

Effect of Enterpreneurial Orientation on the Performance of Income Generating Activities in Public Secondary Schools in Murang'a South Sub-County, Kenya

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Abstract

The study aimed at explaining the role of entrepreneurial orientation of the schools to the financial performance of income generating operations for educational institutions in Kenya. Public secondary schools were selected for this study because of the problems they face, their countrywide distribution and that they are a homogeneous group of schools with the same governing policy and philosophy. Public Secondary Schools depend on fees and government funding as their only sources of income. Educational programs cannot continue successfully without extra financing. Most public Secondary Schools have developed enterprises to generate extra income but most do not succeed. Forty public secondary schools within Murang'a south sub-county constituted the population of study. A complete enumeration of the schools was done. Primary data was gathered using questionnaires. The data gathered was sorted, edited, coded and summarized. Statistical Package for Social Sciences (SPSS) version 21 was used in data analysis. Descriptive statistics, correlation and multiple regression models were used to examine the relationship. The study found that proactive financial management and entrepreneurial motivation significantly determine IGA performance in public secondary schools. The findings are important to the ministry of education and other stakeholders.

Key words: proactive financial management, entrepreneurial motivation

Background of the Study

Provision of quality secondary education is important in generating the opportunities and benefits of social and economic development as envisaged in vision 2030. In Kenya, the educational needs for secondary education have increased due to the introduction of Free Primary Education in 2003 and free secondary Education in 2008. This increased transition rate. Secondary enrolment has grown from 0.9 million in 2004 and is expected to reach 2.7 million by 2015. The government is required to commit more resources towards education for recurrent and physical infrastructure expansion. Public secondary school financing is predominantly recurrent expenditure that goes to salaries while the proportion of secondary non-salary expenditure, including bursaries and development was estimated at 6.5 percent, implying high parental/guardian financing mainly through school fees. One way of helping mitigate high school fees is through schools initiating alternative sources of income and stringent budgetary control (Gongera & Okoth, 2013).

Income from IGA supplements school fees and government funding. It is used to pay salaries for BOG teachers, support staff, student motivation, purchase of teaching and learning materials and also improvement of physical facilities (Omukoba, Simatwa & Ayodo, 2011;Gongera & Okoth, 2013). IGA can be divided into three categories agricultural, service and commercial. Agricultural based IGAs are involved in poultry, dairy cows, horticultural produce. They face the following challenges glut, disease, pest, market competition and high maintenance costs. On the other hand, services based IGAs are involved in hire of bus, hire of furniture, hire of fields, hire of halls, school equipment such as tents. They face the challenges of wear and tear and also fast depreciation. Finally, commercial based IGAs are involved in canteen, posho mills and bakery. Poor record management and market competition hinder the performance of commercial IGAs (Omukoba, Simatwa & Ayodo, 2011). Agricultural IGAs are prevalent because potentially productive land is available especially in rural secondary schools. Further, with agriculture being a Kenya Certificate of Secondary Education (KCSE) examination subject, students apply agricultural theory to practice on school land.

Statement of the Problem

The government of Kenya implemented a cost-sharing policy in education. The main problem with the cost-sharing policy is the marginalization of children from poor families, who cannot pay school fees. With about one-half of the Kenyan population living below the poverty line, financing secondary education has been a nightmare for

many households. This challenge implies that cost-sharing marginalizes the very poor segment of society that really needs secondary education to open opportunities for work and further training (Onsomu, Muthaka, Ngware, & Kosimbei, 2006).

In this regard, secondary schools have been urged to initiate income-generating projects to support their budget deficits. Such projects are expected to help schools generate additional resources, cut down operational costs, and finance other activities at the school level. It is also expected to reduce the burden of education financing on parents or guardian, by enabling schools to finance part of their operational costs from self-generated funds without necessarily passing the burden to parents. Some schools have initiated IGA projects, others are still planning to do so (Jacobson, 2014).

Research Objective

- i. Determine the relationship between proactive financial management and performance of income generating activities in public secondary schools in Murang'a South sub-county.
- ii. Establish the relationship between entrepreneurial motivation and performance of income generating activities in public secondary schools in Murang'a South Sub-county.

Research Methodology

The target population consisted of all the public secondary schools in Murang'a South Sub-county. There are 40 public secondary schools in Murang'a South Sub-county (GOK, 2013). This study conducted a census of the whole population of public secondary schools in Murang'a South sub-county. The target respondents were forty principals since they are routinely in charge of IGAs. The study used questionnaires to collect primary data. The questionnaire was first piloted in four schools. Finally, thirty six (36) self administered questionnaires were delivered on a 'drop and pick later' basis to the school's principals and were collected after one week.

Results of the Study

Out of the 36 questionnaires distributed, 32 were received; a response rate of 89%. The school heads used in the pilot test were not included in the final study. A response rate of 50% or more is adequate (Mugenda & Mugenda, 2003). Descriptive, correlation and regression analysis were conducted using SPSS version 21.

Table 1: Pilot test reliability analysis

Scale	Number of Items	Cronbach's Alpha (α)
Proactive financial management	7	0.796
Entrepreneurial motivation	4	0.716

Reviewing results in Table 1 show that the likert scales questions on proactive financial management and entrepreneurial motivation were reliable since the Cronbach's alpha reliability coefficients were all greater than 0.7. The rule of the thumb for Cronbach's alpha is that the closer the alpha is to 1, the higher the reliability (Kothari, 2009). Infact, Cronbach's alpha of less than 0.5 is unacceptable, between 0.5 and 0.6 is poor, between 0.6 and 0.7 is questionable, between 0.7 and 0.8 is acceptable, between 0.8 and 0.9 is considered good while over 0.9 is excellent (George& Mallery, 2003).

Table 2: Responses on proactive financial management

Item	NU	LF	MF	HF	VHF %	Mean	Std.
	%	%	%	%			Dev
Budgeting for the expenses of the IGA	10.5	15.8	47.4	10.5	15.8	3.05	1.117
Keeping financial record for the IGA expenses	0	15.8	57.9	21.1	5.3	3.16	0.765
Transfer pricing i.e. selling the produce to the next unit at a profit	10.5	47.4	26.3	10.5	5.3	2.53	1.020
Projecting yield and profit from the IGA	5.3	47.4	21.1	15.8	10.5	2.79	1.134
Paying employees attached to the IGA salary duly	26.3	15.8	5.3	36.8	15.8	3.00	1.528
Computing actual profit or Loss from the IGA	10.5	36.8	36.6	10.7	5.3	2.63	1.012
Variance analysis between budget and actual	10.5	31.6	31.6	26.3	0	2.74	0.991

n = 32, Cronbach's alpha= 0.796; NE = never used, LF = Low frequency, MF = Moderate frequency, HF = High frequency, VHF = Very High frequency

The reliability coefficient for all the seven items is Cronbach's Alpha of 0.796 which is acceptable (between 0.7 and 0.8). The aggregate proactive financial management has a mean of 2.83. Results in Table 2 show that majority of the respondents did not properly budget for the IGAs (74%) and did not keep proper records (74%) of the IGAs. Transfer pricing, computation of profit variance are also poorly done with 84% below mean the aggregate mean. Yield projection was also done poorly with 74% below the aggregate mean. Respondent took a neutral position with respect to payment of salaries (mean =3). Computation of budget variance was also poorly done with 74% below mean the aggregate mean. A study by Nkosi (2010) found the need for capacity building; train IGAs management of simple management accounting especially use of business ratio. Respondents in Nkosi (2010) study isolated that financial management as the best training they would like to attain.

Table 3: Responses on entrepreneurial motivation

	NE	LF	MF	HF	VHF	Mean	Std.
Item	%	%	%	%	%		Dev
Hiring trained personnel for the IGA	63.2	31.6	5.3	0	0	1.42	0.607
Training the personnel attached to the IGA	52.6	26.3	15.8	5.3	0	1.74	0.933
Production of routine performance report on the IGA	42.1	42.1	10.5	5.3	0	1.79	0.855
Motivating the personnel running the IGA	21.1	31.6	31.6	15.8	0	2.42	1.017

n = 32, Cronbach's alpha= 0.716; NE = never used, LF = Low frequency, MF =Moderate frequency, HF = High frequency, VHF= Very High frequency

The finding in Table 3 indicate that the respondents have low entrepreneurial motivation (mean = 2.3). Motivating IGAs staff scored the highest, followed by production of reports and personnel training. Hiring trained personnel has the lowest mean (1.42). Consistent with Kamunge, Njeru and Tirimba (2014), this study found that respondent did not get proper training on how to run the IGAs. A study by Kibe (2013) found 27.5% of the respondent had not attended any formal training. Osinde, Iravo, Munene & Omayio (2013) found most of the enterprenuers did not attend training services. Formal training is important because specific enterprise needs are imparted unlike in informal training. A study by Aniggadwita & Mustafid (2014) concluded that competence of HR has a significant effect on performance of SMES.

Table 4: ANOVA- Performance and proactive financial management

	F	Sig	Pearson corr	Sig.
Total revenue	4.022	0.032	0.727	0.001
Total expense	3.848	0.043	0.379	0.000
Net profit	4.730	0.038	0.738	0.000

Reviewing Table 4 reveals that proactive financial management practices are associated with performance since these parameters were statistically significant ($p < 0.05$). Pearson correlation results in Table 4 supports the significant relationship; it is strong and positive.

Table 5: ANOVA- Performance and entrepreneurial motivation

	F	Sig	Pearson corr.	Sig.
Total revenue	4.796	0.018	0.539	0.017
Total expense	3.947	0.032	0.405	0.008
Net profit	4.749	0.038	0.386	0.003

Reviewing Table 5 reveals that entrepreneurial motivation practices are associated with performance since these parameters were statistically significant (p -values < 0.05). Pearson correlation results in Table 5 supports the significant relationship; it is strong and positive. Aniggadwita & Mustafid (2014) studied HRM practises in SMEs;

they found that once incentive pay and training are aligned with the strategic goals on the enterprise performance is enhanced. Aniggadwita & Mustafid (2014) also concluded that entrepreneurial motivation has significant and positive effect on performance. Finally, a study by Mairura, Namusonge and Karanja (2013) found that SMEs needed technical training.

Table 6: Correlation matrix

		1	2	3
1	NET PROFIT	1		
2	Proactive financial management	0.822**	1	
		0.000		
3	Entrepreneurial motivation	0.502*	0.760**	1
		0.028	0.000	

Correlation is significant at the 0.01 level and 0.05 level*; N=32

Results in Table 6 show that there was a positive correlation between all the study variables. The strongest positive correlation was between net profit and proactive financial management (0.822). All the correlations were significant. The correlation coefficients between independent variables were less than 0.9. Therefore, no variable was excluded because of multi-collinearity.

Analyzing Table 6 shows that there is a strong and positive correlation ($R = 0.822$, p -value = 0.000) between proactive financial management and performance while Table 7 indicated that proactive financial management explains 67.5% of the variation in performance. It follows that other factors outside proactive financial management explain 32.5 % of variation in performance.

Table 7: Regression results of proactive financial management and performance

Model	Sum of squares	Df	Mean square	F	Sig.
Regression	36484.15	1	36484.15	35.303	0.000
Residual	17568.88	31	10334.61		
Total	54053.03	32			

R= 0.822, R² = 0.675, ΔR² = 0.656

The model to be tested was

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon_i \dots\dots\dots \text{Equation (1)}$$

Where:

Y= financial performance

β_0 = level of financial performance in the absence of proactive financial management

β_1 = intercept for proactive financial management

X_1 = proactive financial management

ε_i = error term

The model was found to be valid (F (1, 32) = 35.303; p-value = 0.000). Details of the model are found in Table 8. The fitted model equation using the standardised coefficients is $Y = + 0.822X_1$

Table 8: Regression coefficients of proactive financial management and performance

Model	Unstandardized Beta(β)	Standard error	Standardized Beta(β)	t	Sig.	VIF
Constant	25024	8762		2.856	0.011	
PFM	17734	2984	0.822	5.942	0.000	1.000

PFM = Proactive financial management

Analyzing Table 6 shows that there is a strong positive correlation ($R = 0.502$, p -value = 0.028) between entrepreneurial motivation and net profit while Table 9 indicated that entrepreneurial motivation explains 25.2 % of the variation in financial performance. it follows that other factors outside proactive financial management explain 74.8 % of variation in financial performance.

Table 9: Regression results of entrepreneurial motivation and performance

Model	Sum of squares	Df	Mean square	F	Sig.
Regression	13644.13	1	13644.13	5.740	0.028
Residual	40408.87	31	23769.92		
Total	54053.00	32			
R = 0.502, $R^2 = 0.252$, $\Delta R^2 = 0.208$					

The model to be tested was

$$Y = \beta_0 + \beta_2 X_2 + \varepsilon_i \dots\dots\dots \text{Equation (2)}$$

Where:

Y = financial performance

β_0 = level of financial performance in the absence of entrepreneurial motivation

β_2 = intercept for the independent variable

X_2 = entrepreneurial motivation

ε_i = error term

The model was found to be valid ($F(1,32) = 5.740$, p -value = 0.028). Details of the model are found in Table 10. The fitted model equation using the standardised coefficients is $Y = 0.502X_2$.

Table 10: Regression coefficients of entrepreneurial motivation and performance

	Unstandardized	Standard	Standardized			
Model	Beta(β)	error	Beta(β)	t	Sig.	VIF
Constant	827.011	10755		0.077	0.000	
EM	10544.53	4401	0.502	2.396	0.028	1.000

EM = Entrepreneurial motivation

The general model that used was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon_i \dots \dots \dots \text{Equation (3)}$$

Where:

Y = Performance

X_1 = proactive financial management

X_2 = entrepreneurial motivation

β_0 is the level performance in absence of the independent variables

β_1, β_2 are intercepts for the independent variables

ε_i = error term

Table 11 indicated that entrepreneurial orientation explains 71 % of the variation in net profit. It follows that other factors outside entrepreneurial orientation of the school explain 19 % of variation in net profit. The regression results of proactive financial management and entrepreneurial motivation regressed against performance are presented in Table 12

Table 11: Regression results of entrepreneurial orientation on performance.

Model	Sum of squares	Df	Mean square	F	Sig.
Regression	39531	2	13177	19.625	0.001
Residual	13668	30	11389		
Total	53198	32			

R = 0.843, $R^2 = 0.710$, $\Delta R^2 = 0.674$

The model was found to be valid ($F(2,32) = 19.625$, $p\text{-value} = 0.001$). Details of the model are found in Table 12. The fitted model equation using the standardised coefficients is $Y = 1.042X_1 + 0.290X_2$.

Table 12: Regression coefficients of entrepreneurial orientation.

Model	Unstandardized	Standard	Standardized		Sig.	VIP
	Beta(β)	error	Beta (β)	t		
Constant	24447.809	8535.884		2.213	0.000	
PFM	22491.078	4471.199	1.042	3.134	0.000	1.104
EM	6082.412	4347.235	0.290	0.992	0.004	1.033

PFM = proactive financial management, EM = Entrepreneurial motivation

The outcome of the multiple regression show that the components of these variables have strong correlation to ($R = 0.843$), and high predictive power ($R^2 = 0.710$) on, performance. The model was found to be valid ($F(2,32) = 19.625$, $p\text{-value} < 0.000$). Variance Inflation Factors (VIF) were almost 1.0 suggesting there is no problem of multicollinearity.

Conclusions of the Study

Proactive financial management was found to significantly explain 67.5 % of variance in IGA performance (Table 7). Proactive financial management and IGA performance have strong and positive ($\beta_1 = 0.822$) correlation meaning IGA performance increases by 0.822 when proactive financial management improves by a unit.. Therefore research objective one; to determine the relationship between proactive financial management on IGA performance of IGAs in public secondary schools in Muranga south sub-county is achieved and conclude that proactive financial management has a significant effect on financial performance.

The findings reveal that entrepreneurial motivation significantly explains 25.2% of the variation in IGA performance (Table 9). Entrepreneurial motivation and IGA performance have medium-strong and positive ($\beta_2 = 0.502$) correlation meaning as entrepreneurial motivation improve by a unit, IGA performance increase by 0.502. Therefore, research objective two; to establish the relationship between entrepreneurial motivation on performance of IGAs in public secondary schools in Muranga south sub-county is achieved and concluded that entrepreneurial motivation

has a significant effect on financial performance. When proactive financial management and entrepreneurial motivation are regressed against financial performance, R^2 was 71% as indicated in Table 11. This means the two variables jointly can explain 71 % of performance of IGAs

The findings explain the the relationship between proactive financial management and entrepreneurial motivation and performance of IGAs in schools in Murang'a South Sub-county. The findings are important on the funding policy by the government. They are more urgent in view of the current jubilee government plans to make public secondary education free.

Recommendations of the Study

School heads need to have current and relevant information on the IGAs. This can be achieved by attending short courses, seminar, conferences and workshops where this information can be accessed. On record keeping, school will need to use the service of external specialist such as practising public accountants for advice. Most of the schools reported low supplementary income. The government should boost financing of public schools in view of the the dismal net profit. The government should do proper auditing of the IGAs especially the service one like school buses.

Areas for Future Research

This study examined the public schools only. Future studies need to target private secondary schools, primary schools, tertiary institution and even universities. There is also need to examine the moderating effect of school characteristics in the relationship between entrepreneurial orientation and performance of IGAs in schools. The current study was cross-sectional; there is need to do a longitudinal study on IGAs.

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