Implications of Information Load on Fiscal Decentralization Delivery in Government Aided Primary Schools in Uganda

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Abstract

Purpose: The study explores the importance of information load in enhancing Fiscal Decentralization delivery in Government Aided Primary Schools in Busoga sub region, Eastern Uganda. The study is occasioned by availability of not so many empirical studies in many developing countries such as Uganda. The major objectives of this study are to establish the relationship between information load and Fiscal Decentralization in Busoga Sub region Government Aided Primary Schools in eastern Uganda.

Methodology: This study adopted a cross sectional design under a quantitative and qualitative methods. Data collection was done on a sample of 314, respondents. The data was analyzed using multiple regression and confirmatory factor analysis using Amos. Findings: The findings of the study indicate that the association is positive and significant which means the information load improves Fiscal Decentralization delivery. Unique contribution to the theory, practice and policy: It is therefore noted that many public schools face significant challenges in the management of fiscal resources, as such it is recommended that the Central Government streamlines communication and availability of information to the lowest accounting officers (Headteachers), such that there is prompt information availability in form of circulars using traditional media, organize regional meetings/workshops to disseminate information every quarter on release of funds to government institutions.

Keywords: Fiscal decentralization delivery, information load, lowest accounting officers, Government aided primary schools

1. Introduction

The inception of Fiscal Decentralization in the early 1990s in Uganda instilled a lot of hope in the people where the government introduced fiscal reforms in which managements of revenue was left to the subnational government at the Lower level. By giving the lower unit fiscal autonomy, it was hoped that there would be a lot of improvement in Revenue collection and service delivery (Kituyi, et al, 2014). Under the said strategy, there is greater financial autonomy where the centre disburses funds in form of transfers to the lower units namely districts, sub counties, schools for service delivery and also allows such entities the autonomy to collect and expand resources as stipulated in set guidelines.

However, while the move to transfers funds to lower units was welcomed by many stakeholders especially in Education sector, the implementation of the said strategy has faced several impediments after a public expenditure tracking survey study revealed that several schools in the Uganda in the year 1995 received only 22% of their intended transfers for non-wage expenditure and bulk of funds was captured by Higher District Leadership because non availability of information on fiscal transfers (Reinikka & Jakob Svensson , 2005). Research indicates that information load is a critical aspect in workplaces and affects organizational productivity and hence fiscal decentralization (Dean & Webb, 2011; Azfar et al, 2001), they all emphasized the importance of information as a means to achieve effective service delivery. Suffice to note, there has been a scarcity of empirical studies directly explaining the importance of information Load on Fiscal decentralization delivery in Uganda's Government Aided Primary Schools. Hence this study will further extend the boundaries of knowledge on the subject matter.

Theoretically, information Load and Fiscal Decentralization will be under pinned by the systems theory which argues that organizations are made up of interrelated substructures and sub systems which affects work interdependently to sustain the entire system (Gruning, &Dozier, 2002).

It explains that for these parts to sustain the function of the entire organization there must be information

exchange, feedback and interdependent which are fundamental to the communication theory (Miller 2003). It should be noted that under decentralization, the Local Government Structures and Departments are interdependent sub national units created to enhance service delivery (Tabira & Okao 2010). However for these services to be delivered well, the Central Government does a lot communication and information exchange through issuance of guidelines, circular standing instructions to the lower units to implement accordingly (MoES, 2018).

A case in point is that between 1995 – 2012, the government of Uganda through the Ministry of Finance launched an extensive information campaign publishing all intergovernmental transfers in newspapers to check an earlier on report which indicated that schools were only receiving 22% of the intended transfers from districts local governments as a result a subsequent study indicated that because of availability of information to all stakeholders through publication of transfers, remittance moved to over 80% of non-wage transfers by the intended beneficiaries (Reinikka & Svensson, (2004 (a)(2005). To this extent, therefore, information load impacts on Fiscal decentralization delivery as explained by the systems theory.

2.0 Literature Review And Hypothesis Development

This section presents a literature review on the linkage between information load and fiscal decentralization plus consequently the hypothesis of the study derived.

2.1 Information load and fiscal decentralization

Of recent times, information load has become an exciting field of study coming against the backdrop of the invention of the world wide web, internet, and the social media applications (Benselin & Rag Schell, 2015). Studies indicate that the information load has positive outcomes that affect people and their employing organizations in work places. In fact, it leads to decline in employee and organizational productivity dampening of creativity and creation of unhappy workers (Dean & webb, 2011).

It has been estimated that the losses arising directly or indirectly from information overload are estimated at about 650 billion worldwide each year according to a study by (Lohr,2007) .From the above explanation, we can comfortably infer that insufficient information affects fiscal management generally and fiscal decentralization in our instant case.

Another study by Nangoli, et al, (2015) report on the impact of fiscal decentralization on revenue performance in LDCs a case of Uganda. In their study, 600 respondents were asked and based on their views, there is an indication that there a positive effect of fiscal decentralization on Revenue Performance. In the study the assessment is based on report derived from the recipients of the services, which in away is an indicator of a feedback mechanism a form of information exchange. To this extent, there would be a possibility for a relevant relationship between information load and fiscal decentralization only that this specific study did not test for the direct relationship between these constructs that the current study considered in greater depth.

In a related development, Reinikka & Svensson (2005) in his study the power of information; evidence from a newspaper campaign in Uganda explains the relevancy of people accessing information as an effective way of increasing Local Accountability, wherein he found that schools received 22% of their intended transfers for non-wage expenditure and the bulk of funds was captured by Local District Leadership, and that arising from his report, government adopted a new information campaign where it publishes intergovernmental transfers in newspapers and notice board leading to increased remittance of central transfers to over 80%. The said study shows that there is empirical relationship, in that when the Accounting Officers/headteachers have sufficient information   regarding their fiscal entitlements from Central Government, they are able to agitate and question the status quo leading to increased transfers (funds from the centre in that regard, it's evident that information load impacts on fiscal decentralization delivery in Government Aided Primary Schools.

Azfar et al (2001) in their study, condition for effective decentralization governance have emphasized the importance of source of information as being paramount, asserting that citizens prefer to obtain information on local issues from local leaders. The study revealed important aspects of information flow which can be expected to exert a major influence on the quality of governance and service delivery saying citizen in both Uganda and Philippines rely substantially on community leaders rather than the media for information. The study bring out credible apparent weakness like citizen information access to the quality of education. Notably in the study regarding decentralized governments, the flow of information from government to their constituencies particularly outside major urban centers rise a possibility of government captured by local elites, with potentially harmful consequences on governance of public service delivery.

The above study though brings in the aspect of information flow departs from our instant study which emphasizes information load as a major pre-requisite to improve fiscal decentralization in Uganda's Government Aided Primary School, the former compares effective decentralization in Uganda & Philipines looking at the conditions under which decentralization governances proves effective as compared to centralized governance but on the manner and condition in which it is undertaken.

In a similar study by Marcusohn,(1995), it is observed that current inventions, creativities & innovations are under a situation where people are assailed a lot of information quite instantly and faster than it can be processed leading to inability of people to cope with arising amount of information (chan, 2001). However, the above studies did not any way relate with fiscal decentralization, as it concentrates an aspect of information load yet the current study examines the direct impact of information load on fiscal decentralization delivery in Government Aided Primary Schools in Busoga Sub region, Eastern

Uganda. However, all these possible relationships are not the result of a direct study that tested for the relationship between information load and fiscal decentralization, this is because they continue to be derivatives of studies that had alternative objectives. To this extent, it was possible to hypothesize that, H1 , Information load is significantly and positively related to fiscal decentralization .

3.0 Methods

The study adopted a quantitative research design strategy as suggested by Creswell (2014). According, to the higher local government statistical abstract 2013, there were over 1462 headteachers in Busoga Sub region (10 districts). Based on the guidance by Yamane (1967) the population of the required sample size was 314. This was obtained from 1462 total primary headteachers in Eastern Uganda using sample random sampling and the lottery methods in which cases were selected after replacement. In order to select the sample elements, sampling frames which were lists of lead teachers selected were obtained from the human resource departments of the selected district local governments in Eastern Uganda. From the ten (10) districts, we used sample random sampling techniques where a group of subjects (samples) were selected per study from a bigger group each having equal chance of being chosen during sampling process (Davis, Gallardo & Lachlan, 2012) hence total population of headteachers divided by grand total of headteachers in the Busoga sub region multiplied by determined sample size.

This resulted into distribution of 314 questionnaires in total. At the end, we were able to collect 300 questionnaires after data cleaning 87 questionnaires were eliminated because of incomplete answers and a remainder of 233 questionnaires was used for analysis. The questionnaire consisted of two parts. The first part was about demographic characteristics, regarding the respondents\ durations in service, age, group, sex, marital status and qualification. The study variables were operationalized based on earlier scholarly scales. The two variable that were examined are information level, and fiscal decentralization. All the items were anchored on a five point Likert scale which ranged from 1 strongly disagree to 5 strongly agree (likert, 1932).

Data were entered and analyzed using SPSS version 22 & Amos 23. We checked and managed data entry errors and missing values.

A missing completely at random (MCAR test) was performed to determine the percentage of missing values in the data set. MCAR test results indicate that data was missing completely at random. Imputation of missing values was performed using the linear interpolation methods. We tried to manage common methods bias using procedural methods as advocated for Podsakoff et al (2012). The study equally tested

for the reliability of all the measurement scales using Cronbach alpha Coefficient and none of the constructs had a cutoff point of less that 0.70 (Nunanally, 1978).

Table 1: Reliability and validity of the Measurement Scales

Study Variables	A	CR	AVE
Information Load	.721	.724	.48
Fiscal Decentralisation	.842	.853	.48

Source: Primary data

The study equally determined the content validity of the measurement items. This was done by a team of experts.

The experts were: three professors from the Public Administration and human resource management. The results indicate that none of the constructs had a content validity index of less than 0.70 as summarized in Table 1 above.

Factor analysis was performed to identify the patterns in data and to compress data to a controllable level (Field, 2005; Hair et al 1998). Using Principal component analysis, only those factors with an Eigen value greater that 1 were retained (Guttman – Kaiser rule). The Kaiser – Meyer – Olkin (KMO) and Bartlett's (1954) test of sampling adequacy was computed to ensure that factor analysis yielded distinct and reliable factors (Kaiser, 1974). The following criteria were used to determine the sampling adequacy (Kaiser, 1974): 0.90= Marveleous; 0.80= Meritorious; 0.70= Middling; 0.60= Mediocre; 0.50= Miserable and below 0.50; unacceptable. The KMO for these study variables ranged between 0.89 and 0.98 and as such, ranged between meritorious and marvelous. Equally, it is only items with communalities of 0.60 and above that were retained.

Results from the exploratory factor analysis yielded varying factors: for instance, Fiscal Decentralization Based KMO Criterion, four factors were extracted. These were prompt information flow, resource proposition capacity building and need based expenditure of the total variance comprised for four factors was 62.175%.

In order to determine the construct validity of the study variables, the following analyses were carried out: Chi-square, DF, GFA, P. Value. CFI, IFI, NFI, NFI, TLI, and RMSEA. Relatedly to determine the relationship between the variables of the study:

Inter Fiscal decentralization and information load, the Pearson correlation analysis was run, and to further determine the influence of the variables on each other, linear regression analysis was used. In addition, structural equation modeling was used to test the fit of the research model. Below are the confirmatory factor analysis results for the variable of the study.

3.1 Measurement Models (CFA) of the Study Constructs

Since the constructs are not directly observed (James et al. 2006), there was need to specify a measurement model for each study variable. furthermore, the measurement model is essential because it provides thorough testing for the reliability and validity of the scales employed to measure the latent constructs and their manifest variables (Loehlin, 1998). Note that for the measurement model to be reliable the Croanbach's alpha (a>0.7) and composite Reliability (CR>0.70) Convergent validity is measured by Average Variance Extracted (AVE) which should be (AVE>0.5). According to Henseler et al., (2015) and Hair et al, (20101), discriminant validity ensures that a construct measure is empirically unique and represents phenomena of interest that other measures in a structural equation model do not capture. Discriminant validity to exist, the square root of AVE should be greater than the values of correlation between the respective constructs (Fornell, & Bookstein, 1982). It is important to note that the entire variable met this criterion. Below is a report of the confirmatory factor analyses of each study variable.
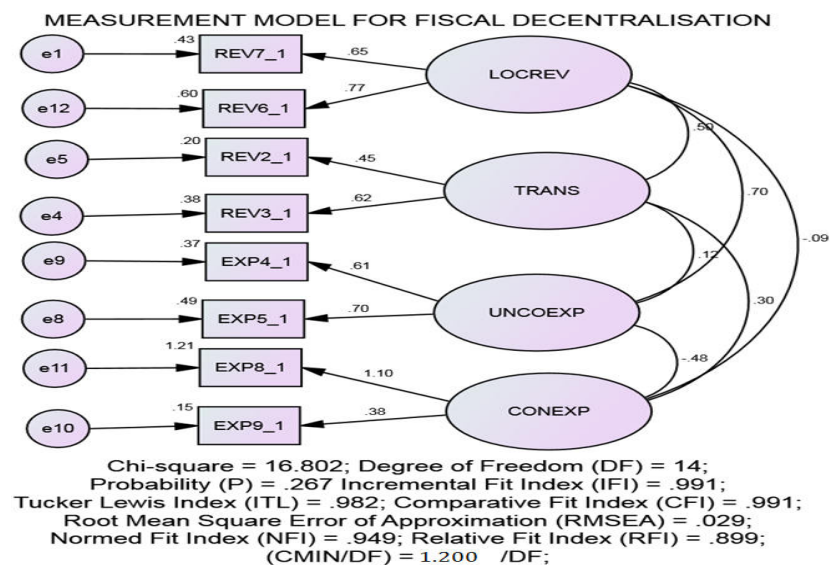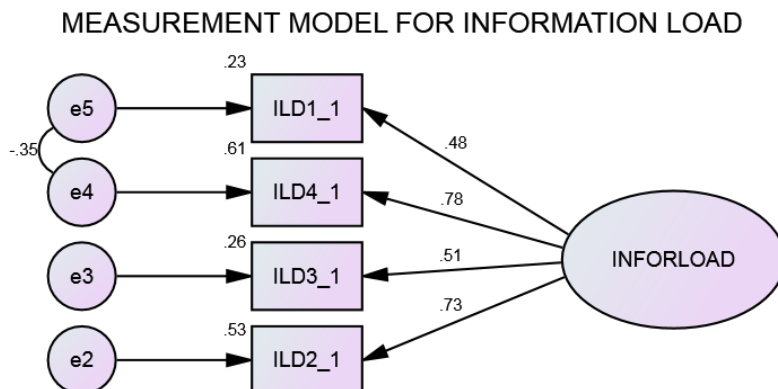

Figure 1 Measurement Model of Fiscal Decentralization

AMOS software was used to assess the relevance of the various indicator variables at explaininthem latent variable called Fiscal decentralisation. The dimensions of fiscal decentralisation are: Revenue(REV),Expenditure(EXP),LOCREV(Local Revenue), Revenue transfers(Trans),Un conditional Expenditure(UN CON EXP),Conditional expenditure(CON EXP).The model results indicate that LOCREV(Local Revenue), retained two items which had outer model loadings above 0.700 and these ranged from 0.73 to o.70 and these ranged from 0.75 to 0.80. Revenue transfer (TRANS) retained two items and these equally had loadings above 0.70 and they ranged from 0.73 to 0.82, Unconditional expenditure (UNCON-EXP) retained two factors loading from 0.61 to 0.70, Conditional Expenditure(CON-EXP) also retained two factors loading from 0.65 to .75 The detailed model is as above

MEASUREMENT MODEL FOR INFORMATION LOAD

Chi-square = .026; Degree of Freedom (DF) = 1;
Probability (P) = .871 Incremental Fit Index (IFI) = 1.006;
Tucker Lewis Index (ITL) = 1.035; Comparative Fit Index (CFI) = 1.000;
Root Mean Square Error of Approximation (RMSEA) = .000;
Normed Fit Index (NFI) = 1.000; Relative Fit Index (RFI) = .999;
(CMIN/DF) = .026/DF;

Figure 2 The Measurement Model of Information Load

AMOS software was to assess the relevance of the various indicator variables at explain the latent variable called information load. Information load (IL) retained four items which had outer model loading above.

Based on the CFA results in Fig: 01 above; the four separate factors of the hypothesized model were moderately corrected. All indicate desirable internal consistency attributes for all of the subscales (shore et al, 2010; Hair et al., 2010). Confirmatory factor analysis was used to load each summated factor onto ,its respective latent factor and the intercorrelations among these latent factors were examined clearly and it is here in stated that each manifest (measured) factor is theoretically relevant. This outer model loading results were further summarized in the table:4, below for the propose of relaying clarity of the fitness of the model.

Results in the table above, indicates that four dimensions were retained by the measurement model of I. These are: ILD1, ILD2, ILD3, ILD4 . It is also clear that the entire dimension adopted in this information load model were reliable since they obtained the composite reliability and cronbachs alpha values more than 0.7

Results in the table above, indicates that four dimensions were retained by the measurement model of organizational citizenship behavior. There are information load1, information load2, information load3, information load4. It is also clear that all the dimensions that were retained in this information load model are reliable since they obtained the Composite Reliability and Cronbach's Alpha Values of more than 0.7. In order to subject the data to further statistical tests such as correlation and regression, we had to determine the extent to which it conformed to parametric assumptions. After a careful analysis, it was determined that the data was in conformity with the parametric assumptions in terms of; linearity, normality, homogeneity of variance and multicollinearity as recommended by (Field, 2013).

4.0 Results

In this section, we present the correlation and regression results that were performed.

4.1 Zero Order Correlations

Table 2 below, presents means, standard Deviations (SD) and Zero Order Correlations of the study constructs. The study established a significant positive relationship between Inter fiscal Decentralization and Information Load. (r = .366, p< 0.01(. This means that the more |information available, the more information is availed to accounting Officer there is visible improvements in fiscal decentralization within government Aided Primary Schools.

Table: 2 Showing Means standard deviation (SD) and Zero Order Correlation

Correlations

	Mean	S. D	1	2	3	4	5	6
Gender (1)	1.3405	0.47388	1					
Age (2)	3.5708	0.68570	-0.044	1				
Qualification (3)	4.6180	0.56859	-0.017	.186**	1			
Tenure (4)	2.7468	0.80425	-0.007	.435**	.297**	1		
Information Load (5)	3.5815	0.64478	0.105	.136*	-0.015	-0.027	1	
Fiscal Decentralisation (6)	3.8155	0.63713	-0.002	.147*	0.003	0.007	.366**	1

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

4.2 Regression Result

In order to determine the potential of information load to predict fiscal decentralization delivery, there was need to perform a regression analysis. This produces the following result.

The extent to which information load predict fiscal decentralization.

Table 3 and figure 3 below, show the standardized regression weights, standard error, critical ratios and the probability values between the study constructs. Consistent with H1 the study finds that information load is a significant predictor of fiscal decentralization delivery .This means that when information load given priority it improves the standard deviation; fiscal centralization also significantly improves (.212standard deviations}

This further means that the more head teachers are open minded and provided with information on funds, the more they will be able to spend and improve on fiscal decentralization hence improvement of education services.

Table 3: Showing Standardized Regression Weights

Hypothesised Path			Estimate Standardized β coefficient	S.E.	C.R.	P
Fiscal Decentralisation	<---	Information Load	.353	.081	4.358	***
Fiscal Decentralisation	<---	Tenure	-.032	.076	.421	
Fiscal Decentralisation	<---	Qualification	-.004	.070	.57	
Fiscal Decentralisation	<---	Age	.112	.072	1.556	

STRUCTURAL EQUATION MODEL FOR FISCAL DECENTRALISATION
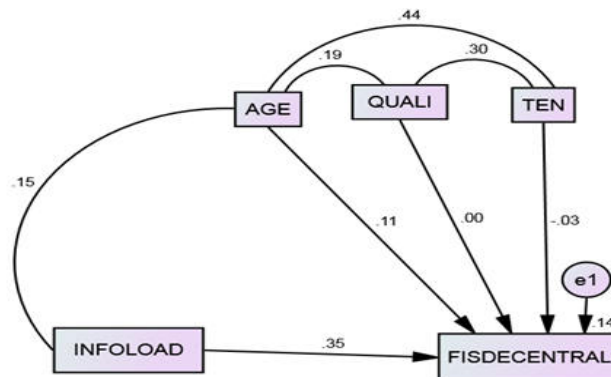
Chi-square = .175; Degree of Freedom (DF) = 2;
Probability (P) = .916 Incremental Fit Index (IFI) = 1.016;
Tucker Lewis Index (ITL) = 1.088; Comparative Fit Index (CFI) = 1.000;
Root Mean Square Error of Approximation (RMSEA) = .000;
Normed Fit Index (NFI) = .998; Relative Fit Index (RFI) = .992;
(CMIN/DF) = .088 /DF;

Fig 3: Showing SEM Model Showing Relationship between Information Load and Fiscal Decentralization.

Fig 3: Showing SEM Model Showing Relationship between Information Load and Fiscal Decentralization.

From the final model illustrated in FIG3 above, we can infer that after information load with fiscal decentralization together with other control variables namely, gender, age. Qualification, tenure, information load, loaded higher with.35, age at 0.44 while the rest of the items had insignificant loadings. In summary there is a marked significant relationship between information load with fiscal decentralization and that the factor of age impacts on good performance under fiscal decentralization as per illustrated high load.

5.0 Discussion

The major objective sought is our study is to establish the effect of information load on Fiscal Decentralization. Correction and regression analysis results presented in the table above, indicated that the Association between information load and Fiscal Decentralization is positive and significant (r=0.366, < 0.01). This signifies that changes in Fiscal Decentralization are brought about by the availability of information. This implies that information load improves Fiscal Decentralization. This finding is consistent with the instructions of government in recent circulars (MOES,2018 and MOES,2000;Rho,2009) guidelines on management and use of school facilities grant and other studies who emphasized providing information to stakeholders during fiscal decentralization implementation.

The existence of these finding in the study sample could be attributed to the leaders follower relationship that allow subordinates to make suggestion to other superior on issues of Fiscal Decentralization such as work stations have to improve in a bid to offer qualify education services to the public. From the above analysis, using hierarchical multiple regression, we derive the main hypothesis as if information load is significantly and positively related to fiscal decentralization" using hierarchical multiple regression information load variable was entered and this model was sluggishly significant at (0.366 CR= 4.358; P<000) implying that the access to information load explains 37% of variances in scale decentralization . This means that there is a positive and significant relationship between information load and fiscal decentralization among the samples of local teachers in Eastern Uganda. As said Hypotheses 1 that states that there is a positive and significant relationship between information load and fiscal decentralization is supported. The relationship is further supported by the following qualitative responses;

As a dimension of information load, respondents provided information to the extent that schools inspector notify and furnish schools with their inspection programme just as this respondent stated;

"First of all, things have changed, inspecting is not like before, when inspectors used to come to schools without knowledge of the head teacher, goes around, performs his duties and later makes recommendations to the school.

Today, inspectors and head teachers are in connection and always first communicate the programme of their visit to school heads so that even when there are mistakes on miss allocation of government funds, miss appropriation, they can have time to do all what it can to pretend to be perfect and only take the inspector through projects which are free from bias. So these people connive and to hide access to right information and make the school lose and lag behind in development''.

Relatedly, another respondent confirmed that information regarding matters related to school fiscal revenue is often communicated in school fora's and had this to say;

''Yes, am aware of extra revenue collection at school together with my fellow members of the school management committee. They include board of governors, and parents. These are communicated during meetings to help us improve life of pupils at school. It's also inform of additional school uniforms and sweater charges, feedings especially contributions on posho for porridge depending on the circumstance''

Reinikka&Svenson, 2005's Study on the power of information; evidence from a newspaper campaign In Uganda whose finding in his study was to the effect that schools were receiving only 22% of the intended transfers for non-wage expenditure and the bulk of funds remained/ was captured by top district official because of not having passed information regarding released funds is relevant. Arising from the said report, government of Uganda through the ministry of finance lunched a new campaign where the channel of communication changed to quarterly publication of all released funds in all major newspapers leading to increased remittance of up to 90% of the transfers to schools. This study is in tandem with study findings that access to communication channels improves fiscal decentralization in government aided primary schools

6.0 Conclusions, Implications And Recommendations

On basis of the afore going findings about the study hypothesis, it can be deduced that information load affects fiscal decentralization in government aided primary schools. This means that proper information load enhances fiscal decentralization significantly.

6.1 Theoretical implications

Overall, the systems theory (MCclreath, 1993) is still relevant in explaining the relationship between fiscal decentralization and information load. This is because according to the study findings that availability of information is emphasized in implementing fiscal decentralization at the lower level of service delivery where the information is relayed to interdependent organs to sustain the system .in this case the responsible officer (permanent secretary) makes such direction through circulars to the district respective officers who in turn relay the instructions on fiscal management of funds such as school facilities grant to the head teachers then to ordinary teacher..

6.2 Policy Implications

There is need for policy makers to appreciate the importance of communication and information in management practice. Manager spend a lot of time of their work engaged in communication and information is a important component of key decisions by government (Reinika&Svenson,2005).it is therefore important to include the information dissemination component in the formulation of policy to improve fiscal decentralization in government aided schools in Uganda .

6.3 Limitations and suggestion for future studies

This study was purely cross sectional in nature because the data was collected at a particular point in time. However, fiscal decentralization policy is one which has been evolving over time, as such there is need for future scholars to undertake a longitudinal study so that we are be able to track its progress over a long period of time.

6.4 Recommendations

It is recommended that central government should embed communication component in all upcoming projects and programme under implementation. This calls for establishment an appropriate communication strategy at lower levels of service delivery the respective ministry should budget to establish call Centers, organize routine meetings, workshops using new social media platforms' such as what up, twitter among others to successfully implement fiscal decentralization in Uganda's government aided primary schools.

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