**Social Networks-Budgetary Discipline Linkages in Sub-National Entities**

**Abstract**: This research intervenes the seemingly-endless empirical debate that seeks explanation to the notorious budgetary discipline problem in local government. Some scholars attribute it to social networks, but others emphasize entity internal control systems. Supported by budgetary theory- structural equation modeling (SEM) triangulation, we examined data from 33 districts, 7 municipalities and 345 sub-counties in Uganda (East Africa)’s north-western and eastern regions. The SEM results revealed that socio-economic structures and partisan-politics; key social networks constructs, predict budgetary discipline. Ethnicity; it is other attribute, does not. Additionally, internal control system mediates the social networks-budgetary discipline relationship as originally anticipated. Implications for theory and practice are discussed.

**Keywords**: Local Government; Budgetary Discipline; Internal Control Systems; Social Networks.

**Introduction**

Contemporary fiscal federalism policy in numerous economies of both the developed and developing world claims that achieving budgetary discipline in sub-national entities is quite feasible (Özer & Yilmaz, 2011; Mergel, Rethemeyer & Kimberley, 2016). Contrarily, the collective theory-research-practice view suggests that sub-national entity budgetary discipline is largely illusionary and cannot be attained easily. This is largely evident in resource-constrained, ethnically-driven, and partisan politics-focused local governments in various countries of the developing world (Egbide & Agbude, 2014; Willoughby, 2014; Davis, Dempster & Wildavsky, 1966).

The foregoing seemingly endless empirical debate renders what persuasively explains budgetary discipline in sub-national entities a non-directional issue. Accordingly, some scholars (e.g. Lavertu, 2016; Porumbescu, 2016; Skoric, Zhu & Goh, 2016) assert that budgetary discipline can easily be propelled by changes in entity social networks. Other researchers; notably, (Giosi, Testarmata, Brunelli & Staglianò 2014; Pettersson-Lidbom, 2010; Stedry, 1960) ague that; consistent with the budgetary theory and fiscal federalism policy, social networks can only promote budgetary discipline if supported by an efficient internal control system.

In intervention, this research examined social networks-internal control systems-budgetary discipline connectivity in sub-national entities of Sub-Saharan Africa. Specifically, the investigation was centered on operations of 33 districts, 7 municipalities and 345 sub-counties scattered in north-western and eastern regions of Uganda, an East African country. In recent decades, the country has received surmountable acclaim for its fiscal federalism approach and thus has been a research focal point (Egbide & Agbude, 2014; Ministry of Local Government, 2019).

**Contribution to the Knowledge Body**

The study makes a number of contributions to literature. First, drawing on the fiscal federalism perspective, its findings contribute to the local government budgetary literature by examining whether budgetary discipline can be achieved from a social network context. Given that prior Sub-Saharan Africa localities-focused research (e.g. Egbide & Agbude, 2014; Nicolae, 2013), often overlooked budgetary discipline-social network linkages, this undertaking is considered empirically novel and innovative.

Second, the study goes deeper by also exploring the apparent mediating influence of internal control systems on the region’s local entity budgetary discipline-social network triangulation. Consistent with existant literature (Maultasch & Welch, 2013; Porumbescu, 2016), Sub-Saharan African based fiscal federalism has for long been driven by generally weak internal control systems considerations.

Third, the research moreover employs the budgetary theory underpinnings to explore the possible social network-internal control systems-budgetary discipline relationships in local government. This theory was formulated and has been largely employed in the western world (Davis et al., 1966; Rubin, 1990; Stedry, 1960). Its application in African localities research thus amounts to yet another great empirical contribution to the literature.

**Theory, Literature, and Hypothesis Development**

**Local Government Budgetary Discipline**

Budgetary discipline in sub-national and specifically local government entities constitutes a legal instrument (Willoughby, 2014). Fundamentally, it is meant to be complied with in order to enhance locality fiscal planning, implementation, and accountability (Nicolae, 2013). As noted recently by Mergel et al. (2016), in practice; however, budgetary discipline structure is often compromised and violated by individual persons and groups through rent-seeking practices. Consequently, related regulations are frequently violated to exploit public funds for personal and group interests (Mergel et al., 2016; Willoughby, 2014).

Both budgetary theory and literature have traditionally associated local entity budgetary discipline with three basic constructs: common pool set-up, fiscal bail-outs, and grants policy (Davis et al., 1966; Stedry, 1960; Egbide & Agbude, 2014; Nicolae, 2013; Özer & Yilmaz, 2011; Willoughby, 2014).

Budgetary theory which underscores fiscal incrementalism as a prerequisite for societal demand dynamics, posits that local entity efficiency can only be attained through budgetary discipline (Davis et al., 1966; Stedry, 1960). Later on supported by input from Rubin (1990), this theory seems practical and realistic in scarce-resource and yet economically-demanding domains of the developing world.

This explains why recent empirical works (e.g. Nicolae, 2013; Willoughby, 2014), underscore common pool set-up, fiscal bail-outs, and grants policy as pivotal factors for realizing the entity budgetary discipline dream.

**Common-Pool Set-Up**

Budgetary discipline in majority sub-national governments both in the developed and developing world is largely a function of their common-pool structure. In line with the budgetary theory (Stedry, 1960; Davis et al., 1966; Rubin, 1990) position, and exemplified by recent research (Nicolae, 2013; Willoughby, 2014), the ﬁnancing of speciﬁc community expenditure is often shared among different entity interest groups. This implies that each interest group holds a motive of free-riding on the groups’ contributions. Accordingly, overspending bias; a signal of budgetary indiscipline, arises which is often very complicated to manage (Nicolae, 2013; Stedry, 1960).

To date, theory, research, and practice are not conclusive on what can fully address the common-pool challenge in local government. However, some scholars (e.g. Özer & Yilmaz, 2011) suggest that entities should always emphasize budgetary institutions compliance and proper management of social networks. The institutions are basically the formal and informal rules governing budgetary decisions of the executive and legislative branches of government (Özer & Yilmaz, 2011; Willoughby, 2014).

Some research, notably, Egbide and Agbude (2014), posit that political fragmentation and decision-making weaknesses; typical of Sub-Saharan African localities, should be maturely addressed. The two are clear models of social network machination (Egbide & Agbude, 2014).

**Fiscal Bail-Out**

Several local governments especially in the developing world have a tendency to over-spend and accumulate debt either deliberately or in ignorance of ultimate consequences. This fiscal misconduct; typical of budgetary indiscipline, often affects future provision of sensitive public services such as health, education, water and sanitation, and road maintenance (Besfamille & Lockwood, 2008).

In order to sustain expected service delivery to the innocent citizens, central government is compelled to step-in and rescue the situation; the action technically referred to as fiscal bail-out (Besfamille & Lockwood, 2008; Özer & Yilmaz, 2011). In compliance with the budget theory (Stedry, 1960; Rubin, 1990) view that bail-outs weaken entity budgetary discipline tremendously, recent studies (e.g. Giosi et al., 2014; Cao, Guo, Liu & Gu, 2015; Lavertu, 2016; Porumbescu, 2016) advice that central authorities should avoid the bail-out practice.

In Sub-Saharan Africa, a number of countries; notably, Uganda, Ethiopia, Ghana, Kenya, Nigeria and South Africa, run fiscal regulations that slab local governments from accessing loans. Thus, no entity is mandated to borrow from either local or international financial institutions. This action has significantly helped mitigate the entity debt problem and minimized bail-outs (Egbide & Agbude, 2014; Mergel et al., 2016). In Uganda, for instance, central authorities have also espoused strict measures to counter entity over-spending tendencies despite regardless inter-entity revenue generation variances (Egbide & Agbude, 2014).

**Grants Policy**

The manner grants or intergovernmental fiscal transfers (IGFTs) policy is constituted and later implemented, has serious implications not only for local entity fiscal sustainability but for their budgetary discipline (Skoric, Zhu & Goh, 2016). Essentially, the main purpose of IGFTs is to help fund sub-national public infrastructure and service delivery as a contribution from central government. The grants are also meant to enhance local revenues capacity. This implies that for effective implementation, the IGFTs governing policy must be systematically designed.

Consistent with budgetary theory (Davis et al., 1966; Rubin, 1990) and empirical evidence (Besfamille & Lockwood, 2008; Skoric et al., 2016), IGFTs policy enhances local entity budgetary discipline when the fiscal pool is adequate, the pool is transparently distributed, and the operational conditionalities surrounding it are realistic.

As Besfamille and Lockwood (2008) noted, such a IGFTs policy structure will not only promote pool utility flexibility and simplify related socio-economic adjustments, but most essentially will significantly curtail rent-seeking inclinations. Like majority fiscal federalism states in Sub-Saharan Africa, Uganda’s grants policy faces surmountable challenges in attaining the foregoing operational standards. Consequently, most of its local governments undergo persistent budgetary discipline set-backs (Egbide & Agbude, 2014).

**Social Networks**

Sub-national arrangements particularly local governments encompass a number of stakeholders who frequently interact to achieve fiscal federalism objectives and essentially deliver required public services (Lavertu, 2016; Porumbescu, 2016). Key parties include: entity administrators, finance officers, planning and procurement officers, community representatives, the local community, and central government. In the developing world, the donor community is another critical partner.

Both budgetary theory and fiscal federalism policy consider these inter-stakeholder linkages social networks (Lavertu, 2016; Maultasch & Welch, 2013; Porumbescu, 2016). Given that the stakeholders conceive, approve, implement and manage entity budgets, social network analysis research (e.g. Mergel et al., 2016; Warren, Ainin & Jaafar, 2014) contends that anticipated budgetary discipline must be a direct function of social networking. Accordingly, social network analysis or SNA, constitutes a social science methodology that explains social phenomena. The SNA technique employs structural and party relational identities to indicate how information is exchanged amongst themselves. In the local government fiscal context, recent SNA empirical evidence identifies social networks with three constructs; namely, socio-economic structure, partisan politics, and ethnicity (Warren et al., 2014; Skoric et al., 2016).

**Socio-economic Structure**

Globally, there is no federal system which holds sub-national entities with equal and similar resource-endowment. Thus, each entity has its own peculiar capacity to generate local revenue dictated by its unique socio-economic framework. Divergences in fiscal capabilities; horizontal fiscal imbalances, significantly affect individual budgetary priorities (Lavertu, 2016).

In developing countries; notably those of Sub-Saharan Africa and Uganda inclusive, central authorities are often compelled to extend equalization grants to bridge inter-entity fiscal imbalances. Moreover, the donor community often steps in to support central government or aid affected entities directly (Lavertu, 2016; Warren et al., 2014).

As observed by Maultasch & Welch (2013) and recently by Cao et al. (2015), the most vulnerable victim of fiscal federalism is individual entity budgetary discipline. Majority local governments in Uganda; for instance, have over the years failed to ably manage the local tax-grants-donor aid triangulation resulting in budgetary indiscipline (Porumbescu, 2016).

From the foregoing socio-economic structure /budgetary discipline analysis, we predict that:

***Hypothesis 1:*** *Socio-economic structure holds a positive relationship with budgetary discipline.*

**Partisan Politics**

Budgetary theory (Stedry, 1960; Davis et al., 1966; Rubin, 1990) posits that fiscal federalism is a component of public finance; the connectivity between the politics and economics of the state. However, for political economy to operate effectively, the politics must be practiced maturely and transparently. That approach does not only generate local entity budgetary efficiency but significantly enhances budgetary discipline (Davis et al., 1966; Rubin, 1990).

In developing nations, partisan politics are often driven by tribal and ethnic bias and with the ultimate goal of perpetuating political leaders’ stay in power indefinitely (Cao et al., 2015; Lavertu, 2016). Related literature drawn from various Sub-Saharan Africa countries; Uganda inclusive, (Mergel et al., 2016; Porumbescu, 2016; Skoric et al., 2016) asserts that pre-mature partisan politics often compromises local government budgetary decisions in favor of the ruling party stakeholders. Ultimately budgetary discipline efforts are not easily realized. Therefore in line with previous partisan politics-budgetary discipline research, we propose the following:

***Hypothesis 2:*** *Partisan politics is positively related to budgetary discipline.*

**Ethnicity**

Various local governments and other sub-national entities in developing countries are often created on the basis of tribe and ethnic size. As pointed out by Lavertu (2016) and Porumbescu (2016), the nature of public services rendered to communities and related infrastructure; say, health units, schools, roads, and water and sanitation facilities, are therefore dictated by tribalism and ethnicity.

Besides, majority entity finance and budgetary manpower is commonly drawn from the local communities and mainly on tribal-ethnic considerations. In Uganda; for instance, the District Service Commission (DSC), is the body in local government exclusively responsible for identifying and recruiting entity employees. Numerous studies (e.g. Giosi et al., 2014; Mergel et al., 2016) report evidence that the DSC machination in the country often deploys manpower regardless of their technical capabilities.

Given that the foregoing tribalism-ethnicity-manpower intricacy may not only undermine local revenue but tremendously sabotage grants-donor aid budgetary funding configuration, it is apparent that budgetary discipline remains vulnerable. In this respect, we propose the following:

***Hypothesis 3:*** *The broader the entity ethnicity base, the lesser budgetary discipline is attainable.*

**Internal Control Systems**

Governments at central, state or local level always endeavor to run efficient and effective financial management systems. As Davis et al. (1966) and Rubin (1990) observe in the renowned public budgetary theory, properly organized financial management mechanisms breed fiscal transparency and eventually budgetary discipline. Moreover, the empirical work of Giosi et al. (2014) and Pettersson-Lidbom (2010) reveals that embedded within majority entity financial management mechanisms are internal control systems (ICSs).

Ideally, ICSs are basically set-ups that are meant to ensure that at all times: proper manpower recruitment and deployment, transaction and document authorization, complete book-keeping and accountability, and accurate financial reporting, are thoroughly executed (Giosi et al., 2014; Özer & Yilmaz, 2011; Pettersson-Lidbom, 2010). The challenge, however, is that attaining these standards in respect to budgetary activity; whether at central or local government level, constitutes budgetary discipline and quite often it is not easy to attain (Özer & Yilmaz, 2011).

It is along these lines of empirical evidence that several scholars; Giosi et al. (2014) and Pettersson-Lidbom (2010) inclusive, assert that in principle, budgetary discipline in resource-constrained environments such as that of Sub-Saharan Africa is not merely a function of social networks. Rather, the most critical factor is the status and efficiency of entity internal controls and social networks being subordinate (Giosi et al. (2014).

The foregoing deliberations seem especially evocative taking the Ugandan-based local entities internal controls-budgetary discipline linkages as a typical example. Recent research; say, (Egbide & Agbude, 2014; Mergel, 2016; Skoric, 2016), points out that internal control systems operated by majority local governments in the country are simply too weak.

Rampant rent-seeking and corruption practices, ethnicity, and politics have teamed-up and generally compromised the ICSs efforts. Consequently, the entities whether urban or rural entered never realize required budgetary discipline standards and often request for fiscal bail-outs (Mergel, 2016; Skoric, 2016). On the basis of the preceding seemingly inconclusive social networks-internal control systems-budgetary discipline perspectives, we predict that in local government:

***Hypothesis 4:*** *Internal control systems mediate social networks-budgetary discipline relationship.*

**Research Methods**

**Sample and Data**

From a geopolitical and administration perspective, Uganda is comprised of seven regions; that is, Western, South-Western, Central, North-Western, Northern, North-Eastern, and Eastern regions (Ministry of Local Government, 2019). This research explored budgetary activities of 33 districts, 7 municipalities, and 345 sub-counties resident in North-Western and Eastern regions of the country. The local entities identified on both random and purposive sampling criteria (Gennetian, Magnuson & Morris, 2008), have over the years been empirically underscored for budgetary discipline and fiscal policy irregularities (Egbide & Agbude, 2014; Ministry of Local Government, 2019).

The study population of 946 people, basically incorporated: Resident District Commissioners, Chief Administrative Officers, Local Council 5 Chairpersons, Town Clerks, Heads of Department, Sub-County Chiefs, Finance-related Employees, and Community Representatives (Ministry of Local Government, 2019).

The Yamane (1973) sampling approach underlined in Gennetian, et al. (2008) and Oertzen, Von Brandmaier and Tsang (2015) research, was adopted to generate a sample size of 435 from the 946 population. Given that similar cross-sectional research design and simulation studies (e.g. Iacobucci, Saldanha & Deng, 2007; Salibián-Barrera & Zamar, 2002) recommend a 70% response rate as quite reasonable, the 420 received-back questionnaires’ 97% response rate was found very satisfactory.

**Measures**

All variable constructs of this study were operationalized on the basis of properly-grounded measurements systematically extracted from existant literature. Methodological research; notably Salibián-Barrera and Zamar (2002), posits that strong construct measures do not only enhance effective control of the common methods bias threat but significantly strengthen statistical results reliability.

**Dependent Variable Constructs**

As stated earlier; common pool set-up, fiscal bail-outs, and grants policy constitute the budgetary discipline constructs. Accordingly, in order to effectively measure common pool set-up, a 14-item one-dimensional scale developed and validated by Willoughby (2014) was employed. The scale with a fairly high and commendable Cronbach’s Alpha Coefficient (α) [0.87], contained items such as: “This entity does not manage its common-pool concerns properly”.

Fiscal bail-out concept was measured by a 12-item scale; (α) [0.92], modified from the scholarly work of Besfamille and Lockwood (2008). Sample items from the scale included: “Bail-out is a very common practice in this locality” and “It is because of rare fiscal bail-outs that budget discipline in this entity has been inconsistent”. On the basis of adjusted scales in Egbide and Agbude (2014) and Nicolae (2013) studies; another 12-item scale (α) [0.79], was used in measuring the construct grants policy. One of its items ran as follows: “Grants is a critical form of funding for this local government”.

**Predictor Variable Constructs**

The probable local entity budgetary discipline predictor; social networks, was represented by socio-economic structure, partisan politics, and ethnicity as its key constructs. In order to effectively analyze its influence, the trio-constructs were measured along the following lines: Modified scales; (α) [0.94], from the works of Maultasch and Welch (2013) and Porumbescu (2016) were adopted to verify the factor socio-economic structure. “Budgetary activities in this locality are driven by what obtains in its socio-economic environment” is a sample item from the 15-item comprehensive scale.

The construct partisan politics was measured by 13 items embedded in a scale developed along the lines of those used by two scholars Cao et al. (2015) and Mergel et al. (2016). A typical item in that scale (α) [0.83], stated that: “Partisan politics is relevant for realistic budgetary discipline”. Moreover, the item: “Ethnicity defines local budgetary discipline realistically” was one of the 13 items comprising the scale employed to measure the ethnicity concept. That scale with an (α) [0.83] set-up, was a derivative of combined empirical works of researchers Lavertu (2016) and Skoric et al. (2016).

**Internal Control System**

Borrowing ideas from scales in the Giosi et al. (2014) and Pettersson-Lidbom (2010) research, a 14-item scale; (α) [0.95], was developed and engaged in measuring the anticipated mediator variable internal control systems. One of the scale items ran as follows: “This entity’s document authorization system is very efficient and often breeds desirable budgetary discipline outcomes”.

**Controls Management**

**Participant Biographical Profiles and Latent Variables**

Empirical experience (e.g. Gennetian et al., 2008; Özer & Yilmaz, 2011; Shaver, 2005; Warren et al., 2014) indicates that unless research participant biographical elements are controlled for, they tremendously compromise inter-variable statistical analysis results. Accordingly; participants’ gender, age, marital status, educational level, position held, and period served were controlled for in this study (Özer & Yilmaz, 2011).

Furthermore, latent variables systematically adopted to boost research instrument validity verification were also controlled for (Oertzen, Von Brandmaier & Tsang, 2015). Given that such variables are normally initially subjected to confirmatory factor analysis, unless controlled for they tend to impair hypothesis test results. Thus, all the study latent variables were controlled for (Salibián-Barrera & Zamar, 2002).

**Analytical Strategy**

In this research, statistical analysis was performed using both Statistical Package for Social Sciences (SPSS) and Analysis of Moments Structures (AMOS) software packages. As recommended by previous studies (Gennetian et al., 2008; Mergel et al., 2016), SPSS was engaged in handling participant biographical data, inter-variable correlation, and instrument reliability-validity assessments.

The AMOS software facilitated hypothesis (direct-indirect effects) testing by basically employing its structural equation modeling (SEM) module (Oertzen et al., 2015; Iacobucci et al., 2007; Salibián-Barrera & Zamar, 2002). Several simulation scholars; notably Oertzen et al. (2015), trust SEM for its exceptionally-reliable hypothesis test results. The results emanate from rational hypothesized model-original data comparisons. Dependable results are tenable as long as two models; a control variable free-measurement model and a structural model, are run concurrently (Oertzen et al., 2015; Iacobucci et al., 2007).

Furthermore, the measurement model facilitated verification of common methods variance (CMV) or bias often linked to hypothesis test flaws. Ideally, it may lead to spurious inter-variable relationship conclusions by either inflating or deflating results (Oertzen et al., 2015). Thus, in order to effectively corroborate CMV presence, we subjected data to Harman’s one factor test. The Harman’s test results must compare badly to those in the measurement model confirmatory factor (CFA) analysis to confirm that there is no CMV threat (Salibián-Barrera & Zamar, 2002).

**Results and Discussion**

**Biographical Data and Inter-Variable Correlations**

Much as the six participant biographical features indicated earlier had been statistically-controlled for, related analysis results ran as follows: Gender: (F 43%, M 57%); Age Bracket: [(18-25) 14%; (26-33) 27%; (34-41) 42%; (42+) 17%]; Marital Status: (Single 29%; Married 58%; Others 13%); Education: (Certificate 18%; Diploma 24%; Degree+ 58%); Period Served: (1-5) 33%; (6-10) 59%; (11+) 8%; [Position held: (Administrators and CFO, 16%; Heads of Department, 28%; Finance Activity-Related Employees, 37%; Community Representatives, 19%)]; n=420.

As recommended by previous studies (Nicolae, 2013; Porumbescu, 2016), the above-mentioned biographical profiles suggest that the surveyed entities’ operations are fairly gender-balanced. Besides, the fiscal activities are managed by quite mature and well-educated manpower with family responsibilities.

Statistical analysis results for variable means (M), standard deviations (SD), and correlation coefficients are presented in Table 1. The displayed (M) [2.99:4.69] and (SD) [1.664:3.171] range results broadly depict quite moderate and relevant values for the investigated variables and their constructs (Porumbescu, 2016).

**Table 1: Variable Means, Standard Deviations, Reliability Coefficients, and Correlations**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| # | Variable Item | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | Social Economic Structures | 3.41 | 1.664 | .84 |  |  |  |  |  |  |  |  |
| 2 | Partisan Politics | 3.27 | 1.667 | .43\* | .83 |  |  |  |  |  |  |  |
| 3 | Ethnicity | 3.57 | 1.440 | .71 | .35\* | .87 |  |  |  |  |  |  |
| 4 | **Social Networks** | 4.32 | 3.171 | .57\*\* | .42 | .23 | .79 |  |  |  |  |  |
| 5 | **Internal Control System** | 3.27 | 1.679 | .38 | .29 | .17 | .34\*\* | .81 |  |  |  |  |
| 6 | Common Pool Set-up | 3.88 | 1.882 | -.44\*\* | .31 | .26\* | .18 | -.47\* | .88 |  |  |  |
| 7 | Fiscal Bail-outs | 3.18 | 1.729 | .22 | .28\* | .41\* | .36 | .15\*\* | .27 | .74 |  |  |
| 8 | Grants Policy | 2.99 | 1.770 | .31\* | .43 | .23 | .51\*\* | .21 | .33\* | .47 | .85 |  |
| 9 | **Budgetary Discipline** | 4.69 | 2.437 | .18 | -.37\* | .28 | .46\*\* | .27\* | .29 | .34\* | .42 | .86 |

Notes: \*\*Correlation is significant at the 0.01 level (2-tailed); \*Correlation is significant at the 0.05 level

(2-tailed); Reliability coefficients in parenthesis; n=420.

Additionally, it can also be observed that majority variable-construct reliability coefficients scope; [(α = 0.74) – (α =0.88)], meets the regular methodology literature (Gennetian et al., 2008; Oertzen et al., 2015) acceptability endorsement.

As regards the numerous inter-variable and construct correlations also highlighted in Table 1, most of their [2-tail] coefficients are statistically-significant at both (0.01) and (0.05) levels. Majority of these coefficients happen to fall in the [(-0.47) – (0.57)] range.

Specifically, budgetary discipline relates with social networks and internal control systems to the extent of (r = 0.46, p < 0.01) and (r = 0.27, p < 0.05) respectively. As indicated in past studies (e.g. Gennetian et al., 2008; Shaver, 2005), such correlations technically suggest that as local entities capably manage their social networks and internal control systems to the magnitudes of 46% and 27%, targeted budgetary discipline standards are also attained to a similar level.

Comparatively, the budgetary discipline construct; common pool set-up, and that of social networks; social economic structures, associate to the extent of (r = -0.44, p < 0.01). Likewise, the variable budgetary discipline holds a negative; albeit, significant (r = -0.37, p < 0.05) relationship with the social network concept partisan politics. Respectively, the two results suggest that should locality social-economic structures improve by 44%, their common pool set-up performance declines by the same degree. And as local partisan politics escalate to the extent 37%, budgetary discipline standards tumble by the same level (Iacobucci et al., 2007).

**Hypothesis Testing**

In order to effectively unveil reliable hypothesis direct-indirect effect test results, research measurement models must be subjected to confirmatory factor analysis (CFA) (Salibián-Barrera & Zamar, 2002).

Moreover, other simulation empirical indication; notably (Oertzen et al., 2015), also emphasizes that model CFA results should comprise quite moderately significant-item loadings and reasonable goodness-of-fit indices.

Analysis of the measurement model for this particular study revealed the following CFA output: (χ2 = 2.743, df = 11, χ2/df = 0.249; IFI = 0.961; TLI = 0.981; CFI = 0.973; NNFI = 0.985; RMSEA= 0.025; SRMR = 0.06; L.000, H.214). Accordingly, these results somehow concur with the Oertzen et al. (2015) and Salibián-Barrera and Zamar (2002) insights.

**Table 2: Hypothesis Test Results**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Dependent Variable: Budgetary Discipline** | | | | | |
| **Particulars** | **β** | **SE** | **t** | **TV** | **VIF** |
| **Direct Effects** | | | | | |
| Socio-Economic Structure → Budgetary Discipline | .524\* | .326 | .461 | .792 | 1.208 |
| Partisan Politics → Budgetary Discipline | .357\*\* | .193 | .896 | .523 | 1.383 |
| Ethnicity → Budgetary Discipline | **-**.375\* | .171 | .917 | .834 | 1.671 |
| **Indirect (Mediation) Effect: Regular SEM Results** | | | | | |
| Social Networks **→** Internal Control Systems **→** Budgetary Discipline | .473\* | .247 | .111 | .687 | 1.413 |
| **Indirect (Mediation) Effect: Bootstrap Results** | | | | | |
| 95% CI [**-**0.124] **↔** [**-**0.317]; Adjusted R2 [0.683] | | | | | |

Notes: β = Beta; SE = Standard Error; TV = Tolerance Value; VIF =Variable Inflation Factor; Standardized

Beta Coefficients Reported; \*p <.05; \*\*p <.01; Bootstrap Sample Size = 2500; CI = Confidence Interval;

Hypotheses Status: Hypothesis 1[Supported]; Hypothesis 2[Supported]; Hypothesis 3[Not Supported];

Hypothesis 4[Supported]; n = 420.

As indicated in previous sections, the measurement model CFA results were also matched with those in the Harman’s single factor analysis to establish the common methods variance (CMV) position. Given that the Harman’s analytical set-up; (χ2 =4.951; df = 13; χ2/df = 0.381; IFI = 0.602; TLI = 0.821; CFI = 0.834; RMSEA = 0.115; L.106, H.124), compared badly with those of CFA, it implies that data employed in this research data were not under the CMV threat.

Furthermore, these results also reflect quite strong study instrument’s both construct and discriminate validity status (Oertzen et al., 2015; Iacobucci et al., 2007). The proposed four; direct-indirect hypotheses, were tested on the basis of the structural model running alongside the measurement model. Fortunately, model’s goodness-of-fit indices: (χ2) = 3.597; df = 15; (χ2/df) = 0.240; GFI = 0.963; NFI = 0.951; RFI = 0.902; IFI = 0.991; TLI = 0.972; CFI = 0.985; RMSEA=.017; L.000; H.135) strength meets existant research (Egbide & Agbude, 2014; Oertzen et al., 2015; Skoric et al., 2016) approval.

The scholars; notably Oertzen et al. (2015) and Skoric et al. (2016), caution simulation research that much as structural models goodness-of-fit indices may appear statistically-appealing, they often conceal multi-collinearity set-backs. Habitually, multi-collinearity; the abnormally robust inter-variable correlations, tremendously impairs hypothesis testing (Egbide & Agbude, 2014; Oertzen et al., 2015).

Presented in Table 2 are; inter alia, tolerance values (TVs) and variance inflation factors (VIFs) which indicate the level of multi-collinearity threat in the data set. Previous studies (e.g. Besfamille & Lockwood, 2008; Maultasch & Welch, 2013; Salibián-Barrera & Zamar, 2002) posit that the threat is considered non-existing if [TV-VIF] values happen to meet the following benchmarks: [(TV < 1.00) and (VIF < 10.0)]. Accordingly, it can be observed that the study data were not affected by the multi-collinearity problem (Maultasch & Welch, 2013). Besides, also provided in that tabulation, is the study’s regression model [Adjusted R2 =.683] position, and the various statistical results of hypotheses direct and mediation effects. The two analytical frameworks are handled in the ensuing direct and indirect effects sections.

**Direct Effects**

On the basis of input from existant theory-research-practice set-up, it had been proposed as Hypothesis 1 of this investigation that: socio-economic structures surrounding local governments hold a positive relationship with their budgetary discipline endeavors. This prediction was advanced relative to localities of the developing world especially those of Sub-Saharan Africa and in particular those surveyed in Uganda. Related structural equation modeling (SEM) analysis results; Table 2, (β =.524, p <.05, t-value .461), suggest that data support that hypothesis.

Moreover; in Hypothesis 2, it had been predicted that partisan politics governing entity administrative machinery have a positive association with budgetary discipline. Likewise, the SEM statistical test results; (β = .357, p <.01, t-value .896), also indicate data support to that proposition. Hypothesis 3; the last predictor proposal in this research, stated that: in local government, ethnicity relates positively with changes in budgetary discipline. Incidentally, the SEM-regression statistical test results (β = -.375, p <.05, t-value .917) indicate that available data could not support that hypothesis.

**Indirect (Mediation) Effect**

The theory-research-practice triangulation further prompted the proposition Hypothesis 4. In this hypothesis, it had been projected that a local entity’s internal control system is an apparent mediator of its social networks-budgetary discipline linkages.

Accordingly, Table 2 conventional SEM-related indirect effect results (β = .473, p < .05, t-value .111) proclaim that existant data render support to that hypothesis. Much as some simulation literature (e.g. Gennetian et al., 2008; Shaver, 2005) emphasizes SEM analysis as ideal for inter-variable moderating and mediating effects analysis, others; namely, Iacobucci et al. (2007) and Salibián-Barrera and Zamar (2002) claim associated results are rarely accurate and reliable.

Salibián-Barrera and Zamar (2002) in particular emphasize that SEM approach analysis cannot generate any consistent inter-variable mediation results simply because it is often driven by solitary samples. In addition, the SEM methodology also embraces all data-based latent factors which often undermines output authenticity. Thus, in order to validate the foregoing regular SEM-based mediation results, bootstrapping technique was employed. Mergel et al. (2016) and Salibián-Barrera and Zamar (2002) consider bootstrapping an extremely effective manifold sub-sample and non-latent variable mediation assessment procedure whose results are exceptionally reliable.

As also highlighted in Table 2, the bootstrap results; rooted in some 2,500 sub-samples, in regard to the social networks-internal control systems-budgetary discipline mediation set-up were as follows: 95% bias-corrected interval (CI) [**-**0.124] **↔** [**-**0.317]. Given that the (CI) holds a no-zero value within it, that bootstrap interval or range reflects statistical significance in respect to its variable contents.

Most saliently, however, Salibián-Barrera and Zamar (2002) and other bootstrap scholars, posit that the (CI) connotes a full mediation manifestation. As a reminder, Table 2 regular SEM-based mediation effect results (β = .473, p < .05, t-value .111) suggested that internal control systems was a mediator factor. This position is therefore confirmed by the bootstrap analysis.

In a nutshell, the foregoing conventional SEM-bootstrapping mediation mutual outlook conveys the following local entity budgetary practical message: much as social network activities may be vital for attaining required budgetary discipline, internal control systems also matter.

**Discussion**

In general terms, the results of this study support the overall proposal that in local government, social networks are critical for attaining required budgetary discipline standards. Likewise; if managed properly, entity internal control systems play an important role in the social networks-budgetary discipline outfit. The ensuing sections are a discussion of hypothesis-by-hypothesis statistical analysis findings in relation to data reaction.

In Hypothesis 1, it had been projected that local entity budgetary discipline has a positive relationship with surrounding socio-economic structure. Available data supported this proposal. This implies that; as remarked in previous literature (Besfamille & Lockwood, 2008; Maultasch & Welch, 2013; Warren et al., 2014), society economic wellbeing at both national and sub-national level has serious implications in the way local budgetary activities are executed.

Warren et al. (2014), for instance, indicated that the way local tax collections and grants are managed, determines the level of entity budgetary discipline. In majority Ugandan-based local governments, the Warren et al. (2014) empirical view is quite logical. As observed by Egbide and Agbude (2014), most entities are not able to collect enough local taxes due to community poverty levels and even the little collections are seriously vulnerable to rent-seeking malaise.

Moreover, central government rarely remits grants in sufficient amounts due to unreliable national tax collections. At entity level, grants are often never managed effectively due to lack of appropriate technical capacity and rampant corruption practices in most localities (Egbide & Agbude, 2014; Skoric, Zhu & Goh, 2016).

Data also supported the study proposition in Hypothesis 2 that in local government settings, partisan politics relate positively with budgetary discipline. In developing countries especially those of Sub-Saharan Africa; Uganda inclusive, party-based politics divide families, communities, and local administrative systems (Besfamille & Lockwood, 2008; Cao et al., 2015; Nicolae, 2013).

In Uganda; for instance, local entity administrators and employees are identified and recruited by the District Service Commission (DSC). Empirical evidence (e.g. Maultasch & Welch, 2013; Özer & Yilmaz, 2011; Porumbescu, 2016) affirms that the DSC is largely a partisan- politics machination and commonly appoints manpower on political allegiance basis. This is often in total disregard of their technical competence. Such fiscal direction has serious implications to the attainment of budgetary discipline dream (Özer & Yilmaz, 2011; Porumbescu, 2016).

Furthermore, our findings suggest that ethnicity; another social networks attribute, plays no positive role in the attainment of budgetary discipline in local government. In contradiction to our Hypothesis 3 and prior research (Lavertu, 2016; Porumbescu, 2016) standpoint, much as various entities notably in Sub-Saharan Africa host multiple tribes and ethnicities, budgetary allocation and implementation are independent of that influence. Some scholars such as Maultasch and Welch (2013), argue that from the Ugandan context, such a position is only tenable in entity environments whose DSC structure is extremely transparent and budgetary regulations are strictly adhered to. Those type of DSCs are rare to find even in the country’s quite developed urban local governments (Maultasch & Welch, 2013; Özer & Yilmaz, 2011).

Prior empirical research; particularly Giosi et al. (2014) and Pettersson-Lidbom (2010), assert that at local entity level, budgetary discipline cannot be meaningfully attained unless it is supported by a robust internal control system. Besides, Giosi et al. (2014) indicates that much as other factors such as social networks and entity location are believed strong predictors of budgetary discipline, internal controls are the inevitable in-house guide.

A similar view embedded in the budgetary theory (Davis et al., 1966; Rubin, 1990; Stedry, 1960) prompted formulation of our Hypothesis 4: entity internal control system mediates the social networks-budgetary discipline association. With full backing from data, it can therefore be concluded that local entities need to operate reliable internal control systems in order to attain sustainable budgetary discipline standards.

**Conclusion**

**Theory, Research and Practice Implications**

Essentially, results generated in this research are interpreted from the budgetary theory model context especially in regard to local government fiscal operations. Formulated by Stedry (1960) and later advanced by both Davis et al. (1966) and Rubin (1990), the theory states that in order to realize entity fiscal efficiency, budgetary discipline must be always be attained.

This is simply because ultimate budget beneficiaries; the community or society, evaluates fiscal efficiency on the basis of fiscal incrementalism (Davis et al., 1966). Later, the empirical work of Rubin (1990) reveals that fiscal incrementalism significantly contributed to Stedry (1960)’s formulation of the budgetary theory.

Much as this study could not test fiscal incrementalism; budgetary theory’s principal component, its findings are consistent with major theoretical underpinnings. In particular, in accordance with related research (Nicolae, 2013; Özer & Yilmaz, 2011; Willoughby, 2014), we find that overall social networks dynamics predict changes in budgetary discipline. As indicated by Davis et al. (1966); for instance, societal econo-political environment often dictates entity efficiency ratings. Thus, if the budget is implemented incompetently, budgetary discipline can be compromised and eventually impair societal fiscal incrementalism (Davis et al., 1966; Willoughby, 2014).

The findings from this research also impact existant fiscal federalism literature and particularly local entity budgetary discipline knowledge body. Notably, its findings are quite novel relative to past empirical set-up. The findings highlight entity internal control systems mediation bearing in the social networks-budgetary discipline triangulation along the following lines: despite previous studies (e.g. Besfamille & Lockwood, 2008; Egbide & Agbude, 2014; Maultasch & Welch, 2013; Mergel et al., 2016) in depth exploration of budgetary discipline, they largely overlooked the potential influence of internal control systems. Likewise, the few scholarships which examined local government internal control systems-budgetary discipline linkages; notably Giosi et al. (2014) and Pettersson-Lidbom (2010), had no comprehensive analysis of the social networks influence.

Furthermore, this research holds acute practical inferences to local entity budgetary endeavors. First, the study substantiates the value of socio-economic structure in enhancing budgetary discipline in local government. Accordingly, especially Sub-Sahara African-based entities and specifically those of Uganda should often endeavor to understand and comply with the socio-economic environment surrounding their budgetary expectations. Consistent with Nicolae (2013) and Willoughby (2014) views, such regard to community economic needs will not only enhance entity fiscal incrementalism but will significantly overhaul its federalism reputation.

Second, entity administrative machinery must also appreciate the fact that fiscal federalism is a direct offshoot of the political formation, decentralization. What is practically expected is that entity authorities simply need to appreciate the governing partisan politics make-up and technically manage their budgets accordingly. Budgetary theory (Davis et al., 1966; Rubin, 1990; Stedry, 1960) emphasizes that institutional budgeting lies in the center of and will never avoid politics.

Third, clan hood, tribalism and ethnicity are typical community ingredients in developing countries. Much as this research reports no ethnicity influence in Ugandan-based surveyed local entities, previous studies find it a practical norm. Nevertheless, we adopt (Egbide & Agbude, 2014; Özer & Yilmaz, 2011) standpoint that entities should always guard against ethnicity if they have to realize sustainable budgetary discipline.

Besides, ethnicity compromises manpower identification and deployment. In sensitive activities such as budgeting, weak personnel capacity does not only weaken internal control structures but significantly undermines budget implementation (Skoric et al., 2016).

**Limitations and Future Research Paths**

Although this study contributes much to contemporary fiscal federalism and particularly local government budgeting research, it was also a host to some limitations. These include the following: Data employed were largely of a cross-sectional nature. Such data are commonly susceptible to causal inference malaise characterized by reversed causality and/or confounding variable influences (Gennetian et al., 2008).

Related common methods variance was therefore first tested for and addressed on the basis of confirmatory factor analysis-Harman’s single factor approach (Oertzen et al., 2015; Salibián-Barrera & Zamar, 2002).

The research was an investigation of budgetary discipline as it obtains in local governments located in only the north-western and eastern regions of Uganda. Today the country’s seven regions is a host of around nine cities, multiple municipalities and towns, and 250 districts. This implies that much as data were collected from multiple entities, its findings may not be all-inclusive given the country’s recent federalism ambitions.

Against the foregoing study limitations background, it is suggested that future research may adopt longitudinal and/or experimental methodology to further curtail the constraints embedded in cross-sectional design. As noted in past studies (e.g. Cao et al., 2015; Iacobucci et al., 2007), when investigations embrace newly-created entities, a broader research design is the most appropriate. It is also proposed that future studies specifically carry out an exhaustive investigation of the effect of ethnicity on local entity budgetary discipline undertakings. Much as this research reports ethnicity-budgetary discipline non-connectivity in Uganda’s investigated entities, Sub-Saharan Africa fiscal federalism has for long been reported a common victim of tribalism and ethnicity (Giosi et al., 2014; Mergel et al., 2016).

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