

Influence of Income Generating Activities on Academic Performance in Public Secondary Schools in Ainamoi Sub-County, Kericho County, Kenya

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Abstract- Income generating activities (IGAs) are financial sources in public secondary schools that supplement the government education budget and school fees. However, there is little documentation on their contribution, effect and influence on academic performance in public secondary schools in Ainamoi Sub-county. The general objective of this study is to investigate the contribution of IGAs on the academic performance of public secondary schools in Ainamoi Sub-county. In this study resource dependence theory was used which suggested that there are various resources which an organization utilize from the external environment, therefore, these resources must be utilized properly since poor utilization of resource would affect the achievement of organizational goals threatening the progress of the organization. The researcher used descriptive research design which enhanced the quality of information yielded. The target population was 29 public secondary schools who were censused and the respondents were 29 principals and 29 bursars who are mainly involved in IGAs in public secondary schools. The findings of this study indicated that IGAs' funds influenced academic performance considerably positive to varied degree on different schools. It was found that types of IGAs significantly affected academic performance though there was no significant relationship between funds obtained from IGAs and academic performance. The research concluded that the school agricultural based IGAs were more beneficial to agriculture and biology students in enhancing their academic endeavours. It is recommended that secondary schools should consider the types of IGAs that not only assist the school to improve performance educationally but also academically.

IGAs are not linked directly to the academic performance with exception of schools who practice agricultural activities which adds academic knowledge in agriculture. Most IGAs affect the resource allocation and hence create a good learning condition for better performance. In this study the IGAs to be investigated include agricultural, commercial and service related activities in public secondary school in Ainamoi Sub-county, Kericho county. Regionally, a recent study on school-based income generating projects and student's retention rate in secondary education by Nyangaresi, Onderi and Mwebi (2016) in Tanzania found out that secondary schools had various IGAs with majority of them engaging in agricultural based projects; other activities were hiring out of school facilities such as school bus, hall, tents, fields for recreation and houses for renting to raise extra income. In Namibia, a study done by Kavetuna (2013) on the uses of IGAs and perceptions of beneficiaries indicated that the additional funds generated from IGAs became useful in financially rewarding stakeholders, improving working conditions and quality of work tools and in promoting a sense of respect and appreciation.

Local reviews have been done in relation to IGAs and performance of school finance. A study in Kenya on impact of IGAs in generating finances for public secondary schools in Murang'a South District in Murang'a county by Kigotho (2012) revealed that some schools involved in IGAs, including dairy, poultry keeping and fish farming to raise income to boost school finances and carry out school activities. A study by Lwakasana and Getange (2017) in Trans Mara sub-county public secondary schools, Narok county, Kenya showed that revenue from IGAs reduces financial obligation of the parents, intensification academic performance, improved enrolment, and encouraged teachers and students. A study on the substitute funds' sources for free day secondary education in Kisii Central district in Kenya conducted by Getange, Orodho and Onkeo (2014) found out that school based IGAs played an important role in reducing fee deficits; thus, making the management of the schools easier.

The overall mean score in Ainamoi has been standing low for length of time with no improvement from the trend from 2013-2018. Despite, Government subsidy on secondary school education to boost scores in schools, performance in most public secondary schools in Ainamoi sub-county still remain below average. It is from this scenario that the researcher will be inspired to conduct the current study because none of the studies have attempted to research on the influence of IGAs on improvement of academic performance as evidenced by students' results in KCSE examination in most Ainamoi sub-county's public secondary schools. According to Wambua (2015) the inadequate teaching

I. BACKGROUND OF THE STUDY

Income Generating Activities (IGAs) in learning institutions have become popular in the entire world. This is due to the fact that the demand for education has increased internationally hence resulting to economic and physical pressures on resources being miss-matched with the demand for education (World Bank, 1994 cited in World Bank, 2010). The study conducted by World Bank (2010) in china found out that all state funded secondary schools carried out income generating activities. The aim was for these institutions to raise extra income to supplement the state allocated resources. These activities included school-run horticultural firms, factories, printing press, operating retail shops within the school and renting unused school classrooms. These institutions also raised funds from activities like farming and rearing of livestock.

and learning resources have affected most Kenyan public school which is a factor that is depicted by the poor performance in Ainamoi Sub-County. In other related study showed the same issue affecting the performance of school in Kitui based on resources inadequacy (Mwendwa, 2015).

There are few policies on IGAs which would have assisted in management of these properties in public secondary schools. According to education act (2012) the board of management has the prerogative to suggest, manage and distribute resources obtained from IGAs. This would also have assisted on management of school resources hence this study is crucial to the Government of Kenya.

1.2 Statement of the Problem

Globally, education is every child's right, and it is part of Kenya's human rights legislation as well. Kenya as a developing country has tried the best to provide basic education with subsidized secondary school fees and free primary education. This has overwhelmed the government affecting budgetary allocation for education. Despite the government of Kenya subsidizing public secondary school education, there is decline of academic performance. This is linked to inadequate learning resources in most of the public secondary schools as cited by various researchers (Wambua, 2015 & Mwendwa, 2015). It is imperative therefore, that public secondary schools should find alternative means of generating extra income to support their academic programmes and improve the learning resources. There is few research on the effects of IGAs on academic performance. IGAs have the potential to generate financial resources which may be utilized by the public secondary schools to support their academic activities for the purpose of increasing enrolment, transition rate and improve performance through achievement of necessary teaching resources. This study consequently was to establish the contribution of IGAs to academic performance in public secondary schools in Ainamoi Sub-county, Kericho County.

The purpose of the study was to establish the influence of different types of income generating activities on academic performance of public secondary schools in Ainamoi Sub-County.

II. TYPES OF INCOME GENERATION ACTIVITIES AND ACADEMIC PERFORMANCE

Income generation is any activity geared towards reducing poverty by providing alternative resources to the society through creation of employment and increasing economic activities with an aim of increasing the individual's ability to generate money in order to improve his standard of living (Muhammad, Khan & Farah, 2006). He further alleges that these intercessions can be carried out in different ways, for example through providing affordable microfinance credit programs to the citizens who normally cannot afford to approach banks for loans since they do not qualify.

Promoting Equality in African Schools (PEAS) indicated that IGAs provides PEAS with an opportunity to learn vocational skills and provide additional resources for the institution. PEAS presently have a number of IGAs running in the institution and are now anticipating to set up more this year. For instance, these institutions have not only embraced beekeeping facility but also produces interlocking stabilized soil bricks (ISSB). The soil bricks

are used to build classroom blocks across the PEAS schools. More so most PEAS schools engage in lucrative IGAs including brick making, forestry and dairy/biogas production. PEAS schools also have an internal market for school uniforms for new students every year and this is a project that could generate a lot of revenue for a school, which could then be re-invested. PEAS focuses on business ideas that can exploit the existence of the PEAS internal market as well socially or ecologically responsible enterprise (Smartaid School in Africa, 2019).

Chepkwony (2018) investigated on determinants of implementation of income generating projects in public secondary schools in Konoin District with the locality of Bomet County. The study main purpose was to investigate determinants for implementing income generating projects in public secondary school. Survey design was implemented on principals of public secondary school where questionnaires were used to collect data. The findings indicated that income generating project significantly improved the financial resource, physical facilities, low job transfer, low political influence in IGP as well as assisted tendering for IGP supplies. It recommended that IGPs should be able to assist payment of school fees to needy students, subsidizing school fees, school development and equitable resource distribution within school projects.

Onesmo and Koda (2018) found that school shop; enables heads of schools to supply important commodities for the staff and students, which in turn helped the schools to ensure constant profit from such trade activity available school-based IGAs in secondary schools managed by Catholic diocese of Moshi (CDM). While the baking project demand high amount of capital, time and skilled personnel compared to other income generating activities like agricultural projects. The school had poultry farming. The findings showed that most of students' responses indicated satisfactory with poultry farming as it enables schools to get quick money and balanced diets for students, staff and heads of schools, while the majority of teachers' responses indicated poultry farming was not available in their school. The Cattle rearing project was also part of the school projects. This involved rearing of livestock like cattle and goats was very important income generating activity in secondary schools. It provides beef and milk for school's stakeholders. The school had piggery project that enables them to obtain reliable supply of bacon and income necessary for financing quality education provision. In crops and vegetables farming the school was able to use crops and vegetable farming as main school-based income generating activities in almost all the secondary schools managed by the catholic diocese of Moshi. Questionnaires, interview schedules and observation checklists were used to collect data and after data analysis, the result indicated that vegetables and poultry were the main school based IGAs in secondary school managed by the CDM. The project assisted in provision of teaching and learning resources as the contribution of school based IGAs to the secondary schools managed by the CDM. The school based IGAs are useful alternative ways of producing additional funds as they enable secondary schools managed by CDM to solve financial problems among others.

III. RESEARCH DESIGN

Descriptive research design was utilized in the study. This design was used through applying structured processes. Kumar (2005) indicates that the main aim of descriptive research is to describe basic characteristics of an identified phenomenon thorough collecting and analyzing the information carefully without manipulating it. The study was undertaken at Ainamoi sub-county in Kericho County. Ainamoi is made up of six administrative wards namely: Kapkugerwet, Kapsoas, Kapsoit, Kipchimchim, Ainamoi and Kipchebor. The sub-county has a sum-total of 30 public secondary schools and most schools are located towards Kericho county headquarters.

The target population for this study constituted all the 58 respondents principals and bursars of the 29 public secondary schools inclusive of those with and without IGAs and have done. The respondents were chosen because they are the ones involved in planning, financing and implementing IGAs in schools. In this study questionnaires, observation check lists and interview schedule was used to get answers to research questions from the respondents. Quantitative data analysis was analyzed using descriptive statistics and presented in form of tables, pie charts, percentages, frequencies, mean and Pearson’s correlation coefficient.

IV. FINDINGS

Table 1 Types of IGAs in Secondary Schools in Ainamoi Sub-county (n=29)

Income Generating Activities	Number of Schools	Percentage
Commercial	5	17.2%
Agricultural	29	100.0%
Service	20	69.0%
Total	29	100%

Source: Researcher (2019)

Table 1 indicated that each and every school among the 29 secondary schools surveyed had an income generating activity being undertaken. All schools in the region practiced agricultural based income generating activities. This showed that most of the secondary schools in the region had sufficient land that allowed agricultural based income generating activities. This results agreed with Nyangaresi *et al* (2016), who found that IGAs that was practiced in most schools in Kenya were Agricultural based. This is due to low capital requirements by the project and its ability to supplement food requirements in the secondary schools. The schools that practiced commercial based income generating activities 24(82.8%). In contrast, only 5(17.2%) schools practiced commercial based income generating activities. Thus there was a significant 82.8% of the schools that did not participate in commercial based IGAs. Service based IGAs were used by 20(69.0%) schools to generate funds, whereas 9 (31.0%) schools did not use service based IGAs. The results indicate that there were twice as many secondary schools practising service based IGAs as those who did not.

Table 2 represents agriculture based income generating activities. The findings revealed that 18(62.1%) respondents

strongly agreed, 8(27.6%) agreed while 3(10.3%) were neutral that cattle husbandry is practiced in the school as agricultural IGA. The mean of 4.517 implies that secondary schools practiced cattle husbandry. This confirms the finding by Nyangaresi *et al* (2016) that livestock keeping was commonly practiced by majority of the schools.

In response to school having variety of vegetables as IGA 18(62.2%) respondents strongly agreed, 10(34.5%) agreed whereas 1(3.4%) was neutral. A mean of 4.586 of revealed that various schools use vegetables as IGA. The results from schools revealed that poultry keeping was practiced by 75.8% of the secondary schools whereby 5(17.2%) strongly agreed, 17(58.6%), 6 (20.7%) were neutral whereas 1 (3.4%) respondent disagreed. The mean of 3.897 revealed that poultry keeping was practiced by a moderate number of schools as IGA. High number of schools practiced sale of timber from trees within the school compound whereby 18(62.1%) respondents strongly agreed, 10(34.5%) agreed whereas 1(3.4%) was neutral. The results mean of 4.103 reveals that selling of timber from tree within the school was highly practiced as an agricultural based IGA.

Table 2 Agriculture based IGAs in Secondary Schools in Ainamoi Sub-county (n=29)

Agricultural based IGAs	SA (5)	A(4)	N(3)	D(2)	SD(1)	Mean
Cattle husbandry is practiced in the school as IGA	18(62.1%)	8(27.6%)	3(10.3%)	0(0.0%)	0(0.0%)	4.517
The school has variety of vegetables as IGA	18(62.1%)	10(34.5%)	1(3.4%)	0(0.0%)	0(0.0%)	4.586
Poultry keeping is utilized as IGA	5(17.2%)	17(58.6%)	6(20.7%)	1(3.4%)	0(0.0%)	3.897
The school sells timber from tree within the school	18(62.1%)	10(34.5%)	1(3.4%)	0(0.0%)	0(0.0%)	4.103
Firewood are provided	5(17.2%)	17(58.6%)	6(20.7%)	1(3.4%)	0(0.0%)	4.379

by the school to community and consumption purposes

Source: Researcher (2019)

The provision of firewood by the school to the community and for their own consumption was shown by the results to be a popular agricultural based IGA. This study revealed that 5(17.2%) respondents strongly agreed, 17(58.6%) agreed, 6(20.7%) were neutral whereas only 1(3.4%) respondent disagreed. Therefore, to a greater extent the schools in Ainamoi Sub-county are able to provide sufficient firewood for own consumption and surplus is sold to the community based on the mean of 4.379.

This research concurs with a study done by Bray (2000) in Singapore, who found that learning institutions were involved in numerous income generating activities which included carpentry, metal work, growing of crops and rearing of animals. In Tanzania, a study by Onesmo and Koda (2018) also found that Catholic Diocese of Moshi secondary schools preferred agricultural based income generating activities due to their low startup cost. These schools were involved in poultry farming, crop farming and livestock rearing like cattle and goats. Even though Ainamoi sub-county secondary schools did not have goat and pigs, they practiced vegetable farming and cattle husbandry as the main agricultural based income generating activity. In Kenya, the study by Nyangaresi *et al* (2016) found that all the schools conducted agricultural based related IGAs due to low initial capital and available resources. It also showed that the high dependency on land meant that the schools engaged in horticultural farming and livestock keeping among other agricultural based practices. The current study has revealed that vegetable farming and cattle husbandry are the highest agricultural based income generating activities practised by schools in Ainamoi Sub-county whereas poultry keeping was the least practiced.

Results from questionnaires indicated that all the schools under this study practiced agricultural based activities, 69.0% of schools were able to render services by hiring out vehicles, classrooms, halls, houses, offices, fields or library and other facilities. On the other hand, commercial based income generating activities was the lowest with 17.2% through canteen and commercial properties. The questionnaire results further reveal that agricultural based income generating activities included cattle husbandry, vegetables, poultry keeping, timber and firewood beside tea production practiced in the school farms. There were similarities with Onesmos and Koda (2018) where the schools had school shop, crop production, cattle rearing, vegetable farming and bakery. On the contrary Onesmos and Koda (2018) found that the schools in Moshi practiced goats rearing and piggery which was not the case with the schools in Ainamoi Sub-county. The schools in Moshi did not also practice tea and tree farming nor did they hire out their buildings for service and commercial activities as income generating activities which this study has established were practiced by the schools in Ainamoi Sub-county. In another research done in Kenya, Nyangaresi *et al* (2016) pointed out that crop farming was highly practiced followed by dairy farming,

poultry farming and fish farming as the least of agricultural income generating activities practiced in secondary school in Nyanza region. It also found that agricultural income generating activities were rated the highest IGAs practiced in the Kisumu County. This is similar to the finding by the current study in Kericho county despite fish farming and tea not being practiced in both Counties, agricultural IGAs are beneficial to the secondary schools in Kenya. Nyangaresi *et al* (2016) also found that besides the contribution by farming, other sources funds through IGAs came through the leasing out of school canteen and school bus respectively.

This results concur with the interview results where cattle husbandry was suggested to be the major agricultural income generating activity practiced in the schools. The results from service based income generating activities indicated that most schools practiced hiring out of the school bus to the community, classrooms and hall over the holiday, teacher's houses, tents, furniture and school fields for events. Corresponding to commercial business the schools renting commercial property, maize mill, bakery and canteen as source of business that provided income to the schools.

Results from interview schedule indicate the same findings that concurs with question where most of the respondents cited cattle husbandry is the most commonly practiced as well as vegetable farming, while some also cited the hiring of the halls, classes and commercial building. Most of the money that was obtained from these projects was utilized in reducing expenses, payment of schools fees and support the government funds. Nyagaka (2016) found out that income generating activities were carried out to subsidize the government financial allocation which was insufficient to meet the expenses requirement for secondary schools. The current study has confirmed the same through most of the comments from interview results with the school principals. The results of the observations made in this study concurred with the other findings where classrooms, halls, vehicles and other facilities were available for hiring. On the other hand, the land was sufficient in most of the schools with substantial acreage put under tea, cattle keeping and vegetable farming in that respective order.

V. TYPES OF IGAS IN SECONDARY SCHOOLS IN AINAMOI SUB-COUNTY

The results further indicated that there was a significant number of secondary schools who did not participate in commercial activities from the total of schools that were visited, the results from types of IGAs reveal that various schools use vegetable as an income generation activity, poultry keeping was practiced though not on large extent. The results indicated that all the school had agricultural activities and from the findings their cattle husbandry was the highest agricultural practices. Tea commercial crops were found to be available with vegetable in the secondary schools.

From the findings it reveals that, there was a significant number of schools who hire buses to other schools and community, also it indicated that classrooms and halls act as source of income over holidays, majority agreed that tents were hired as source of income, furniture hiring was also agreed to be hired to generate income. Commercial based IGAS, also results indicate that students agreed that canteen was used by school as

source of income. Concerning commercial IGAs majority agreed renting commercial property was a source of income for some schools, the results further reveal significant number mills maize for the community. There existed a strong correlation between the types of income generating activity and academic performance. This means the type of income generating activities affected significantly academic performance.

The study concluded that were a number of schools that did not participate in commercial based activities. Agricultural based IGAs were mostly practiced by secondary schools in the region since they had sufficient land that allowed agricultural based income generating activities. Considerable number of secondary schools were involved in service based income generating activities as compared to those who did not. It also concluded the types of income generating activities was significantly related with academic performance of the school.

The study recommends that school heads should engage in income generating activities of all types to ensure more productivity. Also they should be willing to use the resources at their disposal to run the schools effectively. Even though not all activities assisted in academic performance but it reduces the burden of the parents as well as the government especially in building school infrastructure. The research recommends to the ministry of education to consider the mending the policies of vetting income generating activities to enable the school to perform financially as well as academic performance. The results indicate that agriculture based income generating activities would assist in both biology and agriculture practical hence enhancing academic performance.

REFERENCES

- [1] Ayodo, T., Ndolo M. & Simatwa E. (2011). Effects of school based investment on a shows their access Financing of secondary education in Homabay District, Kenya. *Education Research*, 2(12), 1821-1830
- [2] Best, J. W., & Kahn, J. V. (2006). *Research in Education (10th ed.)*. Boston: Pearson Education, Inc...
- [3] Bray, M. (2000). *Education in Asia. Financing the higher Education: Prospects Vol.* Washington DC. World Bank
- [4] Bregman, J., & Stallmeister, S. (2002). *Secondary Education in Africa: Strategies for renewal. African Region Working Paper Series*. Washington, DC: Human Development Sector African Region, The World Bank Retrieved January 15th, 2007, from <http://www.worldbank.org/afr/seia>
- [5] Chepkwony, S. (2018). Determinants of Implementation of Income Generating Projects in Public Secondary Schools in Konoin District, Bomet County, Kenya. *IOSR Journal of Business and Management*, 20(3), 64-68.
- [6] Cohen, L., Manion, L. & Morrison K. (2011) *Research methods in education* (7th ed.) London,
- [7] Duflo, E. (2012). Women Empowerment and Economic Development. *Journal of Economic Literature*, 50(4), 1051-1079, <http://dx.doi.org/10.1257/jel.50.4.1051>.
- [8] Field, A. (2009). *Discovering Statistics using SPSS*. London, England: SAGE
- [9] Gebreyes, M. (2010). Revenue Generation Strategies in Sub-Saharan African Universities. *International Journal of Entrepreneurship Education*.
- [10] Getange, K., Orodho, J., & Onkeo, J. (2014). Alternative Sources of Funding for free day Secondary Education in schools in Kisii central Sub-County, Kisii County, Kenya.
- [11] GoK (2012). *Education Act 2012*. Government Press
- [12] Gulati, R. & Sytch., (2007). Dependency asymmetry and joint dependence in inter-organizational Relationships: Effects of embedders on a manufacturer's performance in Procurement relationships. *Admin.Sci. Quart.* 52 32-69.
- [13] Hajdu, F. & Chipeta, L. (2011). Income Generating Activities as Components of Sustainable Rural Livelihoods for young Southern Africans-AIDS and other Constraints. Malawi and Lesotho. The Geographical Journal.
- [14] Heeley, M., King, D. & Covin, J., (2006). Effects of Firm R&D investment and Environment On acquisition likelihood. *Journal of management studies*, 43(7), 1513-1535.
- [15] Israel, G. (1992). Sampling the Evidence of Extension Program Impact. Program Evaluation an Organizational Development, IFAS, University of Florida. PEOD-5. October.
- [16] Jaeger, M. & Rosnow, R. (1988). Contextualism and its implications for psychological inquiry. *British Journal of Psychology* 79 (1), 12-56
- [17] Kavetuna, F. (2013). *A study on the use of the Income Generating Activities: Perceptions of Beneficiaries in the Kavango Region of Namibia*. University of Namibia.
- [18] Kerlinger, F. (2003). *Foundations of Behavioral Research*, Harcourt Brace Jovanovich.
- [19] Khatete, I (2014). Education has remained the most crucial contributor to social, political and Economic development of a Nation. *International Journal for innovation Education and Research*, 2(2), 21-39. Retrieved from <http://ijer.net/index.php/ijer>
- [20] Kigotho, N. (2012). A study of factors affecting employee's motivation at work place: A case study of Equity Bank of Kenya. Nairobi: Unpublished University of Nairobi.
- [21] Kiveu N., & Mayo, J. (2009). The impact of cost sharing on internal Efficiency of public Secondary schools in Ndivisi division, Bungoma District. *Education Research and Reviews*, 4(4) Pg272-284, March 2009.
- [22] Kumar (2005). *Research methodology: A step by step Guide for Beginners*, (2nd Ed.) New Delhi: Sag publication.
- [23] Leedy P. & Ormrod J. (2005). *Practical Research: Planning and Design*. Prentice Hall, Upper Saddle River, NJ.
- [24] Lewin, K., & Chang, H. (2001). Secondary School Financing in China: Economics of schooling. In Financing Secondary Education in developing countries: Strategies for Sustainable Growth. Paris: International institute for Educational planning/UNESCO.
- [25] Lewin, K., & Calloids. F. (2001). Financing secondary education in developing countries, Strategies for sustainable growth. Paris. IIEP-UNESCO. Nairobi.
- [26] Lumuli, C. (2009). Internal Efficiency measures in Promotion of Access and Completion rate in Public Secondary Schools in Bungoma South District. Unpublished Med Project Report. University of Nairobi.
- [27] Lwakasana, E & Getange, N. (2017). Effects of IGAs in public secondary schools in Transmara Sub-county, Narok County Kenya. Unpublished Novelty Journal. *International Novel Research in interdisciplinary studies* vol.4, issue 6, pp (1-8). Available at: www.noveltyjournals.com.
- [28] Mbatia, P. (2004). FPE assessment report, Jomo Kenyatta, Kenya.
- [29] McMillan, J. & Schumacher. (2010). *Research in Education: evidence-based inquiry* (7th ed.). Boston: Pearson.
- [30] Mugenda, O. & Mugenda, G. (1999). *Qualitative research methods*. ACT PRESS
- [31] Mugenda, O. & Mugenda, G. (2003). *Research methods*. ACT PRESS.
- [32] Muhammed, J., Khan, A.S & Farah, A. (2006). Impact of Micro Credit Scheme of NRSP on the Socio Economic conditions of Female community in District Rawalakot, Azad, Jumu and Kashmir, Pakistan. *Journal of Agriculture and Social sciences*. 2(3), 142-144
- [33] Mwendwa, J. (2015). Factors influencing principals' mobilization of resources in public secondary schools in Migwani Sub-County Kitui County, Kenya. *Unpublished University of Nairobi Report*.
- [34] Nyagaka, H. (2016). An evaluation of income generating activities ion public secondary schools in Nairobi County. *Internal Journal of African and Asian Studies*. 21.
- [35] Nyangaresi, K, Onderi, H. & Mwebi, B (2016). *Influence of School-Based Income Generating Projects on Students' Retention Rate in Secondary Education in Kenya*. Jaramogi Oginga Odinga University of Science and Technology, Bondo, Kenya. A Journal of Educational Policy and Entrepreneurial Research (JEPER).
- [36] Obadha, R. (2012) Impact of Income Generation Activities on Financing Secondary School Education in Migori County, Kenya. Nairobi University.

- [37] Odundo, P. & Rambo, M (2016). Effect of School-Based Income Generating Activities on the Financial Performance of Public Secondary Schools in Kenya. University of Nairobi.
- [38] Oduogi, A. (2003). IGAs in secondary schools: A case study of Suba District, Kenya. From Unpublished M.Ed. Thesis, Kenyatta University
- [39] Ola, A. (2014). *Measuring the Impact of Income Generating Projects on Women's Empowerment Outcomes*. Evidence from Rural Morocco. University of Pennsylvania. Wharton Research Scholars Journal.
- [40] Omukoba H. Simatwa E. & Ayodo T. (2011). *Contribution of income generating activities to financing secondary education in Kenya*. A case study of Eldoret Municipality. International Research Journal.
- [41] Onesmo, A. & Koda, M. (2008). Contribution of School-based IGAs in Quality Education Provision in Secondary Schools managed by Catholic Diocese of Moshi, Tanzania. *British of Education* Vol.6, No.4, pp 49-69, April 2018.
- [42] Orodho, A. (2004). *Techniques of writing research proposals and reports in Education and Sciences* (1st Ed), Nairobi; Renata Printers.
- [43] Orodho, A. (2008). *Techniques of writing research proposal and reports in Education and sciences*. Maseno, Kenya: Kanezja HP Enterprises
- [44] Pfeffer, J. & Salancik, R. (1978). *External Control of Organizations: Resource Dependence*.
- [45] Pfeffer, J. (1987) *A resource dependence perspective on intercorporate relation*". In M.S. Mizru-Chi and M. Schwartz(Eds.), *Intercorporate Relations: The structural Analysis of Business*, 25-55 Cambridge, UK: Cambridge University Press.
- [46] Runyon R. & Haber A. (1900). *Fundamentals of Behavioral Statistics*. Massachusetts: Addison-Wesley Publishing Company, Inc. 1967. pp 304. & 695
- [47] Selina, (2012). Impact of IGAs on students Retention Rates in Public Secondary Schools Vihiga District. Unpublished project
- [48] Siswanto, E, Ahmad-Sonhadji, H. & Idrus, M. (2013). Good University Income Generating Governance in Indonesia: Agency Theory Perspective. *Internal Journal of Learning Development*. Indonesia Publisher
- [49] Smart Aid School in Africa. (2019, 03 09). *Promoting Equality in African Schools (PEAS)*. Retrieved from Center for Education Innovation: <https://educationinnovations.org/funder/promoting-equality-african-schools-peas>
- [50] Steers & Smith, K. (2015). *Financing Education for Global Action*. Washington; Global Economy and Development and Brookings Institute.
- [51] Tabitha, J. (2014). School Management and Students' Academic Performance. How Effective are strategies being Employed by School Managers in Secondary Schools in Embu North District, Embu County, Kenya. Kenyatta University, Kenya. *International Journal of Humanities and Social Science*
- [52] Wambua, A. (2015). Mobilization and allocation of teaching and learning resources among subjects in public secondary schools in Makueni County, Kenya. *Unpublished Kenya University Report*.
- [53] World Bank, (1994). *World Development Report 1994: Infrastructure for Development*. World Bank and Oxford University Press, Washington DC
- [54] World Bank, (2010). "A New Database on Financial Development and Structure." Washington DC: World Bank.

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