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Determinants of Corporate Social Responsibility Budgets in Public Sector Organizations: Evidence from Tanzanian Water Supply and Sanitation Authorities

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Abstract

This study examines the determinants of budget size for corporate social responsibility investment in the public sector, focusing on water supply and sanitation authorities in Tanzania. Using a retrospective longitudinal research design, quantitative data were collected from 114 water supply and sanitation authorities' annual reports, budget reports, and performance reviews over a five-year period (2015-2019). Data were analyzed using the fixed effect instrumental variables estimation technique. The findings indicate that budget size for CSR investment is significantly determined by factors such as revenue collection efficiency, organizational indebtedness, prior CSR spending, organization size, and age. This research contributes to the literature by including the historical trend of actual corporate social responsibility spending, addressing a previously overlooked factor. The study recommends that policymakers establish specific policies mandating a minimum budget allocation, such as a percentage of revenue collection, to ensure consistent and committed corporate social responsibility engagement by WSSAs.

Keywords: *Corporate Social Responsibility; Investment; Budget Size; Tanzania*

1. Introduction

Investment in Corporate Social Responsibility (CSR) has become an important aspect of business operations (Menezes, 2019; Singh and Misra, 2019; Mioara, 2016; Lauesen, 2016). The importance of CSR investment is attributed to the benefits it offers. Engaging in CSR activities is argued to foster customer loyalty (Raza et al., 2020), enhance organisational performance (Nuvaid and Chakravarty, 2017), and legitimise the operations and existence of organisations (Olateju *et al.*, 2021).

Corporate social responsibility investment is costly, organisations need to pay attention to how much to invest and what CSR activities to undertake (Chatterjee, 2015). Precisely, organisations have to budget for each financial year (Ponce *et al.*, 2018) for proper prioritisation of CSR activities and management of costs. However, budgeting for CSR poses a serious challenge for most organisations because there is no rule or framework for CSR budgeting that is applicable to all categories of organizations. Differences in vested interest in financing CSR activities among organisations (Chatterjee, 2015) also make budgeting even more challenging.

To smooth budgeting for CSR and enforce commitment to CSR involvement, some countries have set specific regulations that guide organisations on how much should at least be the budget amount for CSR investment in each financial year (Lin, 2020). In Indonesia, for example, state-owned entities are obliged to set aside a minimum of 2% of their net income for CSR activities (Andrini, 2016); in India, firms in both the private and public sectors are mandated by their Company Act, 2013 to invest 2% of their after-tax profit into social activities (Dharmapala and Khanna, 2018).

In Tanzania, guidelines on the amount of budget for CSR investment are available for organisations in the mining sector. The Mining Act, Cap. 123 of 2017, requires companies in the mining sector to allocate at least 0.07% of their gross revenue to CSR activities. Organisations in other sectors, for example, the water sector, have no specific guidelines on how much to allocate for CSR, although the National Water Policy (NAWAPO) 2002, mandates organisations in this sector to engage in CSR activities. Non-existence of budget guidelines raises an important question, what determines the budget size for CSR investment by water supply and sanitation authorities?

Several studies on CSR budgets exist; however, most of these studies do not directly focus on the determinants of CSR budget size, and they are often conducted in countries other than Tanzania. For instance, Ponce *et al.* (2018) analysed budget stability, financing, and CSR in Spanish municipalities. Yuliawati (2011) compared CSR budgeting and realisation in Indonesian power companies, while Alqadheeb and Althunayan (2015) examined the budgeting of CSR activities by Saudi Arabian telecommunication companies. Kholis et al. (2021) investigated the model of state-owned enterprises' CSR budget management. Few studies have directly focused on the determinants of CSR budgets. Examples include Johan (2021), who determined the size of CSR funds among banks in Indonesia, Malaysia, and Thailand, and Baatwah *et al.* (2022), who assessed the effect of the COVID-19 pandemic on CSR budgeting and spending in Oman. These studies primarily focused on profit-making firms from various sectors but and suffered from model misspecification, potentially leading to biased results. Notably, they have not considered the impact of historical actual spending on CSR activities on the budget size for CSR investment in the subsequent year.

This paper aims to provide new empirical evidence on the factors that determine the budget size for CSR investment by organisations in the public sector. These organisations do not have a budget framework for determining the budget size required for CSR activities. To the best of the researchers' knowledge, this is the first study that empirically examines the factors determining the budget size for CSR activities by public organisations, specifically WSSAs in Tanzania. By focusing on organisations belonging to the same sector and one country, this study solves the potential problem of heterogeneity that most studies might have suffered from. In addition, this study has used instrumental variables to control the endogeneity effect of actual spending on CSR activities in the year proceeding the year of budget, which has hardly been done in previous studies on CSR budgets.

The remaining parts of this paper proceed as follows. The next section briefly discusses the literature relevant for CSR. The details of hypothesises are presented in section 3. Section 4 describes the methodology and data. Section 5 discusses the results, and lastly section 6 presents the conclusion and recommendations.

2. Empirical Literature Review and Hypothesis Formulation

The availability of financial resources is fundamentally important in any firm's investment decision (Benlemlih and Bitar, 2018). The resource dependency theory also explains how important the availability of financial resources is to firms when making investment decisions. In view of this theory, a firm is able to perform its activities because of the resources available to it, which are assigned to the predefined activities (Bourgeois, 1981). Thus, a firm's decision to allocate resources for both economic and social activities may largely depend on the extent to which such financial resources are available (Islam *et al.,* 2021). Internally generated funds are important financial sources for the investment decisions of firms. Water Supply and Sanitation Authorities may improve financial resources through the sale of clean water and providing sanitary services to customers. When the financial resources of an authority improve, it will be able to finance corporate social responsibility activities and other operating activities. Efficiency in revenue collection from customers who have been billed for the clean water and other sanitary services they have been offered increases cash flow (Namaliya, 2017), making the authority financially healthy for corporate social responsibility activities. Studies, e.g., Islam *et al.* (2021), Onuoha and Nkwor (2021), have also confirmed the notion that firms with adequate financial resources invest more in CSR activities. From this point of view, it is hypothesised that,

Hypothesis 1: Revenue collection efficiency has positive influence on budget size for CSR investment

Financially constrained firms may have less priority to CSR investment due to their dependence on external resources as they struggle to generate sufficient funds internally (Moussu and Ohana, 2016). Instead, they turn to borrowing, which creates financial obligations with interest. Highly indebted firms face the challenge of repaying both principal and interest, potentially leading to reduced allocation of resources to CSR activities, which offer less immediate returns. These funds may be diverted to economic activities that generate higher revenue to service the debt. The level of dependency on external financing and the ability to meet these obligations are often reflected in a firm's financial leverage. While studies like Moussu and Ohana (2016) found a negative relationship between leverage and CSR, others like Harjoto (2017) and Jouini and Ajina (2018) observed the opposite. In line with the resource dependency theory, we expect that firms with higher leverage will allocate fewer financial resources to CSR investments. This leads to the hypothesis that,

Hypothesis 2: Organization financial leverage has negative influence on budget size for CSR investment

The overall organisational budget ceiling is an important factor to consider when determining the budget size of a particular activity. Public organisations prepare budgets in response to a given budget ceiling (Khan and Hildreth, 2002), which does not state the amount of funds to be allocated for a specific type of activity. It sets the limit of the amount an organisation has to spend in the following financial year (Gaspar *et al.* 2020) on all activities. Budget ceilings indirectly compel organisations to set priorities for their activities to be financed. Organisations with a smaller overall budget ceiling tend to reduce fund allocation to activities that are of less priority, and in some cases, they may exclude some of their activities to align with their budget ceiling (Gaspar *et al.,* 2020). On the other hand, organisations with a larger budget ceiling have the opportunity to allocate funds over a wide range of activities, including CSR. Based on this view, it is hypothesised that;

Hypothesis 3: The organization budget ceiling positively influences CSR budget size for CSR investment

In public sector organisations, budgets for the subsequent financial year are usually prepared beforehand (Ponce et al. 2018). Thus, it is prepared before the beginning of the financial year. Various factors, including historical trends in actual spending on each activity, may be considered when the annual budget is prepared. Previous spending may be considered during the determination of budget size for a specific activity because it helps to set the foundation for funding in the next financial year for the

same activity. Thus, information on previous CSR spending serves as a guide towards the allocation of financial resources to CSR activities in the following year. Larger spending on a particular activity in the year proceeding the year of budget will entail an organisation increasing the allocation of funds for that activity in the subsequent financial year. In view of this, the actual spending on CSR activities for the year prior to the year of budget may be an important factor that may influence the size of the budget for CSR investment. On the basis of this argument, it is hypothesised that

Hypothesis 4: The CSR spending for the year preceding year of budget has positive influences on the budget size for CSR investment.

The interests of stakeholders are worth consideration when determining the budget size required for financing CSR activities. Stakeholder theory considers stakeholders as an important group of individuals who can affect or be affected by an organisation's operations (Freeman, 2020; Jamali, 2008). The theory stresses that organisations have a responsibility to satisfy the interests of multiple stakeholders (Jamali, 2008). By considering stakeholder interests, organisations establish positive relationships with society and create values for all stakeholders (Chauhan, 2014). The scope of stakeholder considerations may differ among organisations depending on factors such as organisation size and the social needs of the surrounding community (Brown and Forster, 2013; Zelditch, 2020). Organisation size indicates the extent to which an organisation is visible to the community and the extent of impact it has on its stakeholders (Brammer and Millington, 2006). In view of stakeholder theory, large organisations are expected to have a larger number of stakeholders because they are highly visible to a large number of communities (Chauhan, 2014). Due to their visibility, large organisations may have several demands from various stakeholders for consideration in supporting their social needs through CSR activities. Accordingly, these organisations may be required to allocate a substantial amount of funds in their annual budget for CSR activities (Karyawati *et al.*, 2019). It is from this argument we hypothesise that;

Hypothesis 5: Organization size has positive influence on budget size for CSR investment.

Firms need to undertake CSR regardless of the duration of their existence in order to sustain their legitimacy. The legitimacy theory also highlights the importance of involving all organisations in CSR in order to continue maintaining the relationship existing between the organisations and the community around the area in which the organisations operate their activities (Deegan *et al.*, 2002). The society expects organisations to operate within the existing social norms and conduct in order to continue being legitimate (Aguinis and Glavas, 2012). Investment in CSR activities is one of the strategic tools organisations use in order to legitimise their operations and secure their legitimate existence within society (Stratling, 2007). Securing and sustaining legitimacy is important for both younger and older organizations. Older organisations have long-standing CSR implementation, so the allocation of funds for CSR activities would be based on the practices adopted by the firms. New firms also need to get legitimacy from the community for their operations and support. In order to gain legitimacy and sustain themselves, these firms will also be required to implement CSR. Consequently, both older and younger firms will need to allocate funds for CSR in order to secure and continue sustaining their existence, recognition, reputation (Olateju *et al.*, 2021), and support from the community. Based on this view, it is hypothesised that:

Hypothesis 6: Organization age has positive influence on budget size for CSR investment

In most organisations, particularly those in the public sector, a budget committee is formed to prepare the budget. A budget committee is a group of individuals within an organisation who are responsible for reviewing and approving departmental budgets. Thus, budget committee members are important personnel who are directly involved with the budget approval of organisation activities, including CSR activities (Bagdigen, 2001). The literature suggests that the gender composition of the organisation's budget committee may influence the amount to be set aside for CSR activities. The budget

committee of socially responsible organisations consists of more women because women have different inherent communal traits and decision-making processes, which make them more concerned with stakeholder priorities in their decision-making. Women promote more social responsibility activities in their organisations compared to men (Kato and Kodama, 2018; Yasser, Al Mamun, and Ahmed, 2017). We therefore extend the reasoning of gender composition in the budget committee members by hypothesising that:

Hypothesis 7: Female member in the budget committee has positive influence on the budget size of CSR investment

According to Boukattaya (2021), gender is one of the characteristics that may influence decision-making among leaders. In fact, Maak *et al.* (2016) assert that organisations are viewed as a reflection of their top leaders' decisions. Thus, gender differences drive different decisions on the budget amount for CSR activities by organizations. Based on social role theory, Ardito *et al.* (2021) argue that females are more socially oriented and concerned about the needs of other stakeholders than males. Also, females and males have different career trajectories, where males are more experienced in large organisations with more focus on the economic aspect than the social aspect of the organisation, while females are more into the community and service aspects of the organisation (Prudêncio *et al.*, 2021). As such, organisations with female managing directors are more likely to invest more in CSR activities (Bernardi and Threadgill, 2011; Prudêncio *et al.*, 2021). Again, Konrad *et al.* (2008) pointed out that female directors are more likely to be concerned about the issues of organisation reputation and health and safety issues that may affect the community. Previous studies, e.g., Calabrese *et al.* (2018), Cullinan *et al*. (2019), and Cruz *et al.* (2019), found a positive relationship between the gender of the managing director and CSR investment. On the other hand, Lu *et al.* (2020) found a negative relationship between female top managers and CSR investment. In view of these narrations, it is hypothesised that:

Hypothesis 8: The female Managing Director has positive influence on budget size for CSR investment.

3. Research Method

This section presents the research methodology of this study. It comprises of research design and data, variable measurements and estimation technique applied.

3.1 Research Design and Data

We applied a retrospective research design where quantitative data were collected from 114 WSSAs for a period of five years from 2015 to 2019. The data were collected from annual financial reports, budget reports, and EWURA's water utilities performance review reports. From annual reports, the data collected were; leverage, amount spent on CSR activities, organisation ages, and the gender of managing directors. From the budget reports, we collected information on the size of the budget ceiling, the proportion of females in the budget committee, and the budget amount for CSR activities. Lastly, from the EWURA's water utilities performance review report, we collected information on revenue collection efficiency and the number of water connections for each WSSA.

3.2 Variables and Their Measurements

The budget size for CSR investment (CSRB) is the dependent variable measured by the natural log of the total amount of the annual budget for CSR investment. The natural log is used to measure the variables in order to normalise larger absolute numbers and control for outliers in the data set (Hair *et al.*, 2015). Next to the measure of the dependent variable, we measured the independent variables. The first independent variable measured is the Revenue Collection Efficiency (RCE). The total revenue collected

over the total amount of bills in a given financial year measures this variable. This measure was also used by Namaliya (2017). Financial leverage (lev) is another independent variable in the model. The overall budget ceiling (Sizebc) is measured by the natural log of the total budget ceiling of each firm in a given financial year. The actual annual spending on CSR activities for the year proceeding the year of the budget (PCSRSP) was measured by the natural log of total CSR spending in the year proceeding the year of the budget.

Further, the size of the organisation (Ogsize) was measured by the natural log of the number of water connections. This is the standard measure of firm size in the water sector in Tanzania (EWURA, 2022) and other Eastern and Southern Africa Water and Sanitation (ESAWAS, 2015). Organisation age was measured by the natural log of the number of years the organisation has been in existence. Several studies, e.g., Badulescu *et al.* (2018) and Çera *et al.* (2020), have also used this measure. Other important independent variables reflecting the role of women in influencing CSR budget size are the composition of females in the budget committee (Femalebc). The proportion of females in the budget committee measures the variable. Lastly, we consider the influence of the gender of the managing director (FemaleMD) on CSR budget size. This variable was measured by a dummy variable, whereby 1 was assigned if the managing director is female and 0 otherwise.

3.3 Model Specification

The empirical model for examining the determinants of budget size for CSR investment is specified in the general terms as follows;

$$Y_{it} = \alpha_{it} + \beta X_{it} + \mu_{it} + \varepsilon_{it} \qquad (1)$$

Where; Y present the dependent variable, α the intercept for each entity, β represents coefficients for the independent variables; x represents independent variables, μ represent the within-entity error term, and ε is the overall error term, i represent the cross-sectional units and t denote the period. Therefore, using the variables described section 3.2 the full empirical model is specified as follows:

$$lnCSRB_{it} = \beta_1 RCE_{it} + \beta_2 lev_{it} + \beta_3 Sizebc_{it} + \beta_4 lnPCSRSP_{it} + \beta_5 lnogsize_{it} + \beta_6 lnogage_{it} + \beta_7 Femalebc_{it} + \beta_8 FemaleMD_{it} + \mu_{it} + \varepsilon_{it} \qquad (2)$$

4. Findings and Discussion

This section provides a comprehensive analysis by presenting descriptive and diagnostic tests, followed by regression findings. These diagnostic tests are essential to ensuring the robustness of the regression analysis.

4.1 Descriptive Results

The descriptive statistics in Table 1 show that the average budget size for CSR investment by WSSAs was TZS 97.90 million per annum. This budget size is equivalent to 4.9% of the average overall approved budget celling (i.e., TZS 1,980 million) of a water authority. Given that most WSSAs in Tanzania are medium-sized with 6,063 water connections, the budget of 4.9% of the overall budget ceiling is substantial, signifying growing recognition of the importance of CSR investment and the commitment of most WSSAs to support CSR activities. While the average budget size for CSR investment was TZS 97.90 million, the average actual CSR spending for the year prior to the year of budget by most WSSAs was TZS 97.81 million per annum. The actual spending per year is slightly below the budget size, indicating a problem with budget management associated with a lack of planned CSR activities to be financed. In most cases, WSSAs in Tanzania do not have planned CSR activities,

financing is done as activity emerges or a request arises for financial support from stakeholders for certain CSR activities, making budget management for CSR investment difficult.

The descriptive analysis of RCE shows that, on average, revenue collection efficiency is 86 percent among WSSAs. This means that, on average, WSSAs are able to collect 86 percent of the earned total revenue. The data also indicate a range from a minimum of 49 percent to a maximum of 113 percent, with a standard deviation of 0.16, suggesting some variability among WSSAs in their revenue collection efficiency. Good revenue collection efficiency enhances cash flows and the financial ability of the Authorities. Improved financial ability enables authorities to finance a wider range of activities, including CSR. Although most water authorities have higher revenue collection efficiency, which boosts their cash flows and financial capabilities, some of the authorities have debts, as depicted by the leverage ratio. However, their debts are not alarming, as the leverage ratio is less than 1, implying that their available assets are adequate to finance such liabilities.

Furthermore, the descriptive statistics in Table 1 depict that most water authorities in Tanzania are young, having an average of 16 years of existence. CSR investment for those authorities is essential to continue building relationships with stakeholders and gaining reputation and legitimacy. The results also show that there are few females in both the budget committee and the top leadership positions in the water sector. Only 26% of budget committee members were female, and 18.07% of managing directors in WSSAs were female. Given the small number of female in those positions, their influence on the size of the budget for CSR investment may be very minimal, despite their assumed social roles.

Table 1: Descriptive Statistics

Variable	**N**	**Mean**	**Std. Dev.**	**……Quantiles……**					**Skewness**	**Kurtosis**
				Min	**25th**	**50th**	**75th**	**Max**		
CSRB	570	97.90	31.70	60.70	71.10	90.40	107	139	0.81	2.61
RCE	570	0.86	0.16	0.49	0.76	0.89	0.99	1.13	0.16	2.46
Lev	570	0.84	0.50	0.01	0.51	0.79	1.192	1.92	0.26	2.29
Sizebc	570	1,980	3,850	54.6	183	378	1,150	15,000	0.64	2.63
PCSRSP	570	97.81	31.40	63	73	89	110	137	0.92	2.75
Ogsize	570	6,063	7,209	209	731	1,660	3,632	158,900	0.55	2.63
Ogage	570	16	3.28	11	13	15	18	22	0.41	2.1
Femalebc	570	0.26	0.05	0.2	0.2	0.3	0.3	0.4	0.08	2.15

FemaleMD	Frequency	Per cent	Cum.
0	467	81.93	81.93
1	103	18.07	100.00
Total	570	100.00	

Source: Authors (2023): The variables CSRB, Sizebc and PCSRSP are in millions of TZS

4.2 Diagnostic Tests

Before the analysis, assumptions for the panel model were tested to ensure that the estimation technique applied was appropriate. The test for the presence of a panel effect was performed using the Lagrangian Multiplier (LM) test. The LM results of a p-value equal to 0.000 indicate the limitation of the pooled OLS model in addressing omitted variable bias and endogeneity problems (Baltagi, 2021). Therefore, equation 2 in Section 3.3 could be estimated by either Fixed Effect (FE) model or Random Effect (RE) model. In order to select between a fixed effect and a random effect model, we performed a

Hausman test with the null hypothesis that RE estimation is an appropriate technique. The result of the Hausman test indicates a p-value of 0.000, which is less than 0.05. Therefore, we reject the null hypothesis, meaning that RE was not an appropriate estimator for factors determining budget size for CSR investment. Therefore, the fixed effect was an appropriate estimation technique.

The FE estimation techniques could be extended in cases where the independent variable was endogenous (Baltagi, 2021). The Durbin-Wu-Hausman test was employed to determine whether the variable was endogenous, i.e., whether the independent variable correlates with the error term or any of the omitted causes in the model. It was found that the variable PCSRSP was an endogenous variable, the Durbin and Wu-Hausman test indicated a p-value of 0.0000. The presence of endogenous variables in the model could cause spurious estimated results (Chamberlain, 2021). Therefore, to overcome this, we introduced the lag value of PCSRS as an instrumental variable. Ullah *et al.* (2021) argue that identifying valid and purely exogenous instruments in the study is practically difficult. The use of the lagged value of the identified endogenous variable as an instrument is preferred in most cases. The Sargan-Basmann test with a p-value of 2.260 confirms that LagCSRSP is a valid and not weak instrumental variable. Based on the diagnostic test performed, the fixed effect instrumental variable was the appropriate technique to estimate the determinants of budget size for CSR investment by WSSAs

Further, we applied Durbin's alternative test for serial correlation with the null hypothesis of no-serial correlation. The finding showed a p-value of 0.29, which is greater than 0.05, implying that there was no serial correlation. The test for heteroscedasticity was performed by using the Breusch-Pagan/Cook-Weisberg test for heteroscedasticity. The results of the Breusch-Pagan/Cook-Weisberg test show a p-value of 0.11, which is greater than 0.05. We fail to reject the null hypothesis that there is constant variance. Hence, the assumption of homoscedasticity was not violated (Campello *et al.,* 2019). Table 2 shows the correlation matrix where the coefficient values are below 0.7, confirming the absence of multicollinearity (Creswell, 2012). The skewness and kurtosis values in Table I show that the skewness for all variables was less than +/-2 and the kurtosis was less than +/-3, indicating that all variables were normally distributed (Wursten, 2018).

Table 2: Correlations Matrix

Variable	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
CSRB [1]	1.00								
RCE [2]	0.07	1.00							
Lev [3]	-0.01	-0.03	1.00						
Sizebc [4]	0.13	0.17	0.05	1.00					
PCSRSP [5]	0.08	0.11	-0.01	0.57	1.00				
Ogsize [6]	0.16	0.11	0.24	0.68	0.55	1.00			
Ogage [7]	0.07	0.06	0.13	0.46	0.40	0.56	1.00		
Femalebc [8]	0.02	0.03	-0.01	0.05	0.05	0.03	0.01	1.00	
FemaleMD [9]	0.03	0.01	-0.12	0.11	0.17	0.04	0.01	0.11	1.00

Source: Researcher (2023)

4.3 Empirical Findings

A fixed-effect instrumental variable estimation technique was applied to estimate the determinants of budget size for CSR investment. The general to specific approach has been applied towards presenting the outcomes (Brooks, 2002). First, we presented estimation results of all eight independent variables (i.e. full specification of model). Next, we deleted variables with insignificant coefficients in subsequent rounds in order to test the stability of the outcomes with respect to significant variables for different specifications of the model. The results presented in Table 3 reveal that five factors; RCE, lev, PCSRSP, ogsize, and ogage significantly determine the budget size for CSR investment by WSSA in the absence of a pre-set guideline for CSR budgeting.

The finding shows that revenue collection efficiency (RCE) has a significant positive influence on CSR budget size. Higher revenue collection efficiency (i.e., 86%) as indicated in Table I ensures the Authority steady cash flow and the ability to finance operating activities, including CSR activities. Authorities with higher revenue collection efficiency allocate a significant amount of money to be spent on financing CSR activities because they have adequate financial resources. The result on the relationship between RCE and budget size for CSR investment is in line with resource dependency theory, which asserts that the availability of financial resources is fundamentally important in any firm's investment decisions (Benlemlih and Bitar, 2018). It is also consistent with other studies (Islam *et al.*, 2021; Onuoha and Nkwor, 2021) that suggest that firms with more financial resources invest more in CSR activities.

Leverage is another factor that has an influence on the budget size for CSR investment. Leverage denotes the extent of liabilities arising from borrowing relative to organisational assets. The findings in Table 3 show that leverage is significant and negatively related to budget size, implying that authorities with large debts are inclined to reduce the allocation of funds for CSR activities. The finding also suggests that WSSAs with higher levels of debt have limited financial resources, which prompts them to reduce financing of CSR activities in favour of economic activities. Economic activities generate revenues, which are ultimately used to finance multiple activities, including paying debts. The finding is consistent with the resource dependence theory, which asserts that firms that are constrained with critical financial resources depend on other firms. Consequently, those firms would be unable to effectively finance some of their activities.

Further, the study finds that historical actual spending on CSR (i.e., actual spending on CSR in the year proceeding the year of budget) is an important factor for the determination of the budget size for CSR investment. The finding in Table 3 shows that actual spending on CSR for the year prior to the year of the CSR budget (SPCSR) is positively and significantly relate to the budget size, implying that the budget amount for CSR activities in each year depends on the actual spending on CSR activities in the preceding year. Since there is no guideline for determining the budget size for CSR activities in WSSAs in Tanzania, previous-year actual spending acts as a predictor for the budget amount for CSR for the subsequent financial year. This finding is consistent with a previous study (i.e., Rabea *et al.* 2020), which found a positive relationship between CSR budget and CSR spending.

Also, we found that organisation size plays a role in determining the budget size for CSR investment. The variable Ogsize is positive and significantly related to CSR budget size. This result suggests that organisations allocate large amounts of funds for CSR activities in order to meet the demands of several stakeholders. The finding is consistent with the stakeholder theory, which asserts that organisations have a responsibility to satisfy the interests of multiple stakeholders (Freeman, 2018; Jamali, 2008). It is also in line with the argument in the literature (Karyawati *et al.*, 2019; Brammer and Millington, 2006) that large organisations are visible to many stakeholders, and due to their visibility, they have many stakeholders who may demand financial support to undertake corporate social responsibility activities.

Lastly, from Table 3, we find that organisation age positively and significantly relates to the size of the budget for CSR investment. This finding suggests that older WSSAs allocate larger budgets to CSR activities compared to younger WSSAs. It also indicates that older organisations have more resources, experience, and capacity to invest in CSR. This finding aligns well with stakeholder theory, which posits that organisations should consider the interests of all stakeholders in their operations (Freeman *et al.*, 2018). Older organisations may have built stakeholder relationships over time, increased their commitment to CSR, allocated larger budgets to fulfil stakeholder expectations, and enhanced long-term survival in their operations.

Table 3: Fixed Effect Instrumental Variable Regression: CSRB Dependent Variable

Variable	**(1)**	**(2)**	**(3)**	**(4)**
RCE	0.078	0.083	0.087	0.087
	(0.037)**	(0.035)**	(0.027)**	(0.026)**
Lev	-0.069	-0.068	-0.068	-0.069
	(0.021) **	(0.024)**	(0.025)**	(0.022)**
Sizebc	2.313			
	(0.200)			
PCSRSP	0.700	0.731	0.735	0.741
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Ogsize	2.935	2.878	2.868	2.930
	(0.021)**	(0.024)**	(0.024)**	(0.022)**
Ogage	0.506	0.501	0.500	0.484
	(0.002)***	(0.002)***	(0.002)***	(0.003)***
Femalebc	1.221	1.232	1.227	
	(0.116)	(0.116)	(0.116)	
FemaleMD	0.061	0.060		
	(0.171)	(0.190)		
Constant	13.41	19.934	19.877	20.191
	(0.022)***	(0.000)***	(0.000)***	(0.000)***
Observation	570	570	570	*570*
Number of units	114	114	114	*114*
Number of years	5	5	5	*5*
Adj. R-Squire	0.52	0.56	0.58	*0.58*
Breusch-Pagan LM-test	46.09***	46.09***	46.09***	46.09***
Durbin's alternative test	*0.29*	*0.29*	*0.29*	*0.29*
Hausman test	*60.86****	*60.86****	*60.86****	*60.86****
Durbin-Wu-Hausman test	*14.367****	*14.367****	*14.367****	*14.367****
Sargan-Basmann(Prob.)	2.30	2.26	2.26	*2.26*
Breusch-Pagan / Cook-Weisberg test	*0.107*	*0.107*	*0.107*	*0.107*

Source: Researchers' survey data (2022). Robust standard errors are reported in parentheses. *p<0.10, **p<0.05 and ***p<0.01.

5. Conclusions

This paper examines the factors that determine the budget size for CSR investment by organisations in public sector settings, particularly WSSAs. Determining the appropriate size of the CSR budget is a challenge for WSSAs in Tanzania, as there are no specific guidelines available. Consequently, the determination of the budget size for CSR investment is based on subjective factors. The four important factors that WSSAs base on deciding the amount of budget for CSR activities include the

efficiency of revenue collection from customers who have been billed for clean water and sanitation services, the extent to which the authority is indebted, historical actual spending on CSR activities, and the size of the respective WSSA.

Because there is no specific guideline on how much should be budgeted for CSR investment, some WSSAs are less committed to investing in CSR, leading to significant variations in budget amounts among the water authorities. These findings provide valuable insight relevant to policymakers. Thus, policymakers should enforce investment in CSR by establishing the minimum mandatory amount that each organisation should at least allocate for CSR investment. It should be noted that by establishing a guideline for determining the budget amount for CSR, each organisation will be committed to observing such regulatory requirements. We recommend policymakers set a specific percentage of annual earnings as the standard for deciding the budget amount for CSR rather than basing it on subjective indicators (i.e., RCE, leverage, PCSRSP, Ogsize, and Ogage).

It should be noted that while this paper provides a significant contribution to the existing body of knowledge on budgeting for CSR investment, there are a number of limitations that should be considered when interpreting the results. First, the study is based on firms coming from one sector. As such, we don't know whether the findings can be applicable to organisations from other sectors, which also do not have guidelines for determining the budget size for CSR activities. It is suggested that future research should expand the scope by including organisations from other industries within the public sector. Conducting similar studies in different contexts would provide a comprehensive understanding of the factors influencing CSR budgeting, enable comparisons across sectors, and ultimately enhance the effectiveness of CSR investments in the public sector.

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