IMPACT OF CAPITATION TRANSFERS ON SCHOOL PERFORMANCE IN KENYA: A CASE OF PRIMARY SCHOOLS IN NORTH HORR SUB – COUNTY

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ABSTRACT

In developing countries, access to education has increased considerably over the last 20 years, with many more children, particularly underprivileged children, entering school earlier and staying in school longer than ever before. This is been attributed by among others the governments support through capitation transfers. Capitation grant is a basic educational finance strategy that is utilized in many countries to provide financial resources to public institutions. The objective of the study was to determine the impact of capitation transfers on the performance of primary schools in North Horr Sub-county. The predictor variables in the study were the reliability, timeliness and the adequacy of the cash transfers. On the other hand, the control variables were teacher competency and the school size as measured by the learners' population. The results suggest that the timeliness of the cash transfer to schools was also not on time since on average, the cumulative number of days that the government delayed in disbursing cash over the year was 87 days though the delayed period in the three terms in an academic calendar was constant in between the terms. Further, the amount disbursed over the period was not meeting the stipulated policy since only around 92.4% of the expected amount in a given year was achieved. The inferential results show that the performance of the primary schools is affected by the variables under investigation to an extent of 12.5%. This finding suggests that other factors that determine school performance explain 87.5% of the variable. The study concludes that there is evidence from the fact that as the timeliness, adequacy and the reliability of the funds declined in the period, so did the performance. In addition, the study concludes that matching the school resources to the increase in student enrolment has a direct impact on the performance of the primary schools. Hence the study recommends that capitation grant disbursement pattern be reviewed with a view to determining whether the existing arrangement is conducive to improving education outcomes in Kenya. The study further recommends that a comparison study be undertaken to assess primary schools' performance in urban areas and those considered as hardship regions with a view to establishing the influence of capitation transfers.

Key words: Capitation transfers, School performance, education financing.

INTRODUCTION

Over the last 20 years, the number of children that access education in developing countries has risen dramatically, with many more children, particularly those from low-income households, enrolling and remaining in school for longer period of time than ever before (World Bank, 2019). Through bolder, quicker, and scaled-up policies, more developing Nations are working to preserve and enhance the renewed momentum toward Universal Primary Education (UPE) by employing different strategies, with greater financial resources investment being one of them. Since the early 2000s, global public spending on basic education has more than quadrupled in real terms with the low-income nations registering the highest increases, with public education spending as a percentage of GDP rising from 3.5 percent in 1998-2001 to 4.1 percent in 2014-2017 (Al-Samarri, Cerdan-Infantes, & Lehe, 2019). Abolition of school fees is becoming more widely recognized as one of these initiatives and a critical step toward ensuring children's right to education. In response, the World Bank and UNICEF formed the School Fee Abolition Initiative (SFAI) in 2005, with the goal of disseminating lessons learned from countries that have abolished fees and providing context-specific recommendations to nations that are considering adopting such policies.

Despite greater funding and access, many countries are nevertheless experiencing a learning crisis. According to Azevedo, Goldemberg, and Stacy (2021), 53% of all 10-year-old children worldwide are unable to read a short age-appropriate text with understanding in the developing countries. This is partly attributed to poverty levels that stands in some regions of Africa at 90% (World Bank, 2019). Large expenditure inequities and inefficiencies hinder the efficacy of education finance, according to research from many countries and which eventually affect performance of the school going children. Addressing the dual finance issues of insufficient and ineffective expenditure might help to tackle the issue of learning crisis and contribute to the accomplishment of national and international education goals and targets set for a specific period. Due to the importance placed on the financing education world over and in the quest to achieve the universal primary education, different theories have been advanced and applied in order to achieve the goal.

The Agency theory, systems theory and performance equations were used in this research. The agency theory shows that owners or lenders of funds need to put in place mechanisms aimed at protecting their interest against actions of the agents (Jensen & Meckling, 1976), which in this case would be school administrators. According to System Theory (Ludwig Von Bertalanffy, 1956), a structured company does not exist in a vacuum; it is dependent on the environment in which it is founded. As a result, in the current context, capitation transfers are one of the inputs that enables schools to provide teaching, learning, and administration services, and their output is measured by the availability of teachers, textbooks, and classrooms, as well as the results of national examinations. Joshi (2009) proposed the Performance Equation Theory, which states that among other factors, resource availability, motivation and ability to perform a given task are specific factors that determine the degree of performance. Stakeholders in education must efficiently organize resources in order to address the growing requirements of their institutions with a view to reducing possible challenges to the provision of education for all.

In most nations, the education sector faces several obstacles, including a shortage of qualified instructors, inadequate teaching and learning facilities, and insufficient infrastructure. As in Kenya, the current level of enrolment has prompted the construction of additional facilities to accommodate the growing enrolment and to achieve this goal, there is need to effectively mobilize resource to address these issues. The Kenya government financial support to both primary and secondary schools come in form of capitation transfers which is pecked on the number of children that are enrolled in the particular education institution. Government support helps in financing different projects within the schools which would have otherwise been bridged by parents - a move that would have resulted in the drop of children enrolment in the schools.

In the pastoralist communities such as in the North- Horr Sub-County, Marsabit County, the performance of children in both primary and secondary schools is determined by both socio-cultural factors, financial support to the schools and student characteristics. Chief among the determinants has been a low financial support from the government due to lower capitation amount and reliability of the same. Primary schools in the sub-county require adequate funding to support their school feeding programs and infrastructure development. Since the year 2003, the Kenya government has been extending financial support to all the primary schools in the North Horr Sub-County at the rate of Ksh 1,420 per pupil towards supporting the FPE program. For the three financial years to 2020/2021, the total government disbursement has increased to Ksh 12.7 billion from Ksh 12.4 billion. Though other performance measures, such as Primary Completion Rate has increased from 82.5% in 2016 to 86.2% in 2020, the academic performance change as a result of the government financial capitation support has not been explored. It is therefore the intention of this research to try and establish how the capitation transfers to primary school has impacted on the performance of the schools.

Capitation Transfers

The central government distributes a fixed amount of money to schools within predetermined time frame during the school calendar year depending on the number of registered learners in each school. Capitation grant is a basic educational finance strategy that is utilized in many countries to provide financial resources to public institutions (Ngowi, 2015). The funds are utilized to cover the costs of teaching, learning, and administration; and to guarantee fairness, capitation grants are distributed to schools depending on the number of pupils enrolled or other formulae in different countries (Mzee, 2015). In Kenya, the government deposits capitation funds directly into the bank accounts of all schools at predetermined periods during the school year. It is computed at KSh 1,200 per year for each enrolled student in a school from pre-primary to grade eight (Ministry of Education 2020) and this means that it is critical that the transfers occur at the required intervals and in a timely way so that schools can cover their expenditures and offer service on timely basis. The funds are used to provide timely teaching, learning, and administrative services throughout the school year in order to ensure the school's overall success.

The capitation grant is intended to ensure that teaching and learning materials (TLM) are available in schools, but this goal may not be realized if effective and well-regulated structures to allocate, disburse, spend, and monitor grant funds are not in place (Ezigbo, 2019). The allocation of funds

must be published and open to public scrutiny as part of the full devolution of financial responsibilities to schools. Furthermore, school budgets and financial outlays must be accessible to parents and other community members interested in school matters.

The choice to replace school fees with capitation grants paid off in the 2019/2020 academic year, having a beneficial impact on enrolment in basic education (Ministry of Education, 2020). The following are some of the advantages that a MoE emphasizes: Gross enrolment in primary schools increased by approximately 10%, bringing total primary enrolment to 72.4 percent nationally. The primary net enrolment rate grew from 62% to 72%. Every area of the nation had an increase in enrolment, with the Northern Region (which had the lowest rates) seeing the highest increase. In the 2019/2020 academic year, enrolment in basic school climbed by 16.7% over the previous year. Girls' enrollment climbed somewhat higher than boys' (18.1 per cent vs. 15.3percent).

School Performance Scores

School performance refers to how well a student, instructor, or institution has reached their short and long-term educational goals (Ward, Howard & Murray-Ward, 1996). On the other hand, completion of educational milestones such as secondary school diplomas and bachelor's degrees is referred to as academic achievement while academic performance is a measure of a student's proficiency across a range of subjects (Chingos, 2018). Teachers and education officials frequently utilize classroom performance, graduation rates, and standardized test results to measure student achievement over a certain period of time.

Academic accomplishment is commonly quantified through tests or continuing evaluations, although there is no agreement on how to quantify it or which components are most important: declarative information such as facts or procedural knowledge such as abilities (Kaliba & Ghebreyesus, 2011). For a specific academic year or education cycle, a composite measure of academic success is generally the mean score of the learners' tests or assessments, which may subsequently be ascribed to a school, a class, or even a council. In Kenya, a school's examination score for a given year is the mean score of its Kenya Certificate of Primary Education (KCPE) examination class, and it is the most reliable indicator of performance available for that school in that academic year.

The link between Financing and Education Sector Objectives

Education has been at the forefront of decentralization changes, particularly basic education (Badara & Saidin, 2018). According to recent estimates, 84 percent of the world's children reside in regions where sub-national governments manage government primary and secondary schools. Given the fundamental role that sub-national governments play in education, how they employ public funds to address the dual financing concerns of sufficiency and effectiveness will be vital to their success. The proportion of students in primary and secondary school who leave with the skills they need to continue learning and lead productive lives will be determined in part by how efficiently schools are able to transform financial support into high-quality education services (Emerson, Nabatchi & Balogh, 2019). Although schools oversee and make decisions about how public education funds are

spent, they frequently rely on capitation fiscal transfers from the government, which account for nearly all of their revenue in Kenya, to offer quality services and improve access to education. The relationship is supported by the World Bank (2019) representation of how education finance system influences education system goals, as shown in Figure 1.1 below;

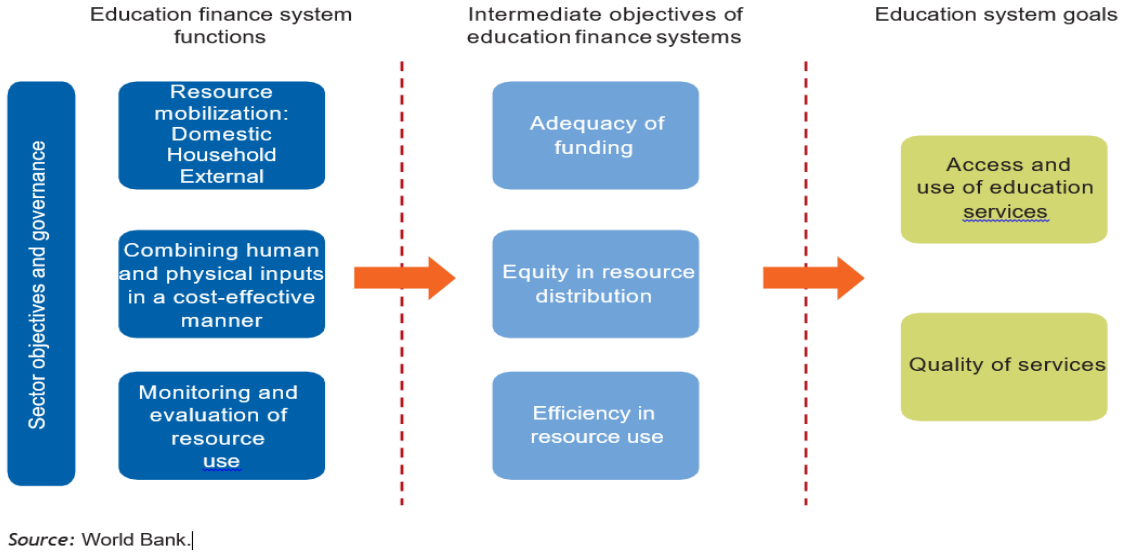

Figure 1: The link between financing and education sector objectives

Capitation transfers and School Performance Scores

Sub-optimal student performance is attributed by among others, unreliable government's unreliable and poor distribution of capitation payments to public elementary schools (Eweniyi, 2018). Capitation transfers by the government is used by the school administrators to cover the costs of teaching, learning, and administration expenses – more so in cases where parents payment is restricted or regulated. The investigation of the effect of capitation on the national examination performance has resulted in varied results. According to Osei et al. (2009), capitation transfers have had no effect on pass rates. On the other hand, Augustin (2016) argued that there is a significant positive relationship between capitation transfers and national examination scores. Sitati (2014) found that national academic performance was not impacted by capitation grant, a result that implies that the impact of capitation transfers on school national examination scores is mixed. This creates the need to investigate the impact of timely and reliable capitation transfers to schools on examination scores. Government financial support in terms of student capitation is critical especially in pastoralist communities that move from one point to another in search of pasture and water.

Primary Schools in North Horr

North Horr Sub County has a total of 24 public primary schools under the capitation transfers program by the national government (Duflo, Dupas& Kremer, 2020). Kenya's capitation transfer policy aims to ensure good learning infrastructure, adequacy of non-teaching members of staff, availability of learning materials as well as supplementary materials that will aid in the learning process. The learning materials in this regard are resources such as exercise books, text books, pens,

assessment tests and examination. This can only be achieved when there are enough funds to facilitate procurement of adequate stationary materials. In addition, capitation transfer policy in Kenya also spearheads for good sanitation and learning environment, enough space for meetings and capacity building, contingencies, science and applied technology, and ICT infrastructure materials (Ministry of Education, 2020).

Problem Statement

In developing countries, access to education has increased considerably over the last 20 years, with many more children, particularly underprivileged children, entering school earlier and staying in school longer than ever before (World Bank, 2019). These advancements have been aided by increased educational spending as evidenced by the global public education spending having doubled in real terms since the early 2000s. Low-income countries had the most dramatic increases, with public education spending rising from 3.5 percent of GDP in 2010–2020 to 4.1 percent in 2014–17 (Al-Samarrai, Cerdan-Infantes, & Lehe, 2019). The increased government spending, especially in junior schooling is out of the realization that a lack of parent financial financing is a key impediment to actualization of the education for all objectives.

Private schooling prices are a key obstacle that prevents many children from getting and finishing a decent basic education, according to experience in various Kenyan counties (KNBS, 2020). Since 2003 when the government introduces capitation transfers for primary schools in North Horr Sub County access, retention and completion rates have improved. However, the capitation transfers to schools have been dogged by delays and unpredictability in disbursement, making it hard for schools to plan and spend on teaching, learning and admin services to ensure proper functioning of the schools. Furthermore, there are some indicators that there may be an issue with budget leakage at the school level, resulting in funding not being used effectively by the school. Even if capitation funds are accessible at the school level, the capitation grant's potential to empower students from low-income families and disadvantaged schools will be determined by how well the funds are used by school administrators. The national examination scores of public primary schools in North Horr Sub County, as measured by the primary leaving examinations mean score has been fluctuating, with improvements and decline, over the years.

Different scholars' have carried out studies on capitation and national examination scores of schools. The implications of a capitation grant on the implementation of free primary education in Kenya were investigated by Owuor, Gudo, and Onditi (2016). However, the research did not cover how the capitation grant influenced the school performance. A study in Tanzania by Mzee (2015) on the governance effectiveness of education grant and how it affects educational outcome mirrors the current study but the context of the studies differ since the present study will be in North Horr Sub-County. The educational environment and grant disbursement between the two differ and thus further reducing the existing gap. There is currently little empirical evidence to explain the influence of capitation transfers on primary school test performance. This research is therefore focused at evaluating the benefits of timely and dependable capitation payments to schools and to investigate its influence on test scores. The research questions are: what is the impact of capitation transfers on examination scores for primary schools in North Horr Sub County? Are the examinations scores

better when transfers are made on time, adequately and reliably and poor in the year when there were significant delays, short on policy and expected amounts.

RESEARCH OBJECTIVE

To determine the impact of capitation transfers on school performance scores in North Horr Sub – county, Marsabit County.

Theoretical Review

This section provides a discussion on the relevant theories on the research subject area. Specifically, three theories anchor the study, namely; agency theory, systems theory and performance equation theory. The foundation of each theory and its applicability to the current research is discussed.

Agency Theory

Agency theory was advanced by Jensen and Meckling (1976) and posits that in company operations, one party (owners/principal) gives mandate of decision making and/or responsibilities to another party (an agent) to conduct the business activities on behalf of the principal. However, with this relationship, uneven distribution of information will regularly exists between agents and principals in the sense that the managers will be privy to more information about the company than the owners, a situation might lead to maximization of shareholder wealth or not will lead to efficiency being the selection criteria (Rungtusanatham et al., 2018). In an agency relationship, there are potentially two problems that may arise namely risk-sharing and agency problem. With regard to the agency problem, the objectives of agents vary from the ones of principals and since the owners do not run the firm on the day-to-day basis, it is expensive or difficult to verify whether the delegations awarded to agents were done as required (Jensen & Meckling, 1976). As regards the risk-sharing problems, this challenge comes up when agents and principals have varying attitudes towards risk that results into conflict about remedies to be undertaken. Efficient management of the organization activities will enable the increase in shareholder wealth and vice versa. Therefore, efficiency utilization of resources in an organization is expected to influence the performance of a firm since it affects its output.

Kokoreva and Ulugova (2016) highlight that the corporate principles decisions in a firm can provide incentive to different stakeholders in a way that will reduce behavior of value-minimizing and therefore lower the agency costs. Particularly, the selection process of the firm's operation, liquidity, and leverage, can control the costs of agency that arise from the company's management – shareholders relationship. Mensa and Abor (2014) suggested that the management support of the principal goals can be increased in the company and put in line with its accompanying interest of shareholders. Kokoreva and Ulugova (2016) opines that a company can lower the cost of agency by mounting its dependence on debt financing as sources of capital as well as being able to generate internal sources of finance. Effective cash conversion cycle, liquidity holding, leverage and management of payables is therefore expected to increase shareholder value. However, the concept of accruing debt financing dependency is limited as a result of continuous accumulation of debt

which may render a firm to get involved in financial distress. On top of financial distress costs, allegiance of emerging debt holders are expected to reduce the claim of active shareholders, thus the requirement of higher return rates that are depicted in increased capital cost of a firm (Mans-Kemp, 2014).

The agency theory is applicable in the current study because of the important role that school managers are expected to play in safeguarding of the public-school resources and more so the capitation grants advanced by the government to support their day-to-day operations as well as the infrastructural development. The school administrators are agents of the government in this relationship and therefore, the government expects that the agent considers the interest of the government under all decisions made with a view to realizing its objectives. One of the government objectives in extending grants to the schools is good performance of the pupils in the National examinations. On the other hand, the government is expected to fulfil its role as the principal by releasing the school support on timely and predictable manner. Similarly, it needs to motivate the schools' administrators and incur agency costs to align the school administrators' goals to theirs. Therefore, the agency theory is a relevant theory to the study.

System's theory

The theory adapted in this study is based on Ludwig von Bertalanffy's input-output model, which he hypothesized in 1956. An organized enterprise, according to Koontz and Weinrich (1998), does not exist in a vacuum; it is dependent on the environment in which it is established. They go on to say that the organization receives environmental inputs and changes them into outputs.

Demand for schooling is hugely influenced by economic factors (Wickens & Sandlin, 2007). Basic survival demands in disadvantaged communities may drive education down the priority ladder, especially if the rewards are judged to be less than the time, money, and results invested. As a result, simply having a school is not enough to gain admittance. If there is to be continuous demand and regular attendance, schools must match community expectations. Demand-side financing programs strive to drive demand for education by directing government resources directly to providers to enhance provision at no cost to the consumer where access is constrained owing to expenses to impoverished populations (. Johnson & Stage, 2018). Because funds follow or are delivered directly to consumers or providers, it is envisaged that this will reduce the need to charge customers for services, increase response to community needs, management, local decision-making, and fund utilization efficiency. With the government's provision of fiscal capitation transfers, no school is allowed to charge any fees. Therefore, the government and the communities must be guaranteed some reasonable returns from these investments (inputs) inform of favorable examination scores and education learning outcomes (Mattern, Radunzel, & Westrick, 2015).

As adapted to this study, capitation fiscal transfers constitute a main input, which is used by schools to purchase teaching, learning, and infrastructure and administration services. The direct output arising from it is schools' examination performance scores. In addition, the pupil teacher ratio, textbook pupil ratio, and classroom pupil ratio are all performance metrics that can be directly linked to the utilization of fiscal transfers. These is because the school learning resources such as teachers,

textbooks, and classrooms are outputs coming from prudent use of the capitation fiscal transfers in any school.

Performance Equation Theory

The performance equation theory also guides this research. Joshi (2009) proposed the performance equation theory, which states that the amount of performance achieved is influenced by three interdependent factors: ability, motivation, and resources. The driving forces of behavior that determine the degree of performance are ability, motivation, and resources.

Performance = Ability*Motivation*Resources (2x2x2=8) is the formula discovered by Carter and Selvaraj (2013). Any institution's performance will suffer if one of those criteria is missing. According to this study, accessible educational resources, both financial and non-financial, play a significant effect in improving test performance. Fiscal transfers from the government are a critical resource for schools in order to attain the intended goal of high test results. According to Carter's formula, there is no performance without ability and resources (0×2 ×0=0).

In the context of the present study, the performance equation theory is applicable because it recognizes that for improved performance to be registered, then the stakeholders need to invest adequate resources. Performance is an outcome of investment in resources by the principals and that the agents (teachers) need to be motivated as well to in order to actualize the desired performance. Therefore, as the performance equation theory suggest, there are three items that need to be addressed in a balanced manner if an organization performance is to be improved and that failure to optimally undertake one function will result in reduced performance. These three roles are performed by each group and thus need to be a synergistic understanding and relationship for the desired outcome to be actualized.

RESEARCH METHODOLOGY

Research Design

Research design, based on Sekaran and Bougie (2013), relates to guidelines relating to the achievement of objectives with minimal distraction. According to Glass and Hopkins (1984), ‘descriptive research involves collecting data that “describes events, organizing it, tabulating and describing the data collected. Descriptive research design is useful in establishing relationships between variables and is therefore relevant for this study. Consequently, since the study sought to establish the relationship between two variables, capitation transfers and academic performance of primary schools in North Horr Sub County. Hence the data was collected and analyzed the way it is without researcher manipulation.

Population of the Study

Saunder et al. (2014) defines a population as a complete count of all elements under investigation. The elements display similar characteristics to the researcher. The population for this study was 24

public primary schools in North Horr Sub County. No sampling was done and census design was used as all the 24 public primary schools were involved.

Data Collection Instruments

The study utilized both secondary data sources and primary data to be collected from the school administrators. The Secondary data was obtained from the official Basic Education Information Management Systems (BEMIS) and Education Statistics Year Books as published by the Ministry of Education, Science and Technology. The secondary information to be collected included the period when the funds was disbursed against the stipulated period, the amount advanced against the approved amount and reliability of the disbursement. In addition, the primary data be collected include number of pupils in the school, the board of management recruited teachers and the accredited teachers deployed by the Teachers Service Commission. The researcher got a research permit from the county government of Marsabit, Ministry of Education, Science and Technology and introduction letter from the University of Nairobi. Copies of these would be attached to the questionnaire and interview guide.

Diagnostic Test

The suitability of the data was examined by testing normality as well as existence of multicollinearity for the variables. In current research, normality was tested using Shapiro-Wilk and Kolmogorov-Smirnov Test. Shapiro-Wilk Test is suitable for sample sizes that are small like in this study. Test of multi-colinearity evaluates the high correlation of independent variables. It is when two or more predictors are extremely linked in the model contributing to inaccurate and uncertain measurements of regression coefficients and therefore bizarre outcomes in studying how easily the independent variable is understood. To test the level of correlation Wooldridge F-statistic serial autocorrelation analysis will be undertaken. Serial correlation test was done to test the level of correlation. Heteroscedasticity test was used to inspect if there is dissimilarity in residual variance of the period of observation to another (Godfrey, 1996).

Data Analysis

SPSS version 22 was used in analysis of the data. The association between the variables was established with correlation analysis. Also used to delineate variable features are descriptive statistics, for example the average and standard deviations. The regression analysis shall be used to determine the link between capitation transfers and school performance among primary schools in North-Horr Sub-County, Marsabit County.

Analytical Model

The data was analyzed using descriptive and inferential statistics. The SPSS v 25 was used to generate the statistics. Regression analysis was used to establish the relationship between variables. The model of analysis assumed the following form:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu$

This is represented in Table 1.

Table 1: Research Variables

Type	Variable	Definition
Dependent	School Performance (Y)	Average score / Total Marks
Independent Variables	Timeliness (X_1)	Number of days delayed / School days in a year
	Reliability (X_2)	Actual disbursement / Expected disbursement per term
	Adequacy (X_3)	Total amount disbursed p.a / Policy amount per annum
Control Variable	School Size (X_4)	Log of total number of pupils
	Teacher Competency (X_5)	BOM teachers / Total number of teachers in the school
β_0	Y intercept	
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$	coefficients of X	
μ	Error Term	

Significance of the model was tested using F-statistics generated through analysis of variance. The significance was tested on the 95% confidence level.

RESULTS AND DISCUSSION

Descriptive Statistics

The purpose of computing descriptive statistics was to offer a summary of the data in a format that would make it possible to understand the data appropriately. The statistics that were taken into consideration for this investigation comprised measures of dispersion in addition to the measures of central tendency, which included the mean, the minimum, and the maximum. In regard to the research findings, the measures of dispersion give a summary as well as the nature of spread; however, the measures of central tendency provide an extensive review of the study data around the central points. The data collected ranged from 2012 to 2021.

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Performance	270	.23	.66	.4804	.06897
Timeliness	270	.16	.48	.2390	.09635
Reliability	270	.62	1.11	.9240	.15930
Adequacy	270	.52	1.24	.9590	.21391
Size	270	1.18	2.85	2.4210	.26231
Teacher competency	270	.33	.731	.5667	.14216
Valid N (listwise)	270				

The descriptive results above suggest that the performance of the schools ranged from 0.23 and 0.66 with the average results being 0.4804. The performance of the primary schools was measured by dividing the average scores of primary schools by the overall marks of 500. The lowest and the highest mean score was 115 marks and 330 marks respectively, and the average marks of all the schools over the 10-year period was 240.2. With the .06897 < SD < 1, the results suggest that the mean scores of the primary schools did not differ much over the years. Timelines of disbursement of school capitation was measured by a ratio of number of days the capitation amount delayed from the opening of schools in a particular year to the school days in that particular year. The results suggest that the mean of 0.2390 (87 days cumulatively) in the year did not significantly vary between the earliest and the latest the disbursement was made in an academic year since the standard deviation was < 1.

The reliability of the school capitation disbursement was measured by a ratio of actual disbursement to the expected disbursement per term. The results suggest that the lowest disbursement received over the period represented 62% of the expected amount in a particular period while the maximum amount registered was 111% (1.11) of the expected amount. Consequently, the mean result of .9240 implies that over the period, the government has not been able to meet the targeted disbursement but rather 92,4% of the amount, has on average, been achieved per year.

The adequacy variable was measured by a ratio of the total amount disbursed per year to the stipulated policy amount per annum. The results reveal that the minimum amount received over the period was 52% of the total expected in the period and the average disbursement stood at 95.9%. Since the standard deviation in the results was all less than 1, it implies the variance between the highest recorded school capitation amount and the lowest amount realised was small.

The research adopted two measures as control variables, namely; school size and teacher competency. The size of the primary schools considered was measured by a log of the total number of pupils. The result is such that the mean was 1.18 and the highest measure is 2.85. The mean of 2.421 and SD< 1 shows that the variation of the number of pupils in the schools over the period was minimal. The staff competency in the schools was measured by a ratio of BOM teachers to the total number of teachers in the school. The results on this measure suggest that the school with the lowest number of BOM teachers was when they had 33% of the total number teachers. On the other hand, the maximum number registered was when 73.1 % of the teachers were BOM recruited. On average slightly over half of the teachers in the schools were BOM (56.7%).

From the descriptive statistics measures, it can be deduced that the performance of the primary schools in North Horr Sub-County was slightly below the median marks of 250 out of the possible 500 marks. The timeliness of the cash transfer to schools was also not on time since on average, the cumulative number of days that the government delayed in disbursing the cash over the year was 87 days though the delayed period in the three terms in an academic calendar was constant in between the terms. Further, the amount disbursed over the period was not meeting the stipulated policy target since only around 92.4% of the expected amount in a given year was achieved. Similar result was realized in relation to the adequacy measure which sought to determine the capitation amount met in a year which shows that 95.9% having been achieved over the period.

Effect of Capitation Transfers on School Performance

The effect of capitation transfers on school performance among primary schools in North-Horr Sub-County, Marsabit County was determined using a regression analysis consisting of model summary, Anova and the regression coefficients.

Model Summary

The model summary of a regression analysis explains the correlation between the dependent and independent factors. Additionally, the model presents the coefficient of determination which explains the percentage effect realized on the outcome variable courtesy of the explanatory variables.

Table 3 : Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.353a	.125	.108	.06514	1.713

a. Predictors: (Constant), Teacher competency, Adequacy, Timeliness, Size, Reliability
b. Dependent Variable: Performance

From the findings, it is evident that the effect of capitation transfers on the school performance is weak with a correlation of r = 0.353. Further, the results show that in total, all the five independent variables representing capitation transfers and control variables explains only 12.5% of the school performance (R^2 = 0.125).
This findings suggest that other factors that might determine school performance explain 87.5% of the variable.

Analysis of variance (ANOVA) presents the significance of the model in relation to goodness of fit of the model. In this respect, the ANOVA model determines if the regression model is a good fit for the regression data. The decision criterion is based on 5% significance level hence giving a 95% level of confidence.

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.159	5	.032	7.512	.000b
	Residual	1.120	264	.004		
	Total	1.280	269			

a. Dependent Variable: Performance
b. Predictors: (Constant), Teacher competency, Adequacy, Timeliness, Size, Reliability

The findings show a significance level of 0.000 which is less than 0.05. The findings thus imply that the model is a good fit for the regression data and therefore the regression model is significant for predicting the outcome variable given the specific units of the predicting variables.

Regression Coefficients

The regression coefficients help in determining individual variable effect on the outcome variable. The Beta coefficients attached to each variable shows the magnitude of effect on the outcome variable or the relationship between the dependent and independent variables.

Table 5: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.316	.080		3.971	.000
	Timeliness	-.026	.052	-.037	-.508	.612
	Reliability	-.274	.272	-.633	-1.007	.315
	Adequacy	.197	.202	.612	.976	.330
	Size	.071	.016	.269	4.570	.000
	Teacher competency	.082	.029	.170	2.879	.004

a. Dependent Variable: school performance

According to the regression coefficient results, the capitation transfers variable of timeliness, reliability and adequacy are insignificant in affecting the performance of the primary schools in North Horr Sub-County since the p-value > 0.05. Therefore, the significant variables that affect the primary school performance are school size and staff competency ($p<0.05$). The resulting regression model therefore is presented as;

School performance = 0.316 + 0.071(school size) + 0.082(Teacher competency)

The results mean that one unit increase in school size results in 0.071 unit increase of school performance. On the other hand, one unit increase in teacher competency results in 0.082 unit increase in the school performance.

Discussion

The objective of the study was to determine the effect of capitation transfers on performance of primary schools in North Horr Sub-County. The results from the trend analysis over the ten-year period reveals that as the adequacy of capitation amount transferred to the schools reduced the school performance also declined. Likewise, as the number of pupil ration increased and so the need to recruit BOM teachers increased, the quality of education as reflected by the school performance also declined. The results show that as the school size (as measured by the number of learners' population) increased, the pressure on existing school infrastructure increased and therefore overwhelming the teaching resources. This led to a decline in the school performance. This increase in the learner's population came about due to government decision to offer free primary education (MoE, 2014). Gross primary school enrolment increased by approximately 10% per annum, bringing total primary enrolment to 72.4 percent nationally. The result of this positive change in

pupils' enrolment is that Pupil-Teacher Ratio in public primary schools in Kenya increased to 58:1 from 40:1 (Ministry of Education, 2020). It was therefore expected that that the capitation grant should have matched the increased enrolment of learners. The positive change was registered in every part of Kenya and since there was no corresponding increase in support infrastructure to cater for the increase, it resulted in a drop of performance.

The results reveal that the timeliness and reliability of the capitation transfers assumed a downward trajectory since 2017 and during the same period, the performance of the primary schools in North Horr registered the trajectory. Timely and reliable capitation transfers facilitate provision of teaching, learning, infrastructure and administration services in a school (Owuor, Gudo & Onditi, 2016). Timely and adequately resourcing of schools will mean well equipped schools, better physical environment for teachers to teach and children to learn, and better school national examination scores so that the school community can achieve their desired academic performance (Dooley, Payne, Robb, 2013). The research findings suggest that the performance of a school is dependent to both internal and external factors and as the system theory allude, a school does not operate in a vacuum, but rather depends on its environment, implying that the school receives environmental inputs and changes them into outputs (Koontz & Weinrich (1998),
The results on the timeliness of the capitation transfers (β = -0.38, p=.818)reliability (β = -0.38, p=.818) and adequacy (β = -0.300, p=.803) suggest that the three capitation transfer variables have no significant effect on the performance of the primary schools in the North Horr sub-county. This is because the performance of these variables had declined over the period. In line with the findings of Ngowi (2015), an unreliable and poor provision of capitation by the government to public schools was found to result in poor student performance because the provision of these educational facilities is affected. UWAZI (2018) further assert that despite the Tanzanian government introducing reforms in the capitation grants policy, the program has experienced inconsistencies in terms of what is received by the schools and what they are actually supposed to receive. In Kenya, Owuor, Gudo and Onditi (2016) makes the same conclusion as the current research by observing that presently, the disbursement of the capitation grant is not enough and is not given on time thus failing to realize educational goals and objectives. In relation to the general declining state of the adequacy level of funds disbursed, Haki Elimu (2010) notes that the amount that actually gets to the schools has been systematically lower than the amount stated in the capitation policy and the challenge is further compounded by a lack of effective monitoring at the school level. The variance between the actual and the approved amount of capitation funds has been highlighted as a major cause of dwindling educational standards since it affects the budgeted programs execution (Owuor, Gudo and Onditi, 2016)

As the systems theory posit, an organized school system does not exist in a vacuum; it is dependent on the environment in which it is established. Similarly, the performance equation theory posits that school performance is a function of a product of Ability*Motivation*Resources (Carter and Selvaraj, 2013). This means that any institution's performance will suffer if one of those determinants is missing. According to this study, accessible educational resources, both financial and non-financial, play a significant influence in improving test performance. Fiscal transfers from the government are a critical resource for schools in order to attain the intended goal of high-test results.

Conclusion

Based on the research findings, capitation transfers to primary school play an important role in performance of pupils. This is evidence from the fact that as the timeliness, adequacy and the reliability of the funds declined in the period, so did the performance. In addition, the study concludes that matching the school resources to the increase in student enrolment has a direct impact on the performance of the primary schools.

The findings lead to the conclusion that capitation transfers so far advanced to schools has not been able to address all the needs of learners as well as teaching in the primary schools. Such challenges include congestion in the classrooms – more so, in schools adjacent to urban centers. The current capitation transfers model is more focused on quantitative results rather than qualitative aspect of performance.

Recommendations

The reliability, timeliness and adequacy of capitation transfers to primary schools were found not be a significant factor affecting the performance of primary schools. Hence it is recommended that its disbursement pattern be reviewed with a view to determining whether the existing arrangement is conducive to improving education outcomes in Kenya.

This existing arrangement (allocation formula) where every child in the country gets equal amount from the government irrespective of economic, social or climatic condition should be reviewed with the view of establishing an equitable allocation formula that incorporates other variables such poverty index, distance from central administrative Centre and special needs conditions, Further, there is need for the formulation of a policy direction to align the increased number of children in primary schools as result of free primary education to the resources required such as teachers and classrooms.

The capitation transfers call upon timely release of funds at the beginning of a every school calendar term and this needs to be enforced to make the policy effective. Further, to improve on capitation grants utilization, accountability and aid information access to the public, the MoE should publish capitation data on its website every year. The study established that the capitation transfers was found not to be adequate, it is recommended that individual schools should explore additional avenues of financing their operations through sustainable income generating projects and mobilization of community contributions.

Recommendation for Further Studies

Since the research was more focused on quantitative research, it is recommended that a mixture of quantitative and qualitative study is undertaken with a view to establishing the relationship between capitation and a learner overall performance, and thus facilitate generalization of the findings. Furthermore, the study recommends that future studies be conducted using more broader dimensional characteristics to establish whether there is difference in the findings. Due to the limitation of a localized area of the study, it is recommended that a comparison study be undertaken

to assess the impact of capitation transfers on primary schools' performance in urban areas and those considered as hardship regions.

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