

## Chapter 7

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# THE NUMBERS TELL THE TALE: A SPEND ANALYSIS IN FIVE GOVERNMENT PROCURING AND DISPOSING ENTITIES IN UGANDA

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### I. INTRODUCTION

Procurement is a large part of any organisation. It is on average 70% of turnover for companies (Telgen, 1999) and between 40% and 50% of GDP for governments (Knight, et al., 2007). Taking a strategic approach to procurement involves a range of activities—from using “spend analysis” to develop a better picture of what an entity is spending on goods and services, to taking an enterprise wide approach for procuring goods and services, to developing new ways of doing business. Procurement can use spend management to understand an organization’s buying patterns through a thoughtful, systematic analysis of procurement data, also referred to as spend analysis. Spend analysis is a process of collecting, cleansing, classifying and analyzing expenditure data from all sources within the organization (CIPS and NIGP, 2012).

Conducting a spend analysis to obtain improved knowledge on procurement spending is a critical component of an effective strategic approach. The analysis identifies where numerous suppliers are providing similar goods and services—often at varying prices—and where purchasing costs can be reduced and performance improved by better leveraging buying power and reducing the number of suppliers to meet the company’s needs (US Government Accountability Office, 2004).

Governments spend a great portion of the nation’s GDP on public procurement. For example, in 2015, the U.S. government spent 9.3% of its GDP of \$18,121 billion (World Bank, 2018) on public

procurement, or \$1,721 billion on public procurement (Thai, 2019). Yet very little of this expenditure is managed in a strategic way. States have little visibility into how agencies spend their money, and there is little knowledge sharing between agencies in optimizing spending. If states can take a more strategic view of spending, they have the potential to harness their budgets to negotiate better contracts while gaining greater procurement efficiency and oversight. (NIGP, 2015).

When done correctly, spend analysis allows the organization to identify opportunities to leverage buying power, reduce costs, improve operational performance and provide better management and oversight of suppliers, while improving relationships with internal and external stakeholders (NIGP, 2012).

Spend analysis can provide information to support procurement decisions on strategic sourcing. Unfortunately, spend management has been neglected by many public entities. It is estimated that state governments can save 5 to 20 percent of expenditures by improving procurement processes. Yet despite the potential benefits, a strategic approach to procurement remains a distant goal for many states (NIGP, 2015).

This paper is an outcome of spend analysis undertaken by Government of Uganda (GOU) with support from the Third Financial Management and Accountability Programme (FINMAP III) for the Financial Years (FYs) 2013-2014 and 2014-2015 in a sample of five (5) government Procurement and Disposal Entities (PDEs). The analysis was intended to help government to understand its spending patterns, and obtain accurate data on what goods and services the government buys; know how they are purchased and where they are sourced to specifically gain a detailed picture of the spend profile, current supply/market base and the total spend across the defined categories.

## **II. STATEMENT OF THE PROBLEM**

The Government of Uganda is implementing the Third Financial Management and Accountability Programme (FINMAP III) with the primary purpose of improving effectiveness, efficiency and attainment of value for money in the control and management of public resources ultimately contributing to improved service delivery.

To this direction, GOU has made tremendous improvements in strengthening public financial management through establishment of an enabling legal and regulatory framework, automation of an Integrated Financial Management System (IFMS) across Central and Local governments and building capacities of its personnel among others.

In pursuit of attaining Value for Money (VFM) in public expenditure management through focused reforms in public procurement, the GOU is introducing e-procurement to support efficiency, transparency and improved compliance to set rules and procedures as a catalyst to improved performance. These reforms have registered success particularly in improving efficiency of business processes. However, challenges still exist particularly in budget credibility and control.

It is therefore critical for government to understand its spending patterns as such insight identifies opportunities for optimum planning/budgeting and use of the scarce financial resources, development of strategic sourcing options, volume aggregation and procurement leverage, management of supplier performance and continuity of service, contract compliance and risk management, inventory management and development of an e-procurement policy and strategy for government. Spend analysis constitutes one of the key starting points in any strategic procurement process that drives total value and creates a target for spend savings.

Although public sector procurement in Uganda has evolved over the years, there is lack of accurate data on what goods and services are bought by government, how they are purchased and where they are sourced. Better management of resources requires knowledge on how and what government spends on, as well as the capability to generate this information. For any public procurement management program to be successful, it will largely be dependent upon the ability of government to access, organize, and analyze spend data. It is envisaged that once a spend analysis is conducted, government will gain a detailed picture of its spend profile, current supply/market base and the total spend across defined categories.

The key objective of the study was to generate spend analysis for the Government of Uganda which will inform the formulation of procurement policy and strategy aimed at enhancing promotion of

superior sourcing decisions at favorable costs and improving operational performance.

### III. METHODOLOGY AND APPROACH

According to CIPS and NIGP 2012, spend analysis begins with identifying sources for collecting spend related data for the organization. These sources can be both internal (i.e. procurement, financial, or logistics systems) and external (i.e. procurement card). Once data is collected it should be cleansed, grouped, categorized and analyzed; the above line of inquiry informed our approach to the study. We reviewed government spend patterns for the FYs 2013-2014 and 2014-2015. This involved extracting and capturing all the procurement related spend made by the selected procuring and disposal entity (PDE) through the internal and external systems for the two financial years. A sample of five (5) government PDEs was taken namely; Office of the Prime Minister (OPM), Ministry of Education and Sports (MOES), Ministry of Water and Environment (MWE), Uganda National Roads Authority (UNRA), and Mulago National Referral Hospital (MNRH).

Two major steps were identified for each PDE as follows:

1. Preparation for data analysis which involved:
  - a. Defining of spend analysis scope,
  - b. Categorizing commodities,
  - c. Extracting data,
  - d. Cleansing data,
  - e. Classifying data.
2. Conducting data analysis which comprised
  - a. Analyzing data,
  - b. Reporting.

In preparing for data analysis, spend data was gathered manually from across the multiple systems including IFMS (Accounts Payable (AP) and General Ledger (GL)), and Procurement Unit (PU) – (Procurement Monthly Reports, Procurement Plan) and collated to enable a comprehensive analysis of procurement spend on goods, works and services.

We defined our scope and obtained data as follows:

Source of data	Data field requirement
GOU payment report	invoice date, invoice number, invoice currency, invoice amount (including & excluding vat), invoice description, supplier number, supplier name & trading partner, ledger number & charge item, ledger name
Input report	PO & contract number, PO & contract description, PO & contract amount, Value Added Tax(VAT) code (optional)
Procurement monthly reports	Cost centre & user department number, cost centre name (operating unit & user department), procurement method, procurement category (supplies, works, consulting, consulting non-consulting)

The primary data source was the IFMS' generated GOU Payment Details Report. The other reports complemented the GOU Payment Report and contributed the missing fields. PDE procurement spend that is not on the IFMS, for example, spend relating to projects was not considered due to the lengthy time-span it would take to access it.

Procurement spend related data was extracted from the report for analysis, hence spend data deemed not to be procurement-related were excluded. The spend data that was excluded consisted of payments such as salaries, per diem allowances, facilitations, medical allowances and burial expenses paid to individual employees among others. The understanding of procurement spend data was derived from the definition of procurement according to the Public Procurement and Disposal of Asset (PPDA) Act 2003 as amended; i.e. "procurement" means acquisition by purchase, rental, lease, hire purchase, license, tenancy, franchise, or any other contractual means, of any type of works, services or supplies or any combination.

#### IV. CHALLENGES IN DATA AND DATA COLLECTION

##### 4.1. Data Harmonisation

Data-fields were obtained from multiple sources in order to form a complete record for analysis. From the IFMS, the GOU payment report and the input report provided some fields while the

procurement monthly reports also furnished the additional fields. Since the IFMS does not capture certain procurement data such as contract reference, contract date, procurement method and user department, monthly procurement reports were used. However, there was a challenge in the harmonization process; the difficulty in locating fields (scattered in different files, some manual) that relate to a common procurement transaction. For instance, the monthly procurement reports have information on contracts awarded while the GOU payment reports relate to payment information; the two actions in the procurement process (contract award and contract payment) have several months between them and besides a contract awarded does not necessarily translate into signature and execution.

#### **4.2. Spend Data Quality and Accuracy**

The spend data provided to the analysis team had significant quality concerns and was incomplete arising from the following issues:

- Fragmented procurement spend information across multiple information systems (IFMS, PDU – Procurement Monthly Reports, Procurement Plan, and Ministerial Policy Statements). Gathering data from these sources was a complex exercise considering that most of this information especially from the PU is largely maintained in a manual form.
- Inadequate automated mechanism to consolidate or manage spend data within the entity.
- No single consistent classification for spend and supplier data.
- No central visibility or management of contract data (no contract register).
- No accurate and comprehensive data on the total entity's suppliers
- No standard categorisation for procurement spend data currently in existence across the entities as the categorisation in use under IFMS is designed to satisfy the needs of the finance function (capturing payments based on chart of accounts).
- No single consistent classification for spend and supplier data as each entity has its own description and coding for common supplier.

Suppliers have more than one identifier (code); the names look similar and just have slight differences (*a dot, an abbreviation or an additional letter*) that allows the system to create another code; the invoice details appear to show that the same procurement transaction is being paid. If not controlled, it may be exploited to the detriment of government.

#### **4.3. IFMS as a Source of Data**

The PU which is the custodian of the procurement information has insufficient related and relevant procurement spend data-set. The procurement monthly reports are inadequate in providing procurement spend data considering that they only depict procurement transactions and contracts approved and not the actual funds spent upon execution; which is the gist of procurement spend analysis, besides the procurement monthly reports are not aligned to the procurement plan.

The spend data is classified into 'spend categories' but not collated at a product level due to low levels of procurement detail captured in IFMS. IFMS typically captures payments to suppliers but not the volume or price of the goods or services involved; besides most procurement-related data including procurement and contract reference number and actual description is also not captured. Hence, relying on the finance-based data, where some descriptions of procurement as per invoice do not match the categories (item charged) based on the Chart of Accounts.

For quite a number of procurement transactions, vital data relating to suppliers is not captured at the time of creating a record in IFMS which may lead to understating spend on a particular supplier. For example, some payments by EFT do not capture actual supplier instead it records the bank as the Supplier i.e. Fuel is recorded as supplied by Stanchart or UBA as cited at MOWE or payments to Treasury for FOREX transactions captures the Treasury Account as the supplier and through Letters of credit (GOU LC); in many cases without providing the name of the supplier being paid.

Withholding Tax (WHT) ideally is part of the payment to the supplier and included in the contract price. The IFMS record shows WHT payment to URA as a supplier and the payment details do not indicate the actual amount paid by the supplier on whose behalf it is paying.

Description of procurement based on the invoice does not match the categories (item charged) based on the Chart of Accounts. For instance, in the description, we noted that *Airtickets* were purchased from a travel agent as the supplier but the item charged (spend category) shows *Allowances*. Ideally the spend category “*Allowances*” is overstated and the spend category “*Airtickets*” is understated.

These IFMS-based challenges in data extraction and cleansing provide synergistic opportunities that can be exploited to improve spend data management – the finance function/unit can work together with their counterpart procurement function/unit to deliver a more robust centralized spend data system.

In addition to the existing IFMS fields, procurement-specific fields may be added on to the platform to capture vital information such as the contract number, amount, procurement category, procurement method, and others fields that are deemed fit.

#### **4.4. Inaccurate or Incomplete Data**

IFMS was designed for transaction processing, control and reporting. It has an inbuilt financial report generator functionality that supports reporting and analysis. However, the detailed information needed for effective spend data classification and analysis is found in unstructured data within IFMS, besides the data entry is largely inaccurate and incomplete. As a database, it is missing critical data procurement fields, such as contract number, product attributes or account codes and besides, there are fields which the users do not fill or fill inaccurately. Such errors must be corrected at the outset to avoid problems with data classification and analysis.

### **V. SPEND ANALYSIS RESULTS**

The objective of this spend analysis was to conduct and gain a detailed picture of the government spend profile, current supply market base and the total spend across defined categories. This would inform government in the formulation of procurement policy and strategy aimed at enhancing promotion of superior sourcing decisions at favorable costs and improved operational performance among others. Our first analysis was in relation to each PDE's procurement spend, number of suppliers and the number of invoices.

### 5.1. Total Procurement Spend, Number of Invoices and Number of Suppliers

The five PDEs spent a total of UGX 1,098,461,495,933 (UGX 3,200.00 = USD 1.00) on procurement-related transactions with 3,744 suppliers generating 9,462 invoices for the FY 2013-2014. In the FY 2014-2015 a total of 11,690 invoices were processed for 4,368 suppliers representing UGX 1,446,588,669. A similar spend trend is observed across the PDEs over the two financial years. Table 1 presents the individual entity procurement spend, number of suppliers and the number of invoices.

**TABLE 1**  
**Number of Suppliers and Invoices, and Total Procurement Spend per Entity: FY 2013-2014 (or FY 2014) and FY 2014-2015 (or FY 2015)**

	Number of Suppliers		Number of Invoices		Procurement Spend (In UGX Million)	
	FY 2014	FY 2015	FY 2014	FY 2015	FY 2014	FY 2015
UNRA	2,019	2,546	3017	3,747	904,981	1,235,728
OPM	323	289	866	715	35,296	51,388
MOES	502	591	2148	2,405	41,625	31,650
MOWE	706	778	2851	4,415	99,953	105,179
Mulago	194	164	580	408	16,607	22,643

### 5.2. Invoices Analysis

In conducting an analysis of the invoices, we aimed at establishing the number of invoices, the pattern in which they are received and determine how to reduce their number through “*invoice consolidation*”. This analysis helped in identifying areas that can possibly be further investigated to make the processing more efficient and effective. Below we provide a further detailed analysis of the invoices.

#### 5.2. 1. Analysis of invoices using the Pareto Analysis scrutiny

Pareto Analysis is a systematic and structured approach used to distinguish between the “*vital few and the trivial many*”. The invoices were subjected to Pareto Analysis to establish the proportion of invoices that have a significant influence on procurement spend, to enable the PDE isolate and focus on the vital few. Table 2 provides the results of the analysis for each entity and the combined average.

**TABLE 2**  
**Proportion of Invoices on Spend Value Using Pareto Analysis:**  
**FY 2013-2014 and FY 2014-2015**

		FY 2014	FY 2015	FY 2014	FY 2015
		20% of Spend Incurring in		80% of Spend Incurring in	
Entities' Average	Percentage of Invoices	89%	91%	11%	9%
OPM		71%	83%	29%	17%
MOES		94%	91%	6%	9%
MOWE		97%	94%	3%	6%
Mulago		90%	92%	10%	8%
UNRA		95%	96%	5%	4%

It is clear that 80% of total spend in the five PDEs on average was derived from 11% and 9% of the invoices for FY 2013-2014 and FY 2014-2015, respectively.

The implication is that a significant effort is spent managing a very small portion of the PDE spend. This increases transaction costs and processing time. When frequent transactions are being made for a relatively small amount of spend, opportunities for process automation are created.

### **5.2.2. Invoice Clusters and Spend Value**

In order to gain visibility, clusters that aim to reflect PPDA-based procurement thresholds i.e. micro procurement, Request for Quotation (RFQ) and Open Domestic Bidding (ODB) were made and invoices analysed against spend using the clusters. The aim was to understand the value, if any, the get from processing several transactions. Table 3 provides an analysis of the total number of invoices per cluster and its representative total spend value for the combined five entities. For both FY 2013-2014 and FY 2014-2015, there were many invoices frequently being processed at the low value threshold yet their contribution in terms of procurement spend was less significant as clearly, the two move in the opposite direction. On average over 93% of invoices were for less than UGX 100,000,000 (Micro and RFQ) yet these influenced only 8% of procurement spend for both FYs 2013-2014 and 2014-2015. The analysis shows that

**TABLE 3**  
**Invoices Compared to Spend Value within a Cluster of Spend for FY**  
**2013- 2014 and FY 2014–2015**

Invoice Bands (In UGX Million)	FY 2013-14		FY 2014-15		FY 2013-14		FY 2014-15	
	#	%	#	%	UGX Million	%	UGX Million	%
Invoices: <=5	5,763	60	7,343	63	8,414	1	10,999	1
Invoices: >5,<=100	2,993	32	3,481	30	71,822	7	76,315	7
Invoices: >100,<=200	173	2	271	2	24,547	2	38,763	2
Invoices: >200,<=500	194	2	207	2	61,652	6	66,118	6
Number of Invoices: <500	339	4	388	3	932,026	84	1,254,395	85
<b>Total</b>	<b>9,462</b>	<b>100</b>	<b>11,690</b>	<b>100</b>	<b>1,098,461</b>	<b>100</b>	<b>1,446,589</b>	<b>100</b>

Note: # = Number.

over 61%-63% of the invoices fall under the UGX 5 million threshold and these could probably be generated through micro procurements that may go unnoticed by the internal procurement system, besides the purchases were made by various staff.

### **5.2.3. Invoice Clusters: Number of suppliers that issued invoices and their spend value**

In analysing invoices, we also sought to determine the number and/or frequency of invoices within a financial year, which each supplier issued to an entity; such analysis provides direction for the possibility of invoice transactions' consolidation and reduction. As shown in Table 4 it is evident that 60% and 62% of suppliers issued a

**TABLE 4**  
**Suppliers Who Issued Invoices within a Cluster Compared to Spend**  
**Value: FY 2013-2014 and FY 2014-2015**

Suppliers who Issued	FY 2013-14		FY 2014-15		FY 2013-14		FY 2014-15	
	#	%	#	%	Spend <sup>1</sup>	%	Spend <sup>1</sup>	%
12 Invoices and above	208	6	290	7	818,089	74	732,814	51
7 to 11 Invoices	200	5	256	6	61,081	6	322,903	22
4 to 6 Invoices	377	10	369	8	85,762	8	153,338	11
2 to 3 Invoices	726	19	751	17	83,244	8	136,387	9
1 Invoice	2,233	60	2,680	62	50,285	5	101,147	7
<b>Total</b>	<b>3,744</b>	<b>100</b>	<b>4,346</b>	<b>100</b>	<b>1,098,461</b>	<b>100</b>	<b>1,446,589</b>	<b>100</b>

Notes: # = Number. <sup>1</sup> In UGX Million.

single invoice, on average representing 5% to 7% of total spend for FY 2013-2014 and FY 2014-2015 respectively as shown in Table 4. When these results are read together using the Pareto Analysis, it is clear that effort and time is devoted on the trivial many at the expense of the vital few.

It is possible that the majority of suppliers that issued a single invoice could be ad-hoc one-off suppliers. Fragmented low-value purchases are often a symptom of unplanned procurements and can take a number of forms. It can mean making a one-off or several low value purchases from a non-contracted supplier. It can also mean issuing a number of low-value purchase orders to a contracted supplier, rather than sending a single Purchase Order (PO). Nonetheless, this is not the most efficient and effective way to handle procurement transactions.

Paying a larger number of low-value invoices may represent a significant administrative cost to an entity. An entity can benefit from reducing the volume of invoice processing they do – and they can do this by reducing the number of micro procurement and request for quotations. This can also be achieved by reducing the number of invoices from regular suppliers. Establishing a regular invoicing cycle with suppliers for instance on a monthly or quarterly basis, can deliver benefits to both agencies and their suppliers.

Effort, cost and time per transaction or supplier could be established to explore efficiency improvements in minimising transaction costs and processing time.

## **VI. SUPPLIERS' ANALYSIS**

Comparing the amount of spend to the number of supplier transactions is one indicator of acquisition efficiency. Examining spend by suppliers revealed the degree of spend fragmentation, as well as potential opportunities for improving supply terms. If spend is highly fragmented, a deeper look into understanding the reasons why may be required. In case spend is concentrated with a relatively few number of suppliers, the entity may explore ways to reallocate spend or expand the supplier base to improve terms.

### 6.1. Analysing Suppliers and Spend Value using the Pareto Scrutiny

As shown in Table 5, it is evident that on average 80% of total procurement spend for the five entities arose from 10% and 8% of the suppliers for FY 20-2014 and FY 2014-2015, respectively. A significant effort is spent managing a very small portion of the entity's spend. The many suppliers account for very little in spend. This scenario increases transaction costs and processing time. When frequent transactions are being made for a relatively small amount of spend, opportunities for process automation are created.

**TABLE 5**  
**Pareto Analysis Based on Suppliers and Spend Value: FY 2013-2014**  
**and FY 2014-2015**

		20% of Spend Incurring in		80% of Spend Incurring in	
		FY 2013-14	FY 2014-15	FY 2013-14	FY 2014-15
Entities' Average	Percentage of Invoices	90%	92%	10%	8%
OPM		72%	82%	28%	18%
MOES		94%	91%	6%	9%
MOWE		96%	93%	4%	7%
Mulago		90%	95%	10%	5%
UNRA		99.5%	99%	0.50%	1%

### 6.2. Suppliers and their Spend Value

In addition to the Pareto Analysis, the suppliers were analyzed based on spend bands that reflect the PPDA-based threshold in order to establish the number of suppliers falling into each cluster and their level of influence on spend value. As shown in Table 6, it is clear that for both FYs 2013-2014 and 2014/2015, over 90% of suppliers lay in the clusters for less than UGX 100,000,000 yet these influenced only 4% and 3% of procurement spend for both FYs 2013-2014 and 2014-2015 respectively. In fact over 49% of the suppliers fall under the UGX 5 million threshold; probably generated through micro procurements that may go unnoticed by the internal procurement system, especially the purchases made by various staff. When these results are read together with the Pareto Analysis, it is clear that effort and time is devoted on the trivial many suppliers at the cost of the vital few.

**TABLE 6**  
**Suppliers Compared to Spend Value within a Spend Cluster: FY 2013-2014 (or FY 2014) and FY 2014-2015 (or FY 2015)**

Suppliers Billing (UGX)	FY 2014		FY 2015		FY 2014		FY 2015	
	Number	%	Number	%	Spend (In UGX Million)	%	Spend (In UGX Million)	%
<=5M	1,821	48.6	2,284	52.6	3,158	0.29	3,900	0.27
>5M,<=100M	1,580	42.2	1,619	37.3	41,013	3.73	38,060	2.63
>100M,<=200M	110	2.9	142	3.3	15,265	1.39	20,492	1.42
>200M,<=500M	108	2.9	139	3.2	34,913	3.18	42,789	2.96
Above 500M	125	3.3	162	3.7	1,004,112	91.41	1,341,347	92.72
<b>Total</b>	<b>3,744</b>	<b>100</b>	<b>4,346</b>	<b>100</b>	<b>1,098,461</b>	<b>100</b>	<b>1,446,589</b>	<b>100</b>

### 6.3. Top 10 Suppliers and their Percentage Influence on Spend Value

When executing supplier analysis it is critical that the top suppliers are isolated and known and the level of influence they have within the procurement spend. This assists in designing procurement strategy. Some suppliers appear in more than one entity as common suppliers. As shown in Table 7, on average the top most supplier account for 12%-16% of the total spend, while the top 10 suppliers represent 55%-61% of total spend for the combined FYs of 2013-2014 and 2014-2015. In Mulago and UNRA, the proportions of the top 10 suppliers was over 70% in both financial years. The key insight from this analysis was that the entity spend is relatively concentrated to a few suppliers. Strategic relationships with the intention of improving supply terms is possible, besides rationalizing of the very many small suppliers.

**TABLE 7**  
**Percentage of Top Suppliers in Procurement Spend**

	2013-2014		2014-2015	
	Top Supplier	Top 10 Suppliers	Top Supplier	Top 10 Suppliers
Entities' Average	16%	61%	12%	55%
OPM	10%	38%	8%	44%
MOES	22%	56%	9%	47%
MOWE	17%	63%	9%	51%
Mulago	18%	69%	23%	81%
UNRA	15%	78%	9%	51%

#### **6.4. Common Suppliers and the Prospect of Entities Cooperating**

An in-depth scrutiny of the list of suppliers revealed that 73 suppliers in FY 2013-2014 and 80 suppliers in FY 2014-2015 are common to more than one entity. Observing the invoice transaction description, the suppliers provide similar goods, services and works including construction, tyres, furniture, stationery, airtickets, foodstuffs, hotel services, vehicles, repairs, maintenance and servicing vehicles among others. However, it was not possible to determine the quantities and unit prices for these common goods, services and works for each entity from the invoice description as it required perusing through the original procurement files, which was constrained by time. Hence a comparison at unit prices was not possible and therefore not included in this study.

Given the product categories listed in the top 25 by spend value, government may explore the opportunity for joint or collaborative procurement for such items like vehicles, air tickets and fuel, where entities cooperate to make one procurement or government delegates a specialised entity to coordinate the procurement of the product. Accordingly, the Procurement Policy Management Department under the Ministry responsible for finance could explore the policy and strategy that exploits economies of scale and reduce transaction costs for government. A lead entity could spearhead the procurement process for all to take advantage of economies of scale and better negotiating edge. This can lead to significant savings for the government as it reduces transaction costs i.e. adverts, meetings, paperworks and the savings arising from price differences amongst the entities.

#### **6.5. Procurement Category Analysis**

Analyzing spend by category is the basis for the adoption of a “category management” approach to procurement. The entity is able to establish where the opportunities to rationalize/extend the supplier base are located, which suppliers enjoy a relative monopoly of supply, which categories have too many suppliers and where aggregation could drive costs and prices down. In the absence of standard procurement-based categorisation of spend, the financed-based categories based on the Chart of Accounts were utilised although with reservations on the interpretation worthness.

We observed for each entity, amongst the top 10 spend by category, there existed categorisation that does not reflect the common standard procurement categorisation.

In analysing spend by category we relied on the finance-based data (IFMS). However, we observed that the description of procurement as per invoice does not match the categories (item charged) based on the Chart of Accounts. For instance, Miscellaneous Other Expenses and Residential Buildings, we found the supply of different product categories that ordinarily should be elsewhere. This implies that there are mis-charges that distort category analysis and besides some are a result of advances to staff which bypass the formal procurement system. The fact that they have over UGX 1 billion, and yet when scrutinized, the description of payments done from this account item is not related to it calls for proper recording and reporting

An opportunity for standard categorisation of procurement spend be explored so that even if the account charged is different (for purposes of payment), the actual product acquired/procured should be well described or coded in accordance with the details outlined in the subject of the procurement.

#### **6.6. Summary of the Findings and Lessons**

- a) A significant volume of total entity spend arises from a few suppliers: Over 80% of total spend arose from 10% and 8% of the suppliers for FYs 2013-2014 and 2014-2015 based on Supplier Analysis.
- b) The top 10 suppliers in terms of spend value depends on an individual entity, however among these suppliers, there were categories common to more than one entity, for instance suppliers of construction works, fuel, vehicles and air tickets were among the top ten in 2-3 entities.
- c) Most procurement spend is originated from a small number of invoices: Over 80% of total procurement spend originated from 11% and 9% of the invoices for FYs 2013-2014 and 2014-2015 based on Invoice Analysis.
- d) High transaction cost and processing time: entities spend a high effort in managing a high volume of micro procurements which amount to a small portion of the total entity spend. The

suppliers in the top 10 are works contractors that originate installment payments as contracted. Others supply items such as fuel, stationery, toner, tyres, vehicle servicing, newspapers, repairs and maintenance, air tickets, product categories whose supply agreements can be frame worked and invoice consolidation negotiated to reduce transaction processing costs and time.

- e) There is no centralised source of procurement spend information: Spend data is fragmented or located across multiple information systems; there was no adequate automated mechanism to consolidate or manage spend data within the entity; no single consistent classification for spend and supplier data; no central access to and timely procurement spend data; no central visibility or management of contract data and no accurate data on the total entities' suppliers.
- f) There is inadequate reporting on procurement spend data at entity level: Procurement monthly reports of the entity were inadequate in providing procurement spend data as they only depicted procurement transactions and contracts approved and not the actual funds spent upon execution.
- g) Financial data systems (IFMS) have inaccurate and incomplete data: Spend data was unstructured within IFMS and data entry was largely inaccurate and incomplete as the database was missing critical procurement data fields, such as contract number, product attributes (quantity and price per unit), or account codes.
- h) Supplier data is not standardized or maintained consistently within and across the entities resulting in a lack of clarity on supplier numbers, spend by supplier and category both within and across entities. Some suppliers have more than one identifier (code) the names look similar and just have slight differences (a dot, an abbreviation or an additional letter) that allows the system to create another code; the invoice details appear to show that the same procurement transaction is being paid. If not controlled, it may be exploited to the detriment of the GOU funds.
- i) Micro procurements are conducted outside the Internal Procurement System. Some entity procurements did not pass

through the procurement system as a number of micro procurements were recorded as staff advances, for instance the purchase of fuel, computer accessories, carpets, cutlery, vehicle maintenance etc. implying that the entity is non-compliant with the procurement law (Compliance Analysis).

- j) Staff names set up as procurement suppliers in the IFMS is irregular: Recording of employees as suppliers does not comply with best practice besides the procurement transactions do not seem to go through the established procurement structural system and norms.
- k) Inadequacy in procurement categorisation: Observed amongst the top 10 was the existence of the Miscellaneous and Other Expenses category, which is not a common standard procurement categorisation. Furthermore, *Allowance* is another categorisation that may highlight inadequacy in procurement recording and mischarging.
- l) Mischarges and non alignment of spend to GoU Chart of Account: The mis-charges distort category analysis and besides some are a result of advances to staff which bypass the formal procurement system. The fact that the *Miscellaneous Other Expenses*; had over UGX 30 billion as observed in one entity, and yet when scrutinized, the description of payments made from this account item is procurement calls for proper recording and reporting.
- m) Common suppliers across the five government entities: Common suppliers were observed for the supply of construction, vehicles, airtickets, and fuel. However, due to time limitation, we could not establish the unit prices to ascertain whether the entities were being charged similar prices

## 6.7. Recommendations

Government should:

- a) Require all entities to prepare an entity procurement strategy document, which ideally has a section for spend analysis: The choice of the procurement method, framework contract, reservation schemes, use of small and medium scale enterprises or any other strategic procurement decision should largely be informed by the spend patterns, supply possibilities

and product category profiles, all of which originate from a spend analysis exercise.

- b) Standardize categorization of procurement spend: Explore the opportunity for standard categorization of procurement spend and ensure that even if the account charged is different (for purposes of payment), the actual product acquired/bought is well described or coded in accordance with subject of the procurement. This involves a standardization of procurement categories or coding of products acquired based on procurement terminology and standardizes the classification/coding of suppliers.
- c) Automate procurement process and consolidate invoices, category and suppliers: Explore the opportunity for process automation, invoice consolidation, category consolidation and supplier consolidation.
- d) Comprehensive recording and reporting on supplier data: Ensure IFMS captures/records name of the supplier to enable extraction of procurement spend data.
- e) Adhere to the procurement legal and regulatory framework: Ensure micro-procurements are processed through the procurement system to capture spend data and /or use framework contracts to reduce the volume of invoices processed by reducing the number of micro procurement transaction costs and processing time.
- f) Establish a regular invoicing cycle with suppliers: Ensure invoicing of suppliers on a monthly or quarterly basis in order to reduce on the number of invoices and deliver benefits to both agencies and suppliers.
- g) Decentralize supplier master data maintenance to a respective PU: Facilitate the empowerment of the procurement function through the Procurement Unit to maintain their entity specific automated data depicting useful fields/categorization of procurement transactions. Ensure the coding of suppliers in IFMS is controlled by the PU through user rights for entering the supplier data and avoid duplication of supplier names and possible exploitation of the system.

- h) Review and de activate duplicate suppliers on the IFMS: Undertake a comprehensive review and cleanup of IFMS supplier data, deactivation of duplicate data, ensure mandatory capturing of the supplier TIN and other key procurement information.
- i) Establish a robust centralized spend data management system: The finance units should work closely with the procurement units of an entity to ensure the relevant fields for both functions are centrally captured on the IFMS.
- j) Align procurement monthly reporting to approved procurement plan: Ensure that each entity prepares a comprehensive monthly procurement report against approved plans and actual spend data.
- k) Institute collaborative procurement of common user items: Explore the possibility of cooperating with other entities in procurement of items such as construction, fuel, vehicles, repairs and maintenance, car servicing, tyres, adverts, and air-tickets.
- l) Enhance knowledge and skills in public procurement system: Continuous professional development and capacity building on public procurement system, law, practices and principles for effective and efficiency in public expenditure management across GoU entities and stakeholders.

## **VII. CONCLUSION**

The underlying rationale for a spend analysis project is to gain a clearer understanding of an organization's procurement-related expenditure and how it might be managed better. Using detailed spend information as a basis for discussion makes it much easier to have informed discussions with suppliers and stakeholders, to influence and change behavior, and to deliver savings and efficiencies.

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### REFERENCES

- Dumont, R. (2014). "Purchasing Category Management in Practice. Mapping the Current State in Swedish Manufacturing MNCs." (Working Paper). Gothenburg, Sweden: Department of Technology Management and Economics Division of Operations Management Chalmers University of Technology
- CIPS and NIGP (2012). "Spend Analysis: Principles and Practice of Public Procurement". Herndon, VA: National Institute of Governmental Purchasing, Inc.
- Kamf, C. (2009). *Structured Spend Analysis Integrated Requirements from the Business and Operations*. (Master Thesis). Lund, Sweden: Lund University
- Knight, L., Harland, C., Telgen, J., Thai, K., Callender, G., & McKen, K. (Eds.). (2007). *Public Procurement: International Cases and Commentary*. NY: Routledge.
- National Institute for Governmental Purchasing, Inc. (2015). "The Strategic Value of Procurement in Public Entities." Herndon, VA: The Institute of Public Procurement.
- Organisation for Economic Cooperation Development (2017). "Government at Glance: Public Procurement, 2017 Edition." [Online]. Available at <https://stats.oecd.org/Index.aspx?QueryId=78413>. (Accessed on July 3, 2018).
- Telgen, J. (1999). *Inkoopcontrol graadmeter voor verbeteringen. Rendement*.
- Thai, K. V. (2019). "Introduction." In K. V. Thai, F. A. Mwakibinga, & S. Paul (Eds.), *Advancing Public Procurement: Theories and Practices* (pp. 1-19). Boca Raton, FL: PrAcademics Press.
- Asch, V.G.C.A (2016), *Identifying Interesting Packages: A Spend Analysis Tool*. (Thesis). Twente, The Netherlands: University of Twente.

- Telgen J. (2004) Purchasing Control, Compliance and the Box: Purchasing Management Based on Hard Data. [Online]. Available at <https://www.researchgate.net/publication/302517245>.
- U.S. Government Accountability Office (2004). *Best Practices Using Spend Analysis to Help Agencies Take a More Strategic Approach to Procurement*. Washington, DC: Author.
- World Bank (2018). World Bank Development Indicators: Popular Indicators. [Online]. Available at <http://databank.worldbank.org/data/indicator/NY.GDP.MKTP.CD/1ff4a498/Popular-Indicators>