



Principals' Demographic Variables and Financial Management Effectiveness in Public Secondary Schools in Calabar Education Zone, Cross River State, Nigeria

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Abstract

This study investigated the influence of demographic variables on principals' financial management effectiveness in public secondary schools in Calabar Educational Zone of Cross River State. Ex post facto research design was adopted for the study. The study's population comprised 84 principals from the 84 public secondary schools in the study area; a census was carried out as the population was small and so manageable for the study. A 30-item, modified four option likert type questionnaire titled: Principals Financial Management Effectiveness Questionnaire (PFMEP) was used for data collection. Cronbach Alpha was used to ascertain the reliability of the instrument. Two null hypotheses were formulated and tested at .05 Alpha level using independent t-test and one way ANOVA statistical analysis technique. The result revealed that both gender and years of working experience significantly influenced principals' financial management effectiveness in terms of budgeting, generation of revenue, prioritization of funds, disbursement of funds and financial reporting. Based on the findings, it was recommended among others that principals should be encouraged to update themselves in financial management and accounting procedures through in service training and refresher courses.

Keywords: principal's demographic variables, financial management effectiveness and financial management in public secondary schools.

Introduction

Management of any organization is a continuous process involving a chain of command, equity, efficiency, stability and the delegation of authority. Nnabuo, Okorie and Agabi (2008) submit that educational management can also be seen as the totality of efforts that are brought to bear in the provision and delivery of education to ensure that both the human and financial resources allocated to education are used to the best advantage in the pursuit of educational objectives and goals.

Financial management is an integral part of school management and cannot be seen as a separate task to be left to financial staff. It involves bringing all the management element or skills available to the school administrator to bear on the management of finance of the school with the aim of achieving the purposes of secondary education. Financial management, according to Joubert and Bray (2007), deals with procurement of funds and their effective utilization in the school business. Financial management effectiveness in this study described the judicious use of available school funds for excellent carrying out of school activities at the right time. Effective financial management can only be achieved when there is a sound organizational plan. A plan in this context means having set objectives.

The nature of demographic variable has been the subject of considerable attention and extensive study by theorists like Traits theory by Herbert Spencer (1860). Spencer emphasizes that these 'great men' (principals) were not born great financial managers, they had the potential of being great financial managers just as the rest of the population, their management abilities have evolved from their education, experience and responsibilities combined with the social context in which they lived. Researchers like Acha (2009), Aguh (2008) and Besong (2002) in their study stated that personal and demographic variables such as sex, and work, experience could

combine to exert influence on the financial management effectiveness of school principals. In Cross River State and other states of the federation, the professional experience of Principals is an important qualification in leadership appointment. Academic qualification is a valuable extension of experience (Joubert, and Bray, 2007; Stanton, 2008).

School principals, who are entrusted with the school funds, are always faced with financial mismanagement crises. So much has been said by the public on poor management of financial resources in schools, which mainly leads to the loss of money and assets, resulting in shortage of fund for effective school administration. Some principals often face disciplinary committee for the misappropriation of school funds. In spite of some principals' years of administrative experience, they still find it difficult to manage school finances effectively. It is against this background that the researcher found it necessary to investigate the extent to which demographic variables namely, gender, and years of working experience influence Principals' financial management effectiveness in public secondary schools in Calabar Education Zone of Cross River State (Acha, 2009; Aguh, 2008; Besong, 2002).

The extent to which the secondary school system achieves its stated objectives depend greatly on the effective management of funds under the leadership of the Principal. The Principal is the chief executive of the school who pilots its affairs. The principal is accountable for the success and /or failure of the school. School Principals who are entrusted with these funds are always faced with financial mismanagement which mainly leads to the loss of money and assets, resulting in shortage of funds for effective school administration, inadequate provision of teaching and learning materials, deficit financial record, and untimely disbursement of funds. This also results in low standard of secondary education in Calabar Education Zone of Cross River State.

There have been allegations of mismanagement and embezzlement of school fees, Parent Teachers Association (PTA) funds among others, against school administrators. Improper use of school resources and embezzlement of school funds adversely affect non-achievement of school goals. Observation have shown that some Principals have poor capacity for forecasting financial requirement (budgeting), generating revenue, prioritization of funds, disbursement of funds and financial reporting (Aguh, 2008; Efrerakeya, 2008; Acha, 2009). There are controversies about the influence of demographic variables on Principals' financial management effectiveness. From the researchers' point of view, financial management effectiveness varies from one principal to another and from one school to another, and could be influenced positively or negatively by demographic variables such as gender, and years of working experience. Therefore, it is necessary to pose the question – how do demographic variables influence Principals' financial management effectiveness in public secondary schools in Calabar Educational Zone of Cross River State?

The following research questions guided the study;

1. How does gender of Principals' influence their financial management effectiveness in public schools?
2. To what extent do Principals' years of working experience influence their financial management effectiveness?

The following hypotheses were formulated for testing in the study,

1. Gender of Principals does not significantly influence their financial management effectiveness in public schools

2. Principals' years of working experience do not significantly influence their financial management effectiveness

Methodology

Ex post facto research design was adopted for the study. The area of study is Calabar Education Zone of Cross River State, Nigeria, which comprise seven Local Government Areas in the State. The population of the study comprised 84 principals comprising 50 males and 34 female principals from the 84 public secondary schools in the study area. The researchers made use of the intact population of the principals as the study sample, since they were a small population and so manageable. A 30 item modified likert type structured questionnaire titled: Principals' Financial Management Effectiveness Questionnaire (PFMEQ) was used for data collection. The questionnaire had two parts. Part 'I' had two items on principals' gender and principals' years of working experience. While part 'II' had five sections. A-E, with six items each designed to elicit responses from the principals' with respect to the six identified component of financial management effectiveness which are: Budgeting, revenue generation, prioritization of funds, financial reporting and disbursement of funds. The instrument was face validated and using Cronbach alpha method, the reliability estimates for the five sub-variables were determined. The reliability estimates ranged from .74 to .83 which was considered high enough to justify the use of the instrument for the study. The 84 copies of the questionnaire were administered to the 84 principals in the study area. With close supervision of the exercise by the researchers and four trained research assistants, all the copies of the questionnaire were returned for data analysis. All the hypotheses were tested at .05 alpha levels.

Results and Discussion

This section, concerns hypothesis by hypothesis presentation of results. Each hypothesis of the study was tested at .05 level of significance.

Hypothesis one

Gender of Principals does not significantly influence their financial management effectiveness. The independent variable is gender, categorized into male and female. The dependent variable is financial management effectiveness considered in the aspect of budgeting, generating revenue, prioritization of funds, disbursement of funds and financial reporting. To test the hypothesis, independent t-test was employed at .05 level of significance. The result is presented in table 1.

Table 1 showed that at .05 level of significance and degree of freedom 82, the critical t-value is 1.99. the calculated t-value obtained in computing the influence of gender on the five aspect of principals' financial management effectiveness are as follows: effectiveness in budgeting, $t = -5.71$ ($p < .05$), effectiveness in generating revenue, $t = 4.12$ ($p < .05$), effectiveness in prioritization of fund, $t = -3.95$ ($p < .05$), effectiveness in financial reporting, $t = -4.19$ ($p < .05$), effectiveness in disbursement of fund, $t = -2.02$ ($p < .05$). The calculated t-values were all seen to be greater than the critical t-value with the obtained significant values less than .05 level

of significance used in the study. With these results, the null hypothesis which stated that gender of principals does not significantly influence their financial management effectiveness was rejected.

Table 1: Independent t-test analysis of influence of gender on principals, financial management effectiveness

Variables	Principals		Mean	Std Deviation	T	p-level
	Gender	N				
Effectiveness in budgeting	Male	50	16.72	2.08	-5.71*	.000
	Female	34	19.06	1.41		
Effectiveness in generating revenue	Male	50	19.62	1.63	4.12*	.000
	Female	34	17.59	2.88		
Effectiveness in prioritization of fund	Male	50	17.02	1.90	-3.95*	.000
	Female	34	18.62	1.69		
Effectiveness in financial reporting	Male	50	17.18	2.66	-4.19*	.000
	Female	34	19.41	19.41		
Effectiveness in disbursement of fund	Male	50	16.26	1.71	-2.02*	.047
	Female	34	17.15	2.31		

*p<.05; df=82; critical t=1.99

It was therefore accepted alternately that gender of principals does significantly influence their financial management effectiveness in terms of budgeting, generating revenues, prioritization of fund and financial reporting.

The direction of the difference was considered with mean values which determined whether t-value is positive or negative. Regarding effectiveness in budgeting, the male respondents which are group 1 obtained mean value of 16.72, the female respondents which are group 2 obtained mean value of 19.06. The mean value of the female respondents was seen to be greater than that of male respondents. More so, the t-value was seen to be significant and negatively signed, indicating that the group 2 respondents significantly differ from the group 1 respondents in their effectiveness in budgeting. This showed that female principals are better in budgeting than their male counterparts.

Regarding effectiveness in generating revenue, the male respondents obtained mean score of 19.2 while female respondents obtained mean score of 17.59. The mean score of the male is seen to be greater than that of the female. The t-value is significant and positively signed indicating that the group 1 which are male significantly differ from the female in their revenue generation. This implied that male principals are more effective in generating revenue than the female principals.

In reference to effectiveness in prioritization of fund, the male respondents obtained mean score of 17.02 while the female respondents obtained mean score of 18.62. The mean score of the female was seen to be greater than that of male. Negative t-value was seen indicating that group 2 which are female significantly differ from group 1 in their responses to effectiveness in prioritization of fund. This implied that female principals are better in prioritization of fund than male principals. Regarding effectiveness in financial reporting, the male respondents obtained mean score of 17.18 while female respondents obtained mean score of 19.41.

The mean score of the male is seen to be less than that of the female. The t-value is significant and negatively signed, indicating that groups 2, which are female, significantly differ from the male in their financial reporting. This implied that female principals are more effective in the reporting than the male principals. In regards to effectiveness in disbursement of fund, the male respondents obtained mean score of 16.26 while the female respondents obtained mean score of 17.15. The mean score of the female was seen to be greater than that of male. Negative t-value was observed indicating that group 2 which are female significantly differ from group 1 in their responses to effectiveness in disbursement of fund. This implied that female principals are better in disbursement of fund than male principals.

Hypothesis two

Principal's years of working experience do not significantly influence their financial management effectiveness in terms of budgeting, generating revenues, prioritization of funds disbursement and financial reporting.

To test the hypothesis, one-way analysis of variance (ANOVA) was employed at .05 level of significance. The result is presented in presented in table 2. The descriptive statistics of the influence of principals' years of administrative experience on their financial effectiveness management is shown in table 2.

Table 2 showed that at .05 level of significance and degree of freedom 3 and 80, the critical f-ratios is 2.72. The calculated f-ratios obtained in computing the influence of principals years of administrative experience on five aspect of financial management effectiveness are as follows: effectiveness in budgeting, $f=10.19$ ($p<.05$), effectiveness in generating revenues, $f=0.54$ ($p>.05$), effectiveness in prioritization of fund, $f=14.63$ ($p<.05$), effectiveness in financial reporting, $f=11.30$ ($p<.05$), effectiveness in disbursement of funds, $f=8.25$ ($p<.05$).

The calculated F-ratios were greater than the critical F-ratio in four aspects of financial management effectiveness, viz: effectiveness in; budgeting, prioritization of fund, financial reporting and disbursement of fund. However, the calculated F-ratio in the aspect of effectiveness in generating revenue was seen to be less than the critical F-ratio with the obtained significant value greater than .05 level of significance.

With these results, the null hypothesis which stated that principals' years of administrative experience does not significantly influence their financial management effectiveness was rejected regarding four aspects of financial management effectiveness in budgeting, prioritization of fund, financial reporting and disbursement of fund. The null hypothesis was accepted with regard to effectiveness in generating revenue.

It was therefore accepted alternately that principals' year of administrative experience significantly influence their financial management effectiveness in terms of effectiveness in: budgeting, prioritization of fund, financial reporting and disbursement of fund. It can be also accepted that principals' years of administrative experience does not significantly influence their effectiveness in generating revenue.

Given significant F-ratios in the four aspects of principals' financial management effectiveness, a post hoc test was carried out using Fishers Least Significant Difference (LSD) multiple comparison tests. This is to ascertain the groups that significant variations occur using pair-wise comparison of the four response categories. This is presented in Table 4.

Table 2: Description statistics of influence principals' years of administrative experience on their financial management effectiveness

Financial management effectiveness	Administrative experience	N	Mean	Std. Deviation
Effectiveness in budgeting	Below 6 years	14	15.71	2.05
	6-10 years	33	17.27	1.91
	11-15 years	22	18.45	1.47
	Above 15 years	15	19.20	2.14
	Total	84	17.67	2.16
Effectiveness in generating revenue	Below 6 years	14	19.29	1.73
	6-10 years	33	18.94	2.41
	11-15 years	22	18.68	2.23
	Above 15 years	15	18.20	3.26
	Total	84	18.80	2.42
Effectiveness in prioritization of fund	Below 6 years	14	16.36	1.82
	6-10 years	33	16.85	1.42
	11-15 years	22	18.41	1.50
	Above 15 years	15	19.60	1.92
	Total	84	17.67	1.97
Effectiveness in financial reporting	Below 6 years	14	15.71	2.95
	6-10 years	33	17.45	1.99
	11-15 years	22	19.59	2.32
	Above 15 years	15	19.47	1.88
	Total	84	18.08	2.63
Effectiveness in disbursement of fund	Below 6 years	14	15.93	1.38
	6-10 years	33	16.09	1.68
	11-15 years	22	16.45	1.74
	Above 15 years	15	18.67	2.35
	Total	84	16.62	2.01

Table 4 indicated that with regards to effectiveness in budgeting, the comparison of principals whose administrative experience are below 6 years with the ones that their administrative experience are 6-10 years showed less mean score from those below 6 years with significant t-value of -3.69 ($p < .05$). The comparison of those that their administrative experience are below 6 years and those their administrative experience fall within 11-15 years showed a less mean score from those below 6 years with significant t-value of -5.70 ($p < .05$). The comparison of those that their administrative experience are below 6 years with those that their administrative experience are above 25 years show a less mean score from those below 6 years with significant t-value of -6.30 ($p < .05$). The comparison of those that their administrative experience are 6-10 years and those their administrative experience fall within 11-15 years showed a less mean score from those that are within 6-10 years' experience with significant t-value of -2.71 ($p < .05$).

The comparison of those that their administrative experience are 6-10 years with those that their administrative experience are above 15 years showed a less mean score from those of 6-10 years with significant t-value of -3.75 ($p < .05$). The comparison of those that their administrative experience are 11-15 years with those that their administrative experience are above 15 years showed a less mean score from those of 11-15 years with significant t-value of -1.14 ($p > .05$). These implied that the higher principals administrative experience, the higher their effectiveness in budgeting. These showed that more experienced principals are more effective in their budgeting than the less experienced principals.

Table 3: One-Way Analysis of Variance (ANOVA) of influence of Principal's 'years of administrative experience on their financial Management effectiveness

Financial management effectiveness	Sources of variation	Sum of scores	Df	Mean Scores	F-ratio	p-level
Effectiveness in budgeting	Between groups	107.41	3	35.80	10.18*	.000
	Within groups	281.26	80	3.52		
	Total	388.67	83			
Effectiveness in generating revenue	Between groups	9.65	3	3.22	0.54	.657
	Within groups	477.1	80	5.97		
	Total	487.56	83			
Effectiveness in prioritization of funds	Between groups	114.29	3	38.10	14.63*	.000
	Within groups	208.37	80	2.60		
	Total	322.67	83			
Effectiveness in financial reporting	Between groups	170.33	3	5.03		
	Within groups	402.09	80			
	Total	572.42	83			
Effectiveness in disbursement of fund	Between groups	79.37	3	26.46	8.25*	.000
	Within groups	256.44	80	3.2		
	Total	335.81	83			

*p<.05; df3, 80: critical F=2.72

Table 4: Fishers Least Significant Difference (LSD) multiple comparison test of influence principals ' years of administrative experience on their financial management effectiveness

Financial management effectiveness	Administrative experience	Below 6 (n=14)	6-10yrs (n=33)	11-15yrs (n=22)	Above 15 (n=15)
Effectiveness in budgeting	Below 6 years	15.71*	-1.56 ^b	-2.74 ^b	-3.49 ^b
	6-10 years	-3.69* ^c	17.27 ^b	-1.18 ^b	-1.93 ^b
	11-15 years	-5.70* ^c	-2.71* ^c	18.45 ^a	-0.75 ^b
	Above 15 years	-6.30* ^c	-3.75* ^c	-1.40 ^c	19.20 ^a
				Msw =	3.52
Effectiveness in prioritization of fund	Below 6 years	16.36 ^a	-0.49 ^b	-2.05 ^b	-3.24 ^b
	6-10 years	-1.27 ^c	16.85 ^a	-1.56 ^b	-2.75 ^b
	11-15 years	-4.71* ^c	-4.05* ^c	18.41 ^a	-1.19 ^b
	Above 15 years	-6.55* ^c	-6.09* ^c	-2.54* ^c	19.60 ^a
				Msw =	2.60
Effectiveness on financial reporting	Below 6 years	15.71 ^a	-1.74 ^b	-3.88 ^b	-3.24 ^b
	6-10 years	-3.68* ^c	17.45 ^a	-2.14 ^b	-2.75 ^b
	11-15 years	-7.08* ^c	-4.20* ^c	19.59 ^a	-1.19 ^b
	Above 15 years	-5.89* ^c	-3.33* ^c	0.20 ^c	19.60 ^a
				Msw =	2.60
Effectiveness in disbursement of fund	Below 6 years	15.93 ^a	-0.16 ^b	-0.53 ^b	-2.74 ^b
	6-10 years	-0.40 ^c	16.09 ^a	-0.36 ^b	-2.58 ^b
	11-15 years	-1.13 ^c	-0.87 ^c	16.45 ^a	-2.21 ^b
	Above 15 years	-5.13* ^c	-5.21* ^c	-4.35* ^c	18.67 ^a
				Msw =	3.21

Pair-wise comparison in aspect of prioritization of fund, financial reporting and disbursement of fund also indicated that more experience principals are, the more effective in their financial management related activities.

* $p < .05$

^a. Group means are placed on the diagonal

^b. Difference between the group means are placed above the diagonal

^c. Fishers LSD t-value are placed below the diagonal

Discussion of findings

The discussion is based on the findings of the study and it will be done on a hypothesis-by-hypothesis basis.

The result of this study revealed that gender of principals significantly influences their financial management effectiveness in terms of budgeting, generating revenue, prioritization of funds disbursement and financial reporting. The study's finding is in line with that of Petty (2001) who reported that female principals rated higher than male principals in terms of financial planning task factors. Ogbodo (2002) in this study revealed that a significant distinction existed between male and female principals in their managerial effectiveness of schools' resources. Bassey, Mbipom and Akuegwu (2003) also revealed that female principals were better managers of schools' finances. However, Ita (2008) and Aguh (2008) in their separate studies, both reported that there was no significant differences between male and female head teachers in their overall management effectiveness of schools' resources. The result of this study revealed that principals' working experience significantly influence their financial management effectiveness in terms of budgeting, prioritization, disbursement of funds and financial reporting, but does not significantly influence management effectiveness in terms of generating revenue.

The study's finding is in consonance with that of Efrerakaya (2003) who found out that old hands were better than new hands in terms of achieving financial management in schools. Fagbamiye (2005) revealed that inexperience principals were less equipped than experienced ones to manage financial resources in school. Schmidt, Kosmosk and Pallack (2007) also reported that head teachers perfected their managerial capabilities as they put in more years on their job. Acha (2009), in this study found out that head teachers gained more awareness of financial management as years passed by on their job. On the other hand, Otudor (2004) revealed an insignificant influence of years of experience on a head teacher's job involvement. Vitouras (2006) also reported that years of experience had no significant influence on principal's managerial capabilities.

Conclusion

In the light of the findings of the study, it can be concluded that demographic factors such as gender and years of working experience influence principals' financial management effectiveness in public secondary schools. The underlying fact is that these factors showed significant influence on some of the dimensions of the principals' financial management effectiveness considered in the study.

Recommendations

Arising from the findings and conclusion, it is recommended that;

1. Appointment to principalship position should consider experience on teaching job as a core requirement

2. Principals should be encouraged to undergo in-service and refreshers courses to update their knowledge and skills in school financial management and school accounting procedures
3. Government or its agency, the education school board should appoint more female as principals to head secondary schools in Calabar Education Zone.

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