



Regular Article

Challenges of school feeding in Ghana: Its effect on enrolment and attendance

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ABSTRACT

The study seeks to access challenges of the school feeding programme and its effects on enrolment and attendance in the Northern Region of Ghana. The review of relevant literature in this study identified the challenges within the school feeding programme which included political interference, non-involvement of the Ghana Education Service and the teacher. This retarded the efforts of the school feeding programme to better enhance the chances of increasing enrolment and attendance. These challenges found little space in many of the studies in the area of school feeding research.

To better examine the challenges, the study used the multi-stage cluster sampling technique in the selection of respondents. The study applied questionnaire in the data collection process. Results were aided with the use of correlation and regression in the analysis of the data. The study found that political involvement have a negative impact (-0.096) in the delivery of the programme but significant to the operations of the school feeding programme in view of its P. value (0.000). It is also confirmed that the Ghana Education Service (0.340) with a P. value (0.000) and the teacher (0.659) with a P. value (0.000) have a strong predictive capacity of increasing enrolment and attendance. When Ghana education service and the teacher is given full control of the operations of the programme, they will impact positively on programme operations and as well enhance enrolment and attendance.

1. Introduction

The responsibility of every government is to promote economic growth and as well enhance standard of living for its citizens. This can be achieved when the human resource of the nation is developed. Human resource development is very critical in the advancement of political discourse in every nation. To achieve this, there is the need for the provision of quality basic education to the people including the poor in society. This will equip citizens take up responsible positions within the public service. It justifies the reason why the United Nations Millennium Development Goal (MDG) two (2) advocates for the provision of universal primary education in all developing nations. These developing nations need more education for their people than the developed nations. This is due to their inadequacy in education and development. The provision of such a need to the poor in society will alleviate their plight to meet developmental goals.

Education is considered a basic human right which every nation

recognizes as such. It is also enshrined in the Universal Declaration of Human Rights (UDHR) in 1949. It spells out the need for every country to educate its people. It makes it mandatory for the provision of basic education to every Ghanaian especially the poor and the under privilege in society. The convention on the rights of the child also makes it mandatory for countries under the treaty to implement the charter. It makes it binding on Ghana as a member of the convention on the right of the child to find ways of providing basic education to every child.

In a study by [Arteaga and Heflin \(2014\)](#) found evidence in delayed primary school enrolment as a cause of nutritional deficiency in early childhood. The study concluded that children with better food will start school earlier than their peers without better food and as well join the labour market. It is also stated in a United Nations world population prospects report that the cause of poverty in adulthood is from childhood ([United Nations, 2013](#)). It further states that malnourished children grow up to be impoverished parents who again raise their children in poverty. This again is supported in the Ghana living standards report

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which elaborated on the regional distribution of poverty (Ghana Statistical Service, 2014). To break this chain of poverty, there is the need for the provision of a social and educational intervention to lift the poor out of their current condition.

In Ghana, the modality used to break the chain of poverty in addition to the enhancement of basic education is the in-school feeding. Every child in a public basic school under the programme is provided a free hot meal each day he or she attends school. The Ghana school feeding programme only uses the in-school feeding strategy in all operated schools. Apart from the Ghana school feeding programme, the World Food Programme (WFP) implemented the take home ration in many of its programme schools in Ghana. Food stuffs were supplied to school children when they attended school. This was to motivate deprived children and their parents to get them enroll and attend school.

The duty of government of Ghana as a public service provider is to make available basic education to lift its people out of poverty. The Northern Region with the highest number of poor people in Ghana therefore deserves special attention in the provision of this public programme. A study of this nature therefore is needed to assess the challenges of the school feeding programme in the Northern Region. To determine the necessary alternatives that is needed to minimize these challenges in order to maximise the benefits of the programme in increasing enrolment and attendance. The study will serve as a tool to restructure the operations of the school feeding programme. It will give meaning to the numerous interventions by development partners and also policy makers to redirect their attention on best implementation strategies of the programme. This will improve enrolment and attendance in the country. The study will also serve as a guide to re-examine the role of the Ghana Education Service and the teacher within the school feeding programme. It will serve as a manual for policy makers and also for other researchers in the area of school feeding or social intervention programmes.

1.1. Operational challenges of school feeding

School feeding as a social intervention programme started in many forms before its current implementation structure. Studies have been conducted in different areas of its operations throughout the world. The most prominent work done so far in relation to the current research problem is in the work of D. A. Bundy et al. (2012) on school food, politics and child health. Their study analysed the provision of school food and its impact on enrolment and concluded that the programme had an impact on enrolment. It did mention an element of political interference in the operations of the program but how and in which form it interfered was not captured. The possible cost effective methods to the sustainability of the programme also gained prominence in the work of Essuman and Bosumtwi-Sam (2013). It looked at the heavy operational cost on the part of many governments and its impact on national budgets. There is no mention of what can be done to eliminate the high level of political interference. The reasons for the rising cost of the programme and what should be done to contain the rising numbers in enrolment. In another study, emphasis is on school feeding as a social safety net which motivates children to go to school and also help keep them at school (Abotsi, 2013; McEwan, 2013; Bundy et al., 2009). School feeding as a factor in increasing enrolment and attendance is also dealt with in the work of Gelli et al. (2007). These studies failed to outline the importance of the teacher and the nature of political interference in the programme. It also failed to recognise the importance of the agency responsible for education in the respective countries in which these studies were carried out.

Secondly, there are studies which did mention political interference in school feeding programme and the interplay of politics and food within the world (Robert & Weaver-Hightower, 2011). Another mention of politics in school feeding is in D. A. Bundy et al. (2012). Most of the work done on politics in school feeding is a mention of government oversight responsibility of the programme. How the government runs

the programme, in which form and how it affects the programme is not mentioned.

Research is also done on participation in school feeding in much of the programme operating countries like Kenya and Bangladesh. Much of the work in school feeding is on community participation. Concentration is on how the community can help improve the efficiency of the programme (Langsten, 2017; Studdert et al., 2004). It is again emphasized in the work of Chauhan (2015) on how communities show concern for the programme when they are involved in its operations. It also found space in the work of Uduku (2011) confirming how communities are willing to support the programme only when they are recognised as partners in the programme.

Emphasis on stakeholder participation is in Alderman et al. (2012) in which they emphasized on food for education which increases participation in education. Food for education is a modality in line with the take home ration in the provision of food for children at the basic school. This study did not look in to how the service of the teacher who is the administrator of the school in the operations of the programme. The role of the teacher and the education agency was not recognised. There is also work on participation which concluded on the positive association between school food and school programme involvement (Mirtcheva & Powell, 2009).

In the work of Silveira et al. (2013) established the importance of participation in the introduction of school based nutrition interventions. All studies on participation in school feeding failed to address the role of the teacher taking a front role in the operations of the programme. What if he is given an active role? Will that improve programme delivery and encourage children to enrol and attend school? What if the educational agency is given the oversight responsibility of the programme rather than the establishment of new institutions resulting in the creation of parallel authorities?

1.2. The Ghanaian context

Alderman and Bundy (2012) in their work classified the programme as a politically popular social protection programme in Ghana. The author explains that the involvement of politics in the operations like the recruitment of schools within the programme makes it difficult to assess its real performance with respect to enrolment and attendance. Ahmed (2004) holds the view that political engagements in the recruitment of schools turn to overshadow the intention of the programme to reduce poverty. Some partners of the programme in Ghana like the Send Foundation indicated that political interference already played a role from the initiation of the programme. To draw on their experience in social intervention programmes, Abotsi (2013) advised that if laid down principles are not followed the goal of the programme could be in danger. The author admitted that it had an inspiration and commitment to fight hunger but the interference of politics in school recruitment soon came to hinder its operations. Although political interest evoke uncertainty about the poverty orientation, they also sometimes explain why some partners refuse to join due to the haste in which decisions concerning school recruitment are made. Essuman and Bosumtwi-Sam (2013); Quaye et al. (2010) might be right when they indicated that halving hunger by 2015 was a political decision not achievable in the Ghanaian context. They based their findings in the nature of school recruitments within the programme.

Nudzor (2013) in exploring the policy paradox stated that the inception of the Ghana school feeding programme in 2005 was a classic example of the government effort in the fight against poverty and to increase enrolment and attendance. But Amutabi (2003) on the other hand indicated that many service partners could see the programme as a means to stimulate support for the government which is a major challenge in the operations of the programme. Eric and Gyapong (2014) on their work on contribution of school feeding to basic participation in Ghana quickly acknowledged the distribution or allocation of caterer contracts in school feeding schools in the country. This clearly indicates

the political allocation rather than the use of capability indicators as a means of recruitment. For the benefit of the basic school child such a practice in the recruitment of caterers endangers the sustainability of the programme. Adding to this, [Chauhan \(2015\)](#) stated that the need to increase enrolment and attendance should be the priority to recruit efficient and capable caterers who can provide better service to the poor and hunger prone communities with a greater food need within the programme.

[Eric and Gyapong \(2014\)](#) in their work criticised a norm in the operations of the programme where by anytime there is a change in government there is a corresponding change in caterers or some caterers. It is same in terms of secretariat staff but mainly with the directors of the programme at the national, regional and district levels. [Adamu-issah et al., 2007](#) in their United Nations working paper achieving universal primary education in Ghana by 2015: a reality or a dream? Stated that enrolment and attendance at the basic level has not been increasing sufficiently to meet the goal of universal completion by 2015 as stated in the policy document. Challenges associated with the lack of increasing enrolment and attendance can be associated with lack of suitable human resource implementing these social interventions to meet the objective of universal completion by 2015. The recruitment of caterers which is very crucial to the programme has become a political largesse to honour political loyalist.

1.3. Theoretical framework

Social justice theory best explains the topic under study. Social justice theory advocates for the inclusion of necessary stakeholders within the programme in an orderly manner. When necessary stakeholders are fairly involved there will be improved delivery in the school feeding operations leading to increase in enrolment and attendance. Enrolment and attendance will better improve when the recruitment of schools and caterers are done in an orderly and just manner. This is prescribed in the operations manual of the school feeding programme and envisaged by social justice. Selecting schools based on their social status or poverty conditions in line with the objective of the school feeding programme.

[Blessett et al. \(2019\)](#); [Koller \(2013\)](#); [Rawls \(2013\)](#) in their work on social equity made emphasis to the effect that all human beings should have access to benefits of their society and also have a level of value to be honoured in recognition of their basic human rights. The authors who are well known for their contribution to the theory of social justice hold the view that the lack of children having access to education due to their poverty situation is against human rights. This is because the poor child for whom the school feeding was established must see justice in the operations of the programme. This will increase the benefits of the school feeding programme to the intended beneficiaries. This forms the basis of social justice. The theory in itself advocates fair and compassionate distribution of the fruits of economic growth of the nation. In the case of the school feeding programme in Ghana, fair distribution can only be achieved when there is orderly and just recruitment of caterers, schools, involvement of teachers and the Ghana education service.

Adequate participation and justice cannot be fully achieved in the operations of the school feeding programme likewise in any other programme when there is high stake of political players. Scholars like [Teklu \(2010\)](#) in his analysis of social justice and participation in a visual impaired social support programme do accept a level of participation and justice in the distribution of programme benefits, but on the other hand disagreed with other conclusions that may not follow from this. [Hyttén and Bettez \(2011\)](#) have the view that people are in all respects entitled to the respect of their fellow men and women. The author explained that there can be no measure of injustice because there are no fellow men and women by which such injustice is committed. The conduct of agencies within the school feeding programme can be determined unjust looking at the operational manual of the programme. In the view of the author, this situation makes the determination of unjust behaviour difficult when procedures are followed by agencies in

their discharge of their duties but beneficiaries are disadvantaged. This is the case of the school feeding programme in which the programme secretariat and the district assembly do recruit caterers and schools. These recruitments are not in the interest or are unjust to the poor child and the poor community.

[Mamukwa and Mamukwa \(2020\)](#) concludes that operational challenges of the school feeding programme cannot be fully addressed using a singular approach to the issue under study. The choice of social justice theory for this research therefore suggest that the involvement of all the necessary stakeholders like the teacher, Ghana Education Service, parents, students and the community as a whole will promote symbiotic relationship within the programme operations.

1.4. Sampling procedure

To determine who to include in the study needed the use of the multi-stage cluster sampling technique. This type of sampling technique can sometimes be complex. The complexity of this technique is due to the demand of dividing the population in to groups also known as clusters. The research divided the Northern region in to clusters for better identification on who to study. This was followed by purposeful sampling in the selection of programme schools.

The school feeding programme covers selected public basic schools in the Northern region. The Northern region consists of fourteen (14) districts out of which ten (10) districts were chosen based on their vulnerability status. In each district five (5) schools were chosen which included seven (7) teachers each. The target population of 350 teachers comprising 35 from each district. The involvement of the above population is an indication of their direct involvement in the management of schools.

For the purpose of this research, the main primary source of information was from questionnaire. The questionnaire was adopted from a previous PhD study by the same author which had twenty-eight items. Using the Statistical Package for social Science (SPSS) software, the Cronbach's Alpha was 0.769 which indicated that the data for the study was reliable.

2. Method of analysis

The study relied on quantitative data with the use of questionnaire which went through the process of coding and re-coding in some instances. The coding was done in view of the measurement of all variables using an ordinal scale (five-point Likert scale). The researcher took turn to analyze the processed data using different statistical analysis. At the bi-variate level the Pearson correlation was used to determine the relationship between variables. The multiple regression was also used at the multi-variate level to explain the statistical significance and contribution of the independent variables like political involvement, GES involvement and teacher level of involvement in to the operations of the school feeding programme.

2.1. Conceptual framework

A conceptual framework is considered an analytical tool with context and variations ([Jabareen, 2011](#)). It is a tool used to organize ideas and as well make a conceptual distinction. It is noted that strong and formidable built conceptual frameworks portray something real. It is also done in a way that is common and easy to use, apply and remember. [Tamene \(2016\)](#) noted that conceptual frameworks are representations of abstracts which are connected or have relationship with the research goal. The author again states that the conceptual framework explains or depicts the real sense of the goal or purpose of the research which again directs the collection and analysis of the research data. He concludes by noting that conceptual frameworks are ideas and thoughts put in an organized manner to achieve a research goal or purpose. In the work of

Huang (2009) in the determination of factors that contributed to residential fires in United States cities, found three factors that influenced residential fires. These factors became the hypothesis or the conceptual framework which was used to achieve the purpose of the research.

Using this scenario in this current study, the operational challenges of the school feeding programme in the Northern Region of Ghana identified in the study are the building factors for the formation of the conceptual framework or the hypothesis. The conceptual framework for the research under study is presented below: (Fig. 1)

2.1.1. Hypothesis for the study

The following hypothesis represents a clear explanation of the pictorial description of the conceptual framework of the research under study.

H1. The recruitment of extreme poor schools on vulnerability status, capable and permanent caterer’s in all programme schools will reduce political interference and improve school feeding operations.

H2. The involvement of the Ghana Education Service and the use of its existing structures will improve operations and delivery than the Ghana school feeding secretariat and the district assembly.

H3. The involvement of the teacher in charge at the school level will enhance parent, student and community participation in the operations of the programme.

H4. Effective operations of the school feeding programme will improve enrolment and attendance.

The above therefore defines the direction, purpose and goal of the research. It again influenced the direction of data collection and analysis of the study.

2.1.2. Specification of the research model

The study came out with a model to explain the relationship between the various variables within the research or under study. This model therefore establishes the relationship and the effect of political involvement, teacher involvement, Ghana education service involvement and operational change in school feeding on enrolment and attendance. The model better explains the effect of these independent variables on the dependent variable. The effect that these independent variables have is the major cause for worry in the operations of the school feeding programme. The author’s own construct of the model was estimated with the help of using the multiple regression tests. All variables under study were transformed after measurement using nominal scale. The model therefore is represented below:

$$IDEA = \beta_0 + \beta_1GIV + \beta_2TIV + \beta_3OPC + \beta_4POI + \epsilon$$

The variables in the equation are explained below:

IDEA = Increase/Decrease in Enrolment and Attendance

POI = Political Involvement

TIV = Teacher Involvement

OPC = Operational Change

GIV = Ghana Education Service (GES) Involvement

β_0 = intercept or constant

$\beta_1, \beta_2, \beta_3$ = percentage change in Y value given one-unit change in any variables

ϵ error term

3. Discussion

The challenges of the school feeding programme are classified as the operating variables for this research such as Ghana Education Service non-involvement, teacher non-involvement, operational change and political interference. Political interference of key power player’s affects enrolment and attendance as described and explained. The explanation and description of the impact of these variables on enrolment and attendance by the researcher cannot be clearly distinguished in the description to the extent to which these variables affect increase or decrease in enrolment and attendance. To better understand the effect of these variables, there was the need to determine their relationships and their nature of effect. The author therefore measured all variables using an ordinal scale with a five-point Likert scale in the correlation matrix table below Table 1.

The correlation matrix provides some insights in to which of the variables are related in enrolment and attendance. The highest correlation with enrolment and attendance is teacher involvement (0.836) and Ghana education service involvement (0.777). Both correlations are very high and positive. Operational change (OPC) is also positively correlated with enrolment and attendance at 0.576. On the other hand, political involvement is negatively correlated at -0.151 which is not a surprising outcome.

From the correlation matrix it is noted that all the variables have a relationship with enrolment and attendance at the public basic schools. It is observed that when there is more teacher involvement in the activities of the school feeding operations there will be a better relationship on enrolment and attendance in schools and if there is minimum

Table 1
Correlation matrix.

		IDEA	GIV	TIV	OPC	POI
IDEA	Pearson Correlation	1				
	Sig. (2-tailed)					
GIV	Pearson Correlation	.777**	1			
	Sig. (2-tailed)	.000				
TIV	Pearson Correlation	.836**	.794**	1		
	Sig. (2-tailed)	.000	.000			
OPC	Pearson Correlation	.576**	.270**	.450**	1	
	Sig. (2-tailed)	.000	.000	.000		
POI	Pearson Correlation	-.151	.250**	.446**	.373**	1
	Sig. (2-tailed)	.002	.000	.001	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Author’s Survey Data

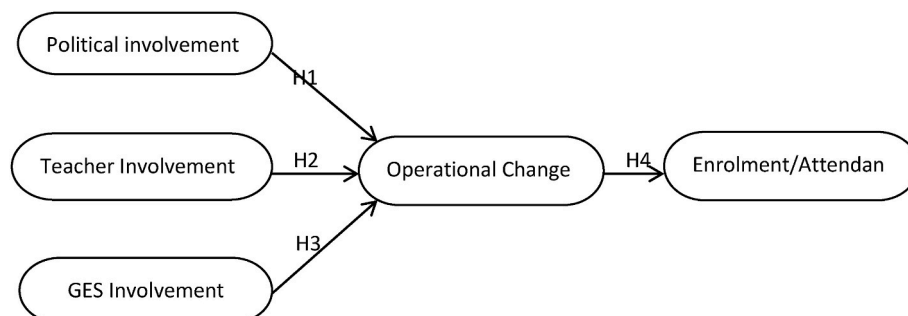


Fig. 1. Conceptual framework.

teacher involvement there will also be less relationship on enrolment and attendance. This is confirmed with a correlation significance of 0.000 which is < 0.01. The relationship therefore did not show the change in impact of the various variables. This could only be determined by impact analysis with the use of regression.

3.1. Impact on enrolment and attendance

To determine the nature of prediction, impact, importance or significance of each variable in the operations of the school feeding programme, there was the need to use regression. This was to determine which independent variable was important or had a prediction strength. Minimizing the operational challenges will definitely improve programme delivery and as well increase enrolment and attendance. The model summary confirms the postulation of the author in the conceptual framework for this study under the methodology. The summary of the entire regression which is known as the regression statistics table is presented below Table 2.

The regression statistics table indicate a number of items which summarises the entire regression of the study. The R or the multiple R on the table is the square root of R-squared and it also indicates the relationship or the correlation between the observed and the predicted values of the dependent variables which is 0.963 for this study. R-Square on the other hand is the proportion of variance in the dependent variable (enrolment/attendance) which can be explained by the independent variables (teacher involvement, Ghana education service involvement, operational change and political involvement). The proportion of variance of the dependent variable explained by the independent variables is 93%. It is also an overall measure of the strength of association and does not reflect the extent to which particular independent variable is associated with the dependent variable.

Adjusted R-square is the adjustment of the R-squared that penalizes the addition of extraneous predictors to the model. In this study the adjusted R-square is 92.7% which is almost same as the R-square value of 92.8%. It means that the penalization of extraneous predictors is negligible. Standard Error of the estimate on the other hand is the root mean squared error which shows that the other variables not been taken in the model have influence of 0.33%. It is also the standard deviation of the error term and the square root of the mean square for the residuals in the ANOVA table below Table 3.

The degree of freedom (DF) is associated with the source of variance as shown in the ANOVA table. The total variance has N-1 degrees of freedom. The regression degrees of freedom correspond to the number of coefficients estimated minus 1. Including the intercept, there are five coefficients, so the model has 5-1 = 4 degrees of freedom. The error degrees of freedom are the DF total minus the DF model, 349-4 = 345.

The results show that the model for this study is generally significant at a P. value of 0.000 which is associated with the F-statistic. The F-statistic is the mean squares of the regression which is divided by the means squares of the residual: 119.535/0.108 = 1103.603. The p-value is compared to some alpha level in testing the null hypothesis that all the coefficients are 0.000. The sum of squares is the fraction in the dependent variable which is predicted by the independent variables. Using this analogy, the intent was to find out whether the variables are statistically significant at 5% and at 95% confidence level. This intention was successfully fulfilled.

To further indicate which among the variables has more predictive significance at a probability level of 0.05, the coefficient table therefore

Table 2
Regression statistics.

Multiple R	0.963
R Square	0.928
Adjusted Square	0.927
Standard Error	0.32911

Table 3
Analysis of variance.

Model	Sum of Squares	Degree of Freedom	Mean Squares	F	Significance
Regression	478.141	4	119.535	1103.603	0.000
Residual	37.368	345	0.108		
Total	515.509	349			

explains it better. Based on the model at a significance level of 5%, it can therefore be concluded that political involvement with a coefficient value of -0.096 is not important and will have a negative or inverse relationship with enrolment and attendance. The other results of importance and significance of all the variables are presented in the coefficient table below; (Table 4)

From the computation of variables, the results are presented in the coefficient table above. Maintaining the model as follows;

$$IDEA = \beta_0 + \beta_1GIV + \beta_2TIV + \beta_3OPC + \beta_4POI + \epsilon$$

The first variable constant represents the Y intercept, the height of the regression line when it crosses the Y axis. In order words, this is the predicted value of enrolment and attendance when all other variables are 0. The coefficients are the values for the regression equation for predicting the dependent variable from the independent variable. The standard measure of the variables in the equation signifies that holding all variables in place or involving all the four independent variables in the operations of the school feeding programme will increase enrolment of children at public basic schools. This result supports the overall findings of the study which states that the maximum involvement of all stakeholders in the operations of the school feeding programme is very important but others are more important than others as presented below.

H1. The involvement of the Ghana Education Service and the use of its existing structures will improve operations and delivery than the Ghana school feeding secretariat and the district assembly.

To determine the nature of impact of the Ghana Education Service (GES) from the coefficient table all variables were held constant. With a positive coefficient it therefore means that for every stage of the operation process of the school feeding programme, Ghana education service involvement will increase enrolment and attendance of children by 0.340 holding the other variables constant within the model. This signifies that the involvement of Ghana education service in to the operations of the programme will have a positive impact. It was also supported during the interviews conducted on the need to involve the Ghana education service in its operations. The resultant coefficient of Ghana education service (0.340) is also significantly different from 0 because its P. value is 0.000 which is <0.05. Given the opportunity, the involvement of the Ghana education service will improve the delivery of the school feeding programme and as well increase enrolment and attendance.

H2. The involvement of the teacher in charge at the school level will enhance parent, student and community participation in the operations of the programme.

On the part of teacher involvement (TIV) in the operations of the school feeding programme, the results from the coefficient table clearly

Table 4
Coefficient results.

	Coefficient	Standard error	t-stat	P-value/ Sig.
Constant	1.069	0.204	5.249	0.000
GES Involvement	0.340	0.021	15.840	0.000
Teacher Involvement	0.659	0.019	34.774	0.000
Operational Change	0.299	0.019	15.358	0.000
Political Involvement	-0.096	0.020	-4.763	0.000

indicates the need for the teacher in the programme. The teacher is a manager in charge of schools under which he operates and is considered a key stakeholder within the school feeding programme. His role as a supervisor in the provision of quality food from the store room, kitchen and service to school children can be considered as his involvement. His involvement as the supervisor at the school level could also be a check in the inflation of student numbers in caterer claim forms. The need for his involvement is evident from the regression equation where the coefficient for teacher involvement (TIV) (0.659) is significantly different from 0 because its P. value is 0.000, which is <0.05 .

The above results indicate that holding the other variables constant, when the teacher is involved in the operations of the school feeding programme almost 0.7 children will be enrolling and attending school. This confirms the hypothesis that the involvement of the teacher will improve operations of the school programme. There by increasing enrolment and attendance at public basic schools. The results showed that this variable is the strongest predictor in the quest to increase enrolment and attendance at public basic schools holding the other variables constant. The coefficient table also indicates a positive contribution of the variable teacher involvement which is indicated by a corresponding positive coefficient of 0.659. The finding is confirmed in the work of [Kim and Rouse \(2011\)](#). The finding is also supported in the work of [Iddrisu \(2018\)](#) on the relevance of involving the teacher in the operations of the school feeding programme in the Northern Region of Ghana. It is also a reflection of the importance of the teacher in the operations of the school feeding programme when given the opportunity.

H3. The recruitment of extreme poor schools on vulnerability status, capable and permanent caterers in all programme schools will reduce political interference and improve school feeding operations.

The last independent variable in the study is political involvement or interference in the operations of the school feeding programme. Per the operations manual of the school feeding programme, schools are to be recruited based on their poverty situation. Political interference in this study refers to the frequent change in caterers and recruitment of schools based on political affiliation which makes the programme operations inefficient and as well hinders enrolment and attendance.

It is found to have a negative coefficient which shows an inverse relationship between political interference and enrolment/attendance. Political involvement with an inverse relationship with enrolment and attendance means decreasing enrolment and attendance but significant to the operations of the school feeding programme in view of its P. value (0.000).

With a negative coefficient of -0.096 , political involvement in to the operations of the school feeding programme will decrease enrolment and attendance in beneficiary public basic schools under the school feeding programme. It also means that for every degree or level of interference on the part of politicians in to the activities of recruiting schools or caterers in the school feeding programme, there will be a decrease of -0.1 number of children in enrolment and attendance at the basic level. The coefficient was also found to be significantly different from 0, because its P. value is 0.000 which is <0.05 . The finding on this variable is confirmed in the work of [Hauwere \(2007\)](#) when he repeatedly mentioned the negative effect of politics in the operations of the school feeding programme but failed to state the area of effect. Any change or increase in recruiting schools and caterers on political loyalty in to the operations of the programme will result in a decrease in enrolment and attendance in public basic schools. The total elimination of political involvement in to the operations of the programme will not be in the interest of all stakeholders in its operations. It therefore explains the need for a change in structure of operations the role of the district assembly in recruiting schools and caterers. This is to be exchanged with the Ghana education Service (GES) and the teacher in charge at the school level.

H4. Effective operations of the school feeding programme will

improve enrolment and attendance.

The importance of changing the operational structure of the school feeding programme will be manifested when all other stakeholders are involved. It is obvious that there will be improved delivery of the school feeding programme when programme operations are effective. From the coefficient table, operational change has a positive coefficient of 0.299. So, for every unit change in structure of operations of the programme, 0.3 numbers of children will be enrolled or predicted to enrol and attend basic school holding all the other variables constant. The coefficient for operational change (0.299) is also significantly different from 0 because its p. value is 0.000, which is <0.05 . It again shows the importance of changing the nature and structure of operations to improve upon delivery to beneficiary school children. This variable is important because involving the teacher, Ghana education service and reducing or limiting political interference will definitely change the structure of operations which will also result in predicting an increase in enrolment and attendance by 0.299.

4. Conclusion

The data for the study revealed that most public basic schools and caterers are recruited based on political contact. Political involvement in the recruitment of schools and caterers do have an inverse relationship or a negative effect in the operations of the school feeding programme but important in the operations of the programme. Extreme poor schools with poor children and experienced or competent caterers don't get recruited. Ghana education service and teacher involvement have positive impact in the operations of the school feeding programme and will positively increase enrolment and attendance at public basic schools in Ghana. The experience of teachers as managers of the school system and their previous experiences in other school feeding programmes like the world food programme [Iddrisu \(2018\)](#) makes them the right stakeholders at the school level to take control of operations. Involving the teacher and the Ghana education service will eliminate parallel institutions and as well change operations and promote good governance within the programme.

The regression model in the study reveals that the involvement of the teacher has a predictive capacity of 0.659 indicating the capacity to increase enrolment and attendance at public basic schools when the teacher is involved. This is supported by the qualitative data which states that parents and students have more trust in the programme when teachers are in control. The characteristics of teachers in this study give meaning to the need to involve the teacher in taking control of the programme. The model also postulates a strong predictive capacity of 93%, which means that the involvement of the Ghana education service, teacher and the limitation of political interference in the school feeding programme will improve the operational structure. This will result in increased enrolment and attendance. It is also supported by parents and teachers that the Ghana education service will do better when they are in charge of the programme operations due to their structural and personnel presence in all districts of the country. Their involvement will eliminate parallel institutions there by reducing cost of operations, bureaucracy and enhance transparency. The model again reveals that the involvement of politics negatively affects the operations of the school feeding programme. The inappropriate recruitment procedures of schools and caterers hinder the success of the programme which again limits the chances of the programme involving the poor or promoting increased enrolment and attendance.

In all the districts and schools visited, respondents indicated that caterers were changed due to change in government. This frequent change therefore incapacitated school children when caterers were changed. Children had no food to eat within the period of caterer absence leading to low attendance and others dropping out to join parents on the farm. The negative effect of political involvement in the operations of the school feeding programme is found in the regression results. It is confirmed from the coefficient results to have an inverse

relationship with enrolment and attendance (-0.096), but is significantly different from zero (0). This is because its P . value is 0.000 which is <0.05 . With a negative coefficient it therefore means that political involvement is negative but relevant in the operations of the programme due to its statistical significance. This also explains why there are a number of challenges within the programme. This is due to the enormous influence or control of politicians.

The study again revealed that the absence or the non-involvement of the Ghana education service affects children enrolment and attendance at the basic school level. These findings are confirmed in the regression results from the use of the SPSS software. The regression results indicated that Ghana education service involvement (0.340) is significant and different from zero (0), because its P . value is 0.000 which is <0.05 . It is therefore important in the operations of the school feeding programme with a positive coefficient of 0.340 . The findings revealed that given the opportunity the Ghana education service will increase enrolment and attendance at the basic school level and is also considered an important predictor in increasing enrolment and attendance.

The study also revealed that the non-involvement of the teacher affects children chances of getting enrolled. Findings from the regressed results indicated that the teacher is the most significant predictor of enrolment and attendance and as well important in the operations of the programme. With a P . value of 0.000 means that the teacher is significantly different because its p . value is <0.05 and therefore need to be involved in the school feeding operations. Again, with a positive predictive capacity of 0.659 the teacher is considered important and will contribute positively to increase enrolment and attendance. This is evident in his characteristics as the custodian and manager of the school system. His ability, skills and experience prove him worthy and will do as he is tasked to in the best interest of his society. This is confirmed in the work of Iddrisu (2018). He is therefore an asset to the programme in the best interest of the children. Children were found to be worried anytime food is served without teachers concern and as well teachers absenting themselves from the classroom during food service. Some children had no interest in the food due to the attitude of their teachers towards the programme. In an attempt to encourage poor children patronise the food, there is the need to involve the teacher as a first point of call. Getting the teacher take up the control of the programme at the school level is a move to minimize an operational disorder within the programme which will also enhance increment in enrolment and attendance.

5. Recommendations

In many of the stakeholder meetings and sensitization in the regions and districts, concerns on how the programme is losing its focus of being a social protection programme were raised. The major concern was why an education policy is becoming a political tool or largesse. But the question that still remains and yet to be answered is whether these politicians can be left out of the way in the implementation and operations of the school feeding programme.

To minimize political involvement in the programme operations and to serve potential beneficiaries or poor children fairly, as postulated by social justice in education theory. The study came out with the following suggestions as a better way to operate the programme efficiently and effectively. These recommendations made in this research are based on the experience of the Deng Fei school lunch scheme in China and are presented below;

- The study recommends that the programme should be taken out of the office of the president and be made a department at the ministry of education under the Ghana education service. It will be the first step in delinking the programme from the hands of the politician. This will give autonomy to the operations of the programme from the national to the district level. It will also empower whoever is assigned to be free from political control.

- The study again recommends that the implementing ministry should be changed to the Ministry of Education rather than the current ministry of Gender and Social Protection. The Ministry of Education qualifies more in implementing the programme because it is the beneficiary ministry as in the case of China, India and Brazil. The Ministry of Gender and Social Protection (MoGSP) should only support in the policy and technical advice to the Ministry of Education as a service partner.
- The Ghana Education Service should take control as an agency under the ministry of education at the regional level instead of the regional coordinating council and the school feeding secretariat. This will eliminate parallel institutions and cost of operating the programme. The Ghana education services already have a better structure, requisite skills, personnel and also absolute control of various schools in each district to better determine who is most qualified to benefit. They implemented similar programmes in collaboration with the World Food Programme (WFP) and the Catholic Relief Service (CRS). They also have the necessary personnel to monitor the programme without additional labour and cost.
- Teachers from the experience of this research found that they are comfortable working with the Ghana education service than the district assembly and the school feeding secretariat. Their involvement will motivate parents and students to cooperate in the programme leading to an enhance enrolment and attendance.
- Volunteers in various communities should be given the power to monitor the programme and report to the Ghana education service as the case of the Deng Fei school lunch scheme. Involving parents as volunteers will also assure them of community ownership of the programme which can lead to community commitment in its sustainability.

6. Implications of the study for practice

The institution of public management in many developing countries and including Ghana is in the developmental stage. The act of managing the public sector in every government operations needs good governance. This also means the setting up of institutions and the application of appropriate policies to better meet the needs of modern societies. The outcome of the study confirms the need for a change in operations of the Ghana school feeding programme to include the principles of good governance. It is also an indication that the institutions under which the school feeding works needs restructuring to meet the needs of people. To do this also involves the formulation and change in policies. Policies are considered the decisions of people in authority. Therefore a public policy is the decision of the government in whatever it decides to do or not to do for its people which is consistent with the law of the state (Shafritz et al., 2013). The decision to do and the act of doing are two different things in the field of administration. As the decision to do by government is public policy the act of doing what has been decided is termed public administration. To achieve what to do involves the design and implementation of appropriate public programmes. This also leads to the creation or realignment of organizations and agencies to put in to practice such a public policy. The success of policies depends on how practitioners are guided to implement the overall public policy. This involves the enactment of bye laws which serves as guide by way of institutional arrangements or realignment in the implementation of appropriate public policies. It can be done when appropriate institutions like the Ghana education service and the teacher are acknowledged giving meaning to a public programme like the school feeding programme.

7. Limitations of the study

The topic made it difficult to only emphasize on quantitative data in an in-depth examination of the phenomenon under study. It is always difficult to find the subjects or phenomenon that are similar for the

study. The inability to find a school feeding beneficiary school to conduct the research means that there cannot be a replacement. Inadequate subjects in the study can lead to poor measurement of cases. This can also be due to poor sampling frames which can affect the results of the study.

There is also little or no control over environmental influence in some of the variables under study using this method. Conditions of poverty differed from one community to the other. In this situation, the author was able to do his possible best to minimize the chances of the stated challenges that could hinder the process of the work and the possible effect on the research findings.

CRedit authorship contribution statement

Issah Iddrisu: Conceptualization, and design of study. Drafting the manuscript. **Ibrahim Mohammed Gunu:** Data curation, Formal analysis, and interpretation of data, Revising the manuscript critically for important intellectual content. **Nurudeen Abdul-Rahaman:** Funding acquisition, Data curation, Proof reading of the manuscript.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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