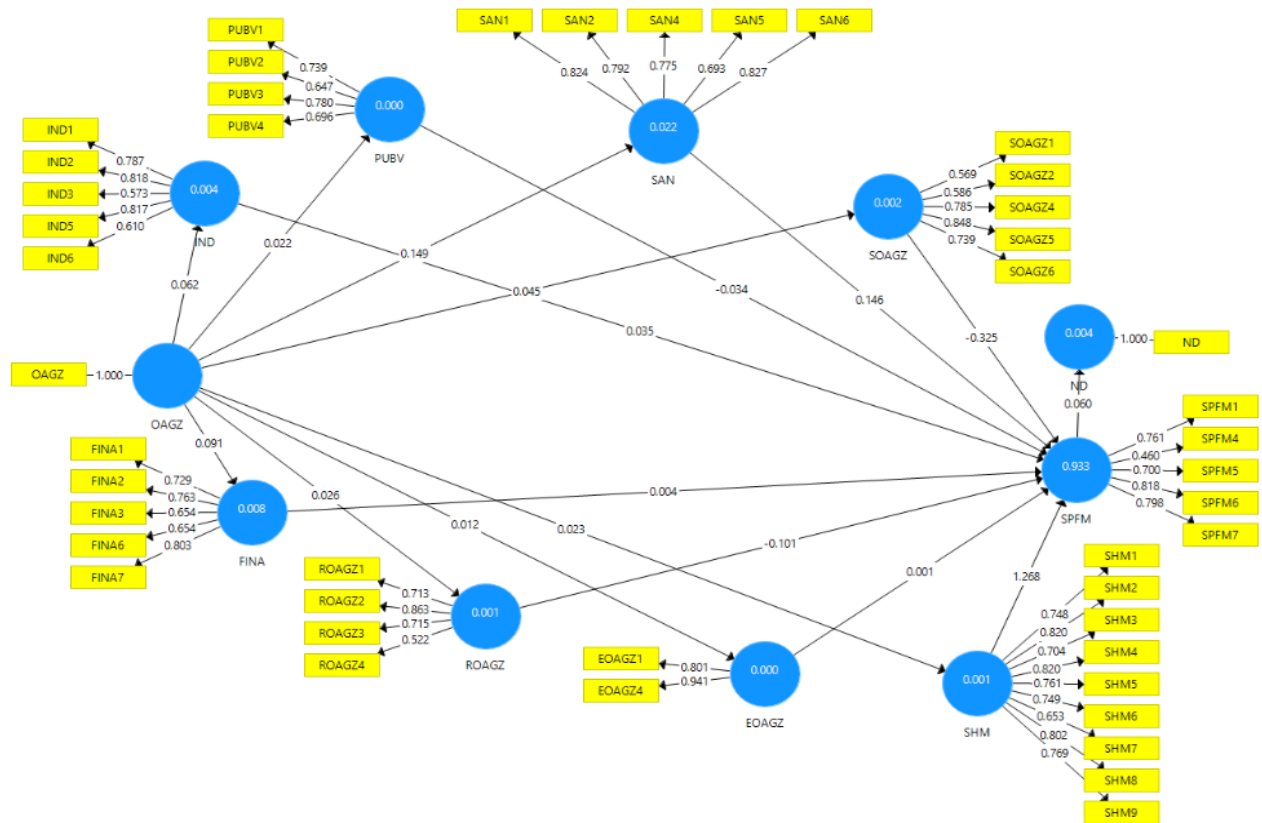

Figure 1. SEM model.

5.6. The Structural Model together with the Path Coefficients

According to Figure 1, most of the relationships are positive except for the relationship between the Relative Effectiveness of the Office of the Auditor General (ROAGZ) and SPFM, SAN and SPFM as well as PUBV and SPFM because of the negative path coefficient values. As noted from Figure 1, 93.3% total variability in SPFM is being explained in the model by the independent variables implying an overall high goodness of fit for the entire model. If EOAGZ is increased by 1%, public finance management in state entities and parastatals will increase by 0.3 percent at 99% percent confidence level. If the OAGZ increases its interactions with various stakeholder holders (SHM) by 1%, PFM increases by 122%. The results suggest that it is important for the Office of the Auditor General to adopt policies that aimed at giving feedback to different stakeholders about its findings or major hindrances constraining

the office from exercising its effective oversight mandate, for example inadequate funding of interference with its autonomy. This finding is supported by a number of studies (see (Gramling & Schneider, 2018; Novo-Corti & Picatoste, 2019)). If the independence of the Office of the Auditor General is increased by a factor of 1, then PFM improves by a factor of 4 at 99 percent level of confidence. The results imply that an independent supreme audit in terms of functional and legal independence, the play a critical role in ensuring the effective use of public resources and the ability to enforce compliance with auditing findings. Similar findings are reported in many studies (Bonga, 2021; Brusca et al., 2018; Fisman & Golden, 2017; Matamande, 2016; World Bank, 2020). Auditor autonomy is also important in instances where there is huge wastage of public resources amid a sea of poverty as shown by studies by the World Bank (2020). If the ability to mete auditor sanctions (SAN) is increased by 1%, PFM improves by 19%. The findings agree with research in other developing countries in which supreme audit institutions have the power to mete audit sanctions to public officials who depart from following sound public finance management (Gramling & Schneider, 2018; Johnsen, 2019). If financial accountability (FINA) in the public sector increases by 1 %, PFM improves by 0.40% at 99% level of confidence. Similar observations have been reported elsewhere by Brusca et al. (2018) and in Zimbabwe by Matamande (2016) and Dzomira (2017).

Finally, that findings show that if public finance management systems in the public sector increases by 1%, national development (ND) will increase by 6%. Building strong public institutions like the Office of the Audit General is likely to improve the efficient management of public resources which in turn can stimulate economic growth and national development. The finding has important implications for Zimbabwe, a country that has been undergoing a period on national de-growth in the past two decades. Sound public finance management in the public sector is a critical culvert for the provision of developmental pillars such as; quality public infrastructure, delivery of good education, social and health outcomes. Support for PFM as a tool for national development has been reported by various studies (Koma, 2016). In the context of Zimbabwe, this finding is also supported by Matamande (2016).

6. CONCLUSION AND RECOMMENDATIONS

The Parliament of Zimbabwe should broaden the remit of the Office of the Auditor General by ensuring that this office is truly functional and legal independent from third party interference. This is key to increasing to the public value of audits, transparency, financial accountability, and credibility essential pillars for a sound public finance management. In order for Zimbabwe's public sector to contribute meaningful to national development as per the aspirations of the Constitution, Parliament of Zimbabwe should without delay align sections 28, 82 (1) the Public Finance Management Act [Chapter 22:19] with sections 298, 299, 308 (4), 309 (2)(a) and 311 of the Constitution.

Given the indispensable oversight role played by the Office of the Auditor General, and the need to curb corruption and wasteful expenditure by public officials, it is recommended that the PFM Act [Chapter 22:19] and the Auditor General Act be amended in order to give Auditor General prosecutorial powers to enforce recommendations and punish corrupt and inept public officials. Traditionally, the OAGZ audits has been focusing on the three E's; economy, efficiency and effectiveness. The study recommends that the OAGZ should now focus on audit strategies that enhance an ethical culture in the public sector. This strategy might lead to a shift in focus from economic theory and a compliance-focused audit approaches, reinforcing the need to safeguard public interest rather than political interest.

REFERENCES

Ahlbäck, Ö. S., & Bringselius, L. (2015). Professionalism and organizational performance in the wake of new managerialism. *European Political Science Review*, 7(4), 499-523.Available at: https://doi.org/10.1017/s1755773914000307.

Antohi, V.-M., Zlati, M. L., Ionescu, R. V., Neculita, M., Rusu, R., & Constantin, A. (2020). Attracting European funds in the Romanian economy and leverage points for securing their sustainable management: A critical auditing analysis. *Sustainability, 12*(13), 1-27.Available at: https://doi.org/10.3390/su12135458.

Avis, E., Ferraz, C., & Finan, F. (2018). Do government audits reduce corruption? Estimating the impacts of exposing corrupt politicians. *Journal of Political Economy, 126*(5), 1912-1964.Available at: https://doi.org/10.1086/699209.

Bentler, P. M., & Yuan, K.-H. (2011). Positive definiteness via off-diagonal scaling of a symmetric indefinite matrix. *Psychometrika, 76*(1), 119-123.Available at: https://doi.org/10.1007/s11336-010-9191-3.

Bentler, P. M., & Satorra, A. (2010). Testing model nesting and equivalence. *Psychological Methods, 15*(2), 111-123.Available at: https://doi.org/10.1037/a0019625.

Bentler, P. M. (2009). Alpha, dimension-free, and model-based internal consistency reliability. *Psychometrika, 74*(1), 137-143.Available at: https://doi.org/10.1007/s11336-008-9100-1.

Bentler, P. M., & Savalei, V. (2010). Analysis of correlation structures: Current status and open problems. In S. Kolenikov, D. Steinley, & L. Thombs (Eds.), Statistics in the social sciences: Current methodological developments (pp. 1–36). Hoboken NJ: Wiley.

Blume, L., & Voigt, S. (2011). Does organizational design of supreme audit institutions matter? A cross-country assessment. *European Journal of Political Economy, 27*(2), 215-229.Available at: https://doi.org/10.1016/j.ejpoleco.2010.07.001.

Bonga, W. G. (2021). Corruption prevalence in SADC regional bloc. *Quest Journals' Journal of Research in Humanities and Social Science, 9*(1), 08-16.

Bonollo, E. (2019). Measuring supreme audit institutions' outcomes: Current literature and future insights. *Public Money & Management, 39*(7), 468-477.Available at: https://doi.org/10.1080/09540962.2019.1583887.

Bringselius, L. (2018). Efficiency, economy and effectiveness—but what about ethics? Supreme audit institutions at a critical juncture. *Public Money & Management, 38*(2), 105-110.Available at: https://doi.org/10.1080/09540962.2018.1407137.

Brusca, I., Caperchione, E., Cohen, S., & Manes-Rossi, F. (2018). IPSAS, EPSAS and other challenges in European public sector accounting and auditing, The Palgrave Handbook of Public Administration and Management in Europe, editors E. Ongaro & S. van Thiel *UK* (pp. 165-185). Palgrave Macmillan.

Bryson, J., Sancino, A., Benington, J., & Sørensen, E. (2017). Towards a multi-actor theory of public value co-creation. *Public Management Review, 19*(5), 640-654.Available at: https://doi.org/10.1080/14719037.2016.1192164.

Cameran, M., Ditillo, A., & Pettinicchio, A. (2018). Audit team attributes matter: How diversity affects audit quality. *European Accounting Review, 27*(4), 595–621.

Chen, S., Li, Z., & Chi, W. (2018). Client importance and audit quality: Evidence from China. *Asia-Pacific Journal of Accounting & Economics, 25*(5), 624–638.Available at: https://doi.org/10.1080/16081625.2016.1268061.

Crosby, B. C., Hart, t. P., & Torfing, J. (2017). Public value creation through collaborative innovation. *Public Management Review, 19*(5), 655-669.Available at: https://doi.org/10.1080/14719037.2016.1192165.

Dobrowolski, Z., & Sułkowski, Ł. (2019). Implementing a sustainable model for anti-money laundering in the United Nations development goals. *Sustainability, 12*(1), 1-23.Available at: https://doi.org/10.3390/su12010244.

Dzomira, I. (2017). Financial accountability & governance in an emerging country. *Corporate Ownership & Control, 14*(3-1), 204-208.Available at: https://doi.org/10.22495/cocv14i3c1art6.

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review, 14*(1), 57-74.

Enders, C. (2011). Missing not at random models for latent growth curve analyses. *Psychological Methods, 16*(1), 1-16.Available at: https://doi.org/10.1037/a0022640.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics, 26*(2), 301-325.

Fisman, R., & Golden, M. A. (2017). *Corruption: What everyone needs to know.* New York: Oxford University Press Inc.

Ge, R., & Zhang, J. J. (2017). Regulatory investigations of audit partners and audit quality improvement. *China Journal of Accounting Studies, 5*(3), 275–293.

Gramling, A., & Schneider, A. (2018). Effects of reporting relationship and type of internal control deficiency on internal auditors' internal control evaluations. *Managerial Auditing Journal, 33*(3), 318-335.Available at: https://doi.org/10.1108/maj-07-2017-1606.

Greenblott, J. M., O'Farrell, T., Olson, R., & Burchard, B. (2019). Strategic foresight in the federal government: A survey of methods, resources, and institutional arrangements. *World Futures Review, 11*(3), 245-266.Available at: https://doi.org/10.1177/1946756718814908.

Gustavson, M., & Sundström, A. (2018). Organizing the audit society: Does good auditing generate less public sector corruption? *Administration & Society, 50*(10), 1508-1532.Available at: https://doi.org/10.1177/0095399716674306.

Hair, J. J., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modelling (PLS-SEM) an emerging tool in business research. *European Business Review, 26*(2), 106-121.Available at: https://doi.org/10.1108/ebr-10-2013-0128.

Hartley, J., Alford, J., Knies, E., & Douglas, S. (2017). Towards an empirical research agenda for public value theory. *Public Management Review, 19*(5), 670–685.

Hay, D., & Cordery, C. J. (2021). Evidence about the value of financial statement audit in the public sector. *Public Money & Management, 41*(4), 304-314.Available at: https://doi.org/10.1080/09540962.2020.1729532.

Heald, D. (2018). Transparency-generated trust: The problematic theorization of public audit. *Financial Accountability & Management, 34*(4), 317-335.Available at: https://doi.org/10.1111/faam.12175.

Hu, L.-T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods, 3*(4), 424-453.

Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1-55.Available at: https://doi.org/10.1080/10705519909540118.

Hung, L. F. (2010). The multigroup multilevel categorical latent growth curve models. *Multivariate Behavioural Research, 45*(2), 359–392.

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.Available at: https://doi.org/10.1016/0304-405x(76)90026-x.

Jeppesen, K. K. (2019). The role of auditing in the fight against corruption. *The British Accounting Review, 51*(5), 100798.Available at: https://doi.org/10.1016/j.bar.2018.06.001.

Jeppesen, K. K., Carrington, T., Catasús, B., Johnsen, Å., Reichborn-Kjennerud, K., & Vakkuri, J. (2017). The strategic options of supreme audit institutions: The case of four Nordic countries. *Financial Accountability & Management, 33*(2), 146-170.Available at: https://doi.org/10.1111/faam.12118.

Johnsen, Å. (2019). Public sector audit in contemporary society: A short review and introduction. *Financial Accountability & Management, 35*(2), 121-127.Available at: https://doi.org/10.1111/faam.12191.

Karabayev, E. B., Sembiyeva, L. M., Zeinelgabdin, A. B., Beisenova, L. Z., & Pankou, D. A. (2021). The role of external public audit in ensuring the financial stability of the budgets of developing countries. *Public Policy and Administration, 20*(1), 108-117.Available at: https://doi.org/10.5755/j01.ppaa.20.1.28389.

Kastberg, G., & Österberg, E. E. (2017). Transforming social sector auditing–they audited more, but scrutinized less. *Financial Accountability & Management, 33*(3), 284-298.Available at: https://doi.org/10.1111/faam.12122.

Khaile, T. (2020). Limitation of the principal-agent theory to explain the problem of non-compliance in South African municipalities. *Journal of Public Administration and Development Alternatives, 5*(2), 114-130.Available at: https://doi.org/10.55190/bvkl7572.

Koma, S. B. (2016). Rationalisation of municipalities: A panacea for improved municipal governance in South Africa? *African Journal of Public Affairs, 9*(2), 127–139.

Kouiri, K. E., Agouram, J., & Kadouri, A. (2021). Ownership structure and performance of companies: Exploratory study via a systematic review of the literature. *International Journal of Social Sciences Perspectives, 8*(1), 17–24.Available at: https://doi.org/10.33094/7.2017.2021.81.17.24.

Machinjike, N., Bonga, W. J., & Hundi, S. (2021). Effectiveness of the office of the auditor general in enhancing public sector accountability. *Journal of Economics, 9*(1), 20-35.

Marjański, A., Sułkowski, Ł., Marjańska-Potakowska, J., & Staniszewska, K. (2019). Social capital drives SME growth: A study of family firms in Poland. *German Journal of Human Resource Management, 33*(3), 280-304.Available at: https://doi.org/10.1177/2397002219847668.

Masood, A., & Lodhi, R. N. (2015). Factors affecting the success of government audits: A case study of Pakistan. *Universal Journal of Management, 3*(2), 52-62.Available at: https://doi.org/10.13189/ujm.2015.030202.

Matamande, W. (2016). Investigating factors influencing the performance of the office of the auditor general in Zimbabwe. *University of Zimbabwe Business Review, 4*(2), 1-17.

Maydeu-Olivares, A., Coffman, D. L., Garc´ıa-Forero, C., & Gallardo- Pujol, D. (2010). Hypothesis testing for coefficient alpha: An SEM approach. *Behaviour Research Methods, 42*(2), 618–625.

Mubangizi, J. C. (2020). The role and effectiveness of national human rights institutions: Lessons from selected African countries. *Commonwealth Law Bulletin, 46*(3), 519-536.

Mupfumira, I. M., & Nyaruwata, L. T. (2021). Challenges in the teaching and learning of textiles in the primary school curriculum in Masvingo District Zimbabwe. *Asian Journal of Contemporary Education, 5*(1), 12–22.Available at: https://doi.org/10.18488/journal.137.2021.51.12.22.

Muzurura. (2020). *The economic costs of corruption in developing countries. A Zimbabwean perspective.* Harare, Zimbabwe: Mambo Press.

Nicol, M. (2020). Parliament: An unlikely champion of the Auditor-General. *New Agenda: South African Journal of Social and Economic Policy, 2020*(77), 22-27.

Novo-Corti, I., & Picatoste, X. (2019). Sustainable public finance and debt management. In Financing Sustainable Development. Palgrave Studies in Impact Finance; Ziolo, M., Sergi, B., Eds (pp. 227–247). Cham, Switzerland: Palgrave Macmillan.

Nyamita, M. O., Dorasamy, N., Garbharran, H. L., Nyamita, M., Dorasamy, N., & Garbharran, H. (2015). A review of public sector financial management reforms: An international perspective. *Public and Municipal Finance, 4*(2), 25-37.

Nzewi, O., & Musokeru, P. (2014). A critical review of the oversight role of the office of the auditor-general in financial accountability. *Africa's Public Service Delivery & Performance Review, 2*(1), 36-55.Available at: https://doi.org/10.4102/apsdpr.v2i1.42.

Ortiz, R. J. A., & Perez, J. A. C. (2016). Impact of supreme audit institutions on the phenomenon of corruption: An international empirical analysis. *Journal of Public Governance and Policy: Latin American Review, 1*(3), 34-59.

Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: Quantitative strategies for communicating indirect effects. *Psychological Methods, 16*(2), 93–115.

Raudla, R., Taro, K., Agu, C., & Douglas, J. W. (2016). The impact of performance audit on public sector organizations: The case of Estonia. *Public Organization Review, 16*(2), 217-233.Available at: https://doi.org/10.1007/s11115-015-0308-0.

Rodriguez-Vives, M. (2019). The quality of public finances: Where do we stand? *Economics and Business Letters, 8*(2), 97-105.Available at: https://doi.org/10.17811/ebl.8.2.2019.97-105.

Rosellini, A. J., & Brown, T. A. (2011). The NEO five-factor inventory: Latent structure and relationships with dimensions of anxiety and depressive disorders in a large clinical sample. *Assessment, 18*(1), 27–38.

Rudolph, K. D., Troop-Gordon, W., Hessel, E. T., & Schmidt, J. D. (2011). A latent growth curve analysis of early and increasing peer victimization as predictors of mental health across elementary school. *Journal of Clinical Child and Adolescent Psychology, 40*(1), 111–122.

Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods, 7*(2), 147–177.

Schelker, M., & Eichenberger, R. (2010). Auditors and fiscal policy: Empirical evidence on a little big institution. *Journal of Comparative Economics, 38*(4), 357-380.Available at: https://doi.org/10.1016/j.jce.2010.09.002.

Svärdsten, F. (2019). The 'front stage'of substance auditing: A study of how substance auditing is presented in performance audit reports. *Financial Accountability & Management, 35*(2), 199-211.Available at: https://doi.org/10.1111/faam.12190.

Torres, L., Yetano, A., & Pina, V. (2019). Are performance audits useful? A comparison of EU practices. *Administration & Society, 51*(3), 431-462.Available at: https://doi.org/10.1177/0095399716658500.

Wang, L., & Zhang, Z. (2011). Estimating and testing mediation effects with censored data. *Structural Equation Modelling, 18*(1), 18–34.

World Bank. (2020). *Role of supreme audit institutions in governments' response to COVID-19: Emergency and post emergency phases. Policy note.* Washington, DC: World Bank.

Zuccolotto, R., & Teixeira, M. C. (2014). Budgetary transparency and democracy: The effectiveness of control institutions. *International Business Research, 7*(6), 83–96.Available at: https://doi.org/10.5539/ibr.v7n6p83.