

RELATIONSHIP BETWEEN BOARDS OF MANAGEMENT MEMBERS' PERSONAL AND PROFESSIONAL CHARACTERISTICS AND THEIR EFFECTIVENESS IN MANAGEMENT OF PUBLIC SECONDARY SCHOOLS IN NYANDARUA NORTH SUB-COUNTY, KENYA

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ABSTRACT

The ministry of education (moe) in kenya has provided operational guidelines to basic educational institutions' boards of management (boms) through an act of parliament in order to achieve school and hence national educational aspirations. The attainment of the aspirations, however, is hindered by inappropriate composition of boms in terms of predisposition of members of the boards. This study sought to establish whether there is a relationship between selected personal and professional characteristics of bom members and their effectiveness in management of public secondary schools in nyandarua north sub-county, kenya. The selected characteristics included members' level of formal education, years of experience in management, level of training in management and their age. The study was anchored on contingency theory of management. Using an ex-post facto research design, data was collected from 30 principals and 90 heads of departments (hods). 28 public secondary schools were selected to participate in the study using proportionate and simple random sampling. All principals and three hods from each of the selected schools took part in the study. Two sets of questionnaires were used in data collection, one for principals and the other one for hods. Data were analyzed both descriptively and inferentially with hypotheses being tested at an alpha level of .05 using pearson's product-moment correlation coefficient. Analysis was done with the help of the statistical package for social sciences (spss) computer programme version 24.0. Findings revealed that there was a statistically significant relationship between bom members' level of formal education, experience in management and level of training with effectiveness in management but not with their age. The study therefore concluded that bom members' effectiveness in management of public secondary schools is contingent upon members' level of formal education, experience in management and level of training in management but not age. Based on the findings, the study recommends that the government through the respective county directors of education (cdes) considers the level of education, experience in management and training of bom members before their appointment.

Key Words: Effectiveness in Management; Experience in Management; Level of Education; Level of Training.

1. INTRODUCTION

Education provides the basis for economic development as well as enjoyment of other human rights (Muthoka, 2013). Muthoka observed that education enlightens people on their rights and responsibilities making it an indispensable tool for realization of the goals of equality and peace in a country. In this regard, the Kenyan Constitution of 2010 recognizes Basic Education (BE) as a universal human right and this led to introduction of free education in all public primary schools and day secondary schools by the government in 2003 and 2007 respectively. The Rio Conference of 2012 brought together world leaders and stakeholders from the education sector in the government and other interested groups to develop a set of Sustainable Development Goals (SDGs) (Desseler, 2011). The SDGs followed and expanded on the Millennium Development Goals (MDGs) and aimed at responding to new challenges which are consistent with post 2015-development agenda. Since education is an indispensable tool for continued existence and growth of any nation, the SDGs advocate for Universal Education for All (UFA). In this respect, the government of Kenya has identified education as one of its major pillars in attainment of Vision 2030 and the Big Four Agenda Items (Kariuki, Majau, Mugiria & Reche (2018). This basically calls for intensified and deliberate efforts to enhance access and equity in provision of formal education mainly through effective management.

Education management can be defined as a means of preparation and deployment of resources in the school in an organized and efficient way and according to the laws and regulations (Ouya & Mweseli, 2009). Effective management of education is a prerequisite to a well-founded education system given that the way school resources are utilized to a large extent influences the overall school performance (Waweru & Orodho, 2014). Globally, the trend towards enhancing effectiveness in management of education is through decentralization of its management (Obota, Oluoch & Makani, 2015). In Kenya, the Cabinet Secretary (CS) in the Ministry of Education (MoE) has the responsibility for overall governance and management of BE institutions according to the Basic Education Act (BEA) of 2013.

The BEA of 2013 states that there shall be a Director in charge of Education in the County (CDE) deployed by the Education CS in an open and competitive process. The CDE shall be the secretary to the County Education Board (CEB) and holder of authority to incur expenditure of education account in the county. The BEA further states that every public school in the republic of Kenya shall have a Board of Management (BoM) that will carry out all management functions of the school. The Boards shall consist of seventeen (17) members. The government envisions the BoM as a vehicle of promoting overall development in institutions which enhance accessibility and provision of education to all in an equitable manner (Muema, 2015).

Considering many emerging issues with regards to management of public secondary schools, the MoE has deemed it prudent to provide policy directions on constitution, appointment and operations of BoMs. The Education Act (2012) of the Laws of Kenya Section 10 indicates that local professionals should be appointed to provide critical services and advice to schools (RoK, 2013). This implies that selection of BoM members should target people with experience and suitable expertise as well as reflect community diversity (Asiego, 2010). In this regard, the study sought to find out whether there existed a relationship between BoM members' personal and professional characteristics and their effectiveness in management of schools. Empirical evidence points out that BoM members appointment in numerous institutions does not meet the stipulated requirements as outlined in the BEA of 2013 (Kiberia, Limukii, Ndiku & Mwaluko,

2012; Muema, 2015; Mwaniki 2011; Orodho, 2014). There were claims from education stakeholders that some BoM members do not meet the required qualifications and therefore they lack capacity and skills to render effectively their mandated roles leading to a negative impact in students' performance in national examinations (Obota, Oluoch & Makani, 2015).

Education management in most public schools is affected by interference of political leaders who manipulate the process of selecting BoM members to further their political interests (Kimeu, 2013). In such schools, BoM members lack the authority and competence required to make independent decisions in the interest of the school. Mbugua, Miriti, Mungiria and Reche (2012) observed that without the right qualifications and expertise, BoM members cannot effectively check manipulation of school management. A research carried out by Waweru and Orodho (2014) established that majority of BoM members are largely ineffective in their mandated roles. The study by Waweru and Orodho highlighted the importance of appointing well-educated individuals and giving them adequate induction and proper training to promote effectiveness in management of students and teaching and support staff members. Mwaniki (2011) observed that there lacked clear policy on training of BoM members. This makes the BoM members to lack adequate exposure to training in management and as a result, it has been found that many of them lack capacity to supervise and account for utilization of resources under their docket (Orodho, 2014). There are therefore claims from stakeholders that lack of training opportunities paralyzes BoM members' effectiveness in overseeing management of secondary schools and offering adequate policy guidance (Kaguri, Njati & Thiane, 2014). This justified the importance of examining the extent to which effectiveness of BoM members in management of public secondary schools was influenced by level of training in management with a view to making suitable recommendations on training of members in order to enhance professionalism in fulfilling their role expectations.

Formal education enables individuals to possess interpersonal skills that are required to formulate management procedures anticipated to bring changes and ensure high and consistent academic outcomes (Mutuku, Kanori & Kalai, 2016). According to Waweru and Orodho (2014), education enables individuals to show high level of emotional control and exhibit maturity in case of discrepancies and accommodate other people's views. Waweru and Orodho observe that individuals with higher academic qualifications are able to formulate educational policies that are within existing laws and give direction to institutions in achieving their aspirations as compared to their counterparts with only a Form Four level certificate. This study set to investigate the extent to which members' level of formal education is related to their effectiveness in managing public secondary schools.

Kimeu (2010) observed that education managers who have acquired prerequisite knowledge and experience on matters related to education governance, law and management are more effective in management. This study sought to examine whether BoM members' years of experience in management is related to their effectiveness in management of public secondary schools. Makewa, Maremo and Role (2013) assert that a group of managers comprising of persons of the same age is headed for crisis. Adams and Funk (2010) observed that a group consisting of uniformly old managers may be preferable to one that comprise of uniformly young managers. A research conducted by Carstensen and Reed (2012) established that managers' age has no effect on their performance of their managerial duties. A research done by Okumbe (2008) on head teachers of primary schools performance indicated that age of head teachers had an effect on

their administrative performance. Okumbe observed that head teachers who were advanced in age had spent many years on the job, had attended many seminars and participated in relevant professional discussions that gave them exposure to innovative techniques of administration. From the foregoing, the factor of age in relation to BoM members' effectiveness in management was unclear since there existed contradictions in empirical results (Makewa et.al, 2013; Okumbe, 2008; Reed & Carstensen, 2012; Scheibe & Zacher, 2013). This study set out to examine if there existed a significant relationship between the age of members of the Boards and their effectiveness in the management.

During the Education day in Nyandarua North Sub-county in March 2019, the Teachers Service Commission (TSC) Sub-county Director of Education (SCDE) read out the mean score on KCSE performance for the year 2017, 2018 and 2019 as 3.92, 3.44 and 3.85 respectively out of the possible maximum of 12 points. This reflects recurring dismal performance in national examination. Since the BoM body has the responsibility in running of all public secondary schools in the republic, effectiveness or ineffectiveness in their management roles has an impact on the performance of students. In light of this observation, the SCDE claimed that ineffectiveness of members of BoMs in management of schools was one of the key factors that had led to the recurring dismal performance of students in Kenya Certificate of Secondary Education (KCSE) examination in the Sub-county (SCDE, 2019). Whereas no study on relationship between BoM members' characteristics and their effectiveness has been conducted in Nyandarua North Sub-county, education stakeholders tended to place blanket condemnations on ineffectiveness of members of BoMs in management of public secondary schools. It was against this backdrop that the study was carried out to investigate the relationship between BoM members' personal and professional characteristics and their effectiveness in management of public secondary schools with a view to providing useful recommendations in development of guidelines for selection and training of BoM members.

2. STATEMENT OF THE PROBLEM

BoM members have a significant responsibility to ensure the success of decentralization of education management at the school level in order to enhance efficiency in schools management. Effectiveness of BoM members in their management roles enhances access to quality education for all; a requisite tool for achieving the goal of equity in provision of education in the country. Ineffectiveness in BoMs management roles has a direct effect on the students' performance at the national examinations. Despite timely appointment of BoM members in Nyandarua North Sub-county, the schools have not adequately met their aspirations as expected. This is indicated by recurring dismal performance in KCSE examinations where the Sub-county has recorded a mean score of below 5 out of possible maximum of 12 points for the last three years; 2017, 2018 and 2019. This has been attributed to inappropriate composition of BoMs in terms of predisposition of the members hence ineffectiveness in their management roles. It was therefore necessary to examine the relationship between selected characteristics and effectiveness of members of BoMs in management of public secondary schools in Nyandarua North Sub-county, Kenya with a view to coming up with recommendations on how the challenges can be addressed in the Sub-county and the country at large.

3. PURPOSE OF THE STUDY

The study aimed at investigating the relationship between BoM members' personal and professional characteristics and their effectiveness in management of public secondary schools in Nyandarua North Sub-county, Kenya.

4. STUDY OBJECTIVES

The study sought to achieve the following specific objectives

- i. To find out whether there is any relationship between BoM members' level of formal education and their effectiveness in managing public secondary schools in Nyandarua North Sub-county, Kenya.
- ii. To investigate whether there is any relationship between BoM members' level of experience and their effectiveness in managing public secondary schools in Nyandarua North Sub-county, Kenya.
- iii. To examine whether there is any relationship between BoM members' level of training and their effectiveness in managing public secondary schools in Nyandarua North Sub-county, Kenya.
- iv. To examine whether there is any relationship between BoM members' age and their effectiveness in managing public secondary schools in Nyandarua North Sub-county, Kenya.

5. HYPOTHESES

The following null hypotheses were tested at an alpha level of .05:

H01: There is no statistically significant relationship between BoM members' level of formal education and their effectiveness in the management of public secondary schools in Nyandarua North Sub-county, Kenya.

H02: There is no statistically significant relationship between BoM members' experience in management and their effectiveness in the management of public secondary schools in Nyandarua North Sub-county, Kenya.

H03: There is no statistically significant relationship between members' level of training in management and their effectiveness in the management of public secondary schools in Nyandarua North Sub-county, Kenya.

H04: There is no statistically significant relationship between BoM members' age and their effectiveness in their management of public secondary schools in Nyandarua North Sub-county, Kenya.

6 LITERATURE REVIEW

a. Establishment of BoMs in Kenyan Secondary Schools

In the Kenyan constitution promulgated in 2010 and in accordance with the BEA (2013) article No. 14, BoMs are set up for all Basic Education Institutions (BEIs) by a selection panel in the Sub-county where the institution is located. The CEB through the SCDE where the school is situated constitutes the selection panel as guided by the new operational guidelines for BoMs. The selection panel consists of the SCDE, a person representing teachers' trade unions, the school principal, area Member of Parliament or a representative, member of the County Assembly, a representative of Parents Association (PA) and a sponsor.

The role of the selection panel is to select BoM members, submit minutes of the meeting with summarized curriculum vitae of selected persons for each secondary school to the CEB for

appointment after verification of their academic credentials. Presently and in line with the BEA No. 14 of 2013, BoMs are made up of 17 members who are appointed by the CEB as provide by section 56(articles 1,2 and 3).The Act provides that the membership of the Boards should comprise a nominee by CEB, a teaching staff representative, three persons representing the sponsor, six representatives of the local community, a representative of special interest groups, a member representing people living with disability, a students' council representative and three co-opted members.Selection of BoM members should be democratic and in line with the provisions of the devolved systems of Government as stipulated in Article 6 of the Constitution of Kenya of 2010. The composition of BoMs presently has enabled more persons to participate in the management of education in BEIs and therefore has enhanced access to BE. This has greatly contributed to promotion of social and economic development across the country. However, Otieno (2010) observed that the expanded membership of BoMs was opposed by principals in secondary schools with claims that the number of members should be reduced to nine down from the current seventeen. According to Otieno, principals claimed that when the membership is expanded the decision-making process takes a very long time leading to ineffectiveness in management.

The co-opted members of BoMs have no voting right. This is despite the fact that such persons that are co-opted into BoMs have certain skills and vast experience which can significantly assist in management of public secondary schools by BoMs (Mwaniki 2011). Ndiku et al (2014) opined that the co-opted members of BoMs having no right to vote is a serious gap that needs to be addressed. Related study by Njeri (2014) indicated that some members of BoMs were in an antagonistic situation with other stakeholders in education. In reality, for BoMs to function effectively, members should be in a cordial relationship with the school principals and all other stakeholders in the school(Ongaki, 2010). Ongaki opined that it is the lack of that kind of relationship or co-operation between them that often result in conflict.

b. Roles of BoM Members in Schools in Kenya as provided by BEA of 2013

Among the key functions in management of schools by BoM members include management of finances(Muthiani, 2014).Muthiani further indicated that the role of financial management entails management of all public schools financial obligations. Wango (2009) observed that prudent management of school finances impacts positively on a school's endeavor in realizing its aspirations. In addition, Wango further noted that effectiveness in management of finances in a school facilitates proper utilization of funds appropriated to various projects of the school programs. This enables proper utilization of human resources and facilitates provision of supplies and equipment that are essential in aiding the school to achieve its objectives(Obota, Oluoch & Makani, 2015). Another function of BoMs according to the BEA of 2013 is management of school personnel. The responsibility of BoM members according to Mbaya and Maende (2014) in the management of human resource include maintaining and motivating staff, equitable distributing responsibilities among the existing staff and resolving conflicts that may arise in school.

In line with the provisions of the BEA of 2013, BoM members have a vital stake in ensuring that schools receive quality education.This is informed by the fact that they are responsible of managing the national curriculum at the school level (Obota, Oluoch & Makani, 2015). BoM members ought to demonstrate a great collective responsibility in provision and use of available

resources and in making decisions on students and the way in which learning takes place in their schools (Mutuku, Kanori, & Kalai, 2016). Mutuku et al further observed that the members of BoMs should familiarize with roles of teachers in curriculum implementation in order to be effective in their supervisory role (Mbayya & Maende, 2014). According to Kimando (2011), the school neighboring community has a responsibility to take care of the school physical plant including buildings and furniture. Kariuki et al (2012) indicated that a school is likened to a miniature community. Kariuki et al added that the school-community relationship determines whether the school accomplishes its aspirations or not. Mbugua, Miriti, Mungiria and Reche (2012) opined that BoM members are charged with the duty to promote the school and the community relationship. According to Muthiani (2014), parents' perception towards the school has a significant impact on students' performance. Muthiani further added that it is for this reason the principals and BoM members should work towards establishing a cordial relationship between the school and the community.

c. Factors Influencing Effectiveness of BoM Members in Management of Public Secondary Schools

i. Board Members' Level of Formal Education

Formal education enable individuals to acquire interpersonal skills that are essential in formulating management procedures in schools which are anticipated to bring changes and guarantee high and consistent academic performance (Makewa et al, 2013). Chebonya, (2015) noted that education enables a person to demonstrate high level of emotional control and display maturity in the face of discrepancies and accommodate other people's ideas. Chebonya added that individuals possessing higher level of academic qualifications are able to formulate educational policies that are in line with existing laws that guide the institution in achieving its goals and aspirations. The lowest level of educational attainment for an individual to be appointed as a Board member in schools in Kenya is a KCSE certificate (Obota et al, 2015). Kaguri et al (2014) opined that for governance of educational institutions to be effective, academic attainments of persons seeking to be appointed in BoMs must be considered. Kaguri et al added that level of academic attainment is essential given that literacy skills are required during discussions and drafting of minutes for future reference during BoM meetings. According to Mbugua, Miriti, Mungiria and Reche (2012) Board members with higher academic attainments such as Bachelors and Postgraduate degrees demonstrates inter-personal skills which are essential in making rational decisions, formulate and interpret educational policies that are in accordance with the law and serve like role models to students hence they lead to learners' motivation. Chebonya (2015) observed that members of BoMs with higher level education attainments have a positive influence on the quality of teaching because they make prudent decisions that are objective, understand psychology of human beings and maintain and motivate staff in their school. Going by these findings, it was deemed necessary to carry out a study to find out whether the relationship between BoM members' educational achievements and their effectiveness in management of schools is significant or not.

ii. Managerial Experience of BoM Members

MacDonald (2008) in a study on personal best leadership stories of educational management noted that certain leadership experience leads to knowledge of how to handle challenges. Watson

and Naragon (2009) observed that experience on matters regarding education management is vital for good governance where managers develop desired skills in management hence improve the performance of their institutions. Watson and Naragon further noted that training school board members unlocks their capabilities and enhances their performance. There exist a number of ways, according to Makewa et al (2013), in which members of BoM can acquire knowledge and skills to enhance their management skills. Makewa et al noted that such ways include getting information from reading books of management, mentorship from experienced members, on job training and observing experienced members as they perform their management duties. Ndiku et al (2014) noted that providing experience in order to assist BoM members modify behaviour and acquire information on management is very important. Ndiku et al added that BoM members' experience is influenced by behaviour and abilities which members of the Boards should possess; effective communication, cordial relationship at school level and management experience. Muema (2015) supported this by arguing that the success of any institution is contingent upon effectiveness of its managers and thus, managers should understand that each component of an institution contributes to the overall success of the school.

iii. BoM Members' Level of Training in Management

Orodho (2014) observed that provision of adequate training to BoM members is essential in the sense that it assists them understand and discharge their mandated duties effectively. Orodho further noted that the responsibility of training Board members rests on the MoE in any country. In Northern Ireland for instance, Education and Library Boards have the legislative responsibility to train school governors although the attendance is not compulsory (Kiboss & Jemirytt, 2014). Kiboss and Jemirytt noted that comprehensive range of training courses are offered to school governors. These courses focus on freedom of information, special education needs and disabilities, management of finances, human right awareness and anti-bullying, drug abuse and misuse, health and safety and child protection matters. In England and Wales, school governors are offered training and support by either central government, Local Education Authorities (LEA) or other organizations (Dessler, 2011).

BoM members are found to be ineffective in their management roles since it is alleged that they are not conversant with their duties and powers, lack management capacity and adequate training on basic managerial skills (Kimando, 2011). Kimando further observed that BoM members exhibited poor mastery in decision-making process. Waweru and Orodho (2014) noted that the biggest challenge for full participation by BoM members in decision-making process was as a result of inadequate training on management. Waweru and Orodho attributed this element to lack of adequate induction and training of members upon appointment.

Ndiku et al (2014) contend that inadequate training negatively impacted on Board members' effectiveness in management which has resulted to poor performance and thereby compromising the quality of education offered. Ndiku et al further recommends that there was need to provide in-service programmes regularly to all stakeholders. Ndiku recommends that for improvement in running of schools, the MoE should identify and offer adequate training to persons with the required academic qualifications. Muema (2015) noted that BoM members' managerial skills can be enhanced through provision of in service training, seminars and workshops organized by either the school or the MoE. Chebonya (2015) indicated that members of BoM had minimum exposure to training in management which was demonstrated by lack of supervisory

competencies in making use of available information to enhance management. Consequently, BoMs lacked ability to supervise and account for the utilization of resources under their docket (Kariuki et al, 2012).

iv. Age of BoM Members

Getange, Onkeo and Orodho (2014) argued that members' age was a determinant of their effectiveness in management. Getange et al observed that majority of people perceived experience as a result of age. Watson and Naragon (2012) in their research on emotional aging found that there were some changes in emotions which improved a persons' behavior. Emotional changes that are brought about due to advancement in age seemed to have an impact on the effectiveness of managers (Watson & Naragon, 2012). The changes in emotional behaviour according to Walter and Scheibe (2013) influence the behaviors of a manager and therefore they viewed them as mediating mechanism between Board members' age and their effectiveness in management. Age has not been considered as a factor by many education studies (Zacher, Rosing & Frese, 2011). Zacher et al observed that in most cases, age is considered as an extraneous variable.

Lockenhoff, O'Donoghue, Dunning, Scheibe, Mata and Carstensen(2013) in their study on the influence of age on emotional control revealed that older people have good control of their emotions. Lockenhoff et al, (2011) observed that older members in Boards of management are stable and positive in comparison to younger members. The outcome of the study by Locke off et al seemed to suggest that age has an influence on the members' effectiveness where older members were seen to be more effective than younger members in their management roles. According to a research carried out by Reed and Carstensen (2012), younger members of the Boards of management depended more on information outside their institutions and were found to depend more on external monitoring to avoid making mistakes. This was associated to inexperience as a result of their young age. Reed and Carstensen observed that older members of the Boards seemed to ignore negative information. This, according to the authors led to their motivation and hence they were more effective in their management roles. This study aimed at contributing to the existing literature by examining the relationship between age of BoM members and their effectiveness in management of public secondary schools.

7. THEORETICAL FRAMEWORK

The study was grounded on the Contingency Theory of Management (CTM) which was developed by Fielder in 1964 (Getange, Onkeo & Orodho, 2014). CTM describes an organisation as an open system that requires careful management in order to satisfy internal requirements and adjustments to the environmental circumstances. The theory views an organization as a social system comprising of sub-systems of resource variables related by various management policies, techniques and practices which interact with variables in the environmental supra-system to accomplish set goals (Mutuku et al, 2016). Management is guided by goals and objectives which are defined by components of social system by means of applicable environmental and resource constraints.

CTM advocates for a system approach in order to stress on both internal and external environment of the organisation. The significance of development of CTM is to assist in identifying system variables which are related to the organisation. These variables include

primary, secondary and tertiary levels. Factors which affect an organisation and are beyond the direct control of the organisation administration are referred to as environmental factors. These factors are considered as independent variables in the CTM. Marisa and Oigo (2018) noted that environmental variables can be categorized as internal and external environment. External environmental factors are those factors that are external to the organisation while internal organisational variables are within the control of the organizational administration. The general organisational variables consist of factors such as social, cultural, technological, political, legal, education, ecological and demographic aspects.

The tangible and intangible factors under the direct control of the managers in an organisation and which are utilized to yield desired changes in an organisation system or its supra-system are referred to as resource variables (Njeri, 2014). Njeri noted that resource variables can further be sub-divided into human and non-human resources. According to Njeri, human resource variables encompass demographic characteristics whereas non-human resources comprise elements such as school plant, equipments, capital, goods and services. Due to the fact that resource variables on which managers' function are given at any given time, they are treated as independent variables in the CTM.

Factors that are innate in characteristics of organization's management are known as management variables in the theory. The theory defines a manager as a person or persons having official power to make decision in an organisation (Waweru & Orodho, 2014). Waweru and Orodho defined management variables as techniques found in policies, practices and procedures that are used to operate available resources in achieving the objectives of the organisation. The relationship between primary variables in CTM is illustrated in Figure 1:

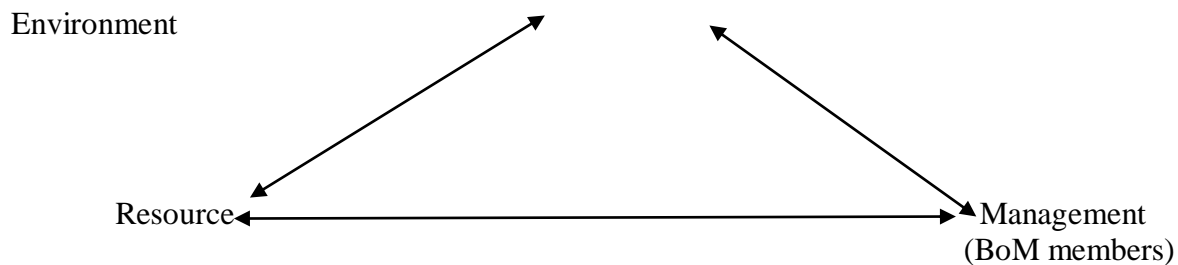


Figure 1: Relationship between primary variables in the Contingency Theory of Management adapted from Marisa and Oigo (2018)

The interaction of BoM members (managers) and the resources in their schools (resource variables) sets the result in a secondary sub-system variable which is defined by the CTM as operational organisation variables. CTM presents a closed system description of a specific state of the organisation at any given time without referring to the environmental supra-system where the organisation operates. Performance criteria variable is contingent upon the interaction of the managerial and environmental variables. The outcome of the interaction is the performance criteria variable which is germane to a particular organisational system. The main goal for BoM members is to effectively analyse prevailing set of environmental variables in order to predict the

viability of the performance criteria of the organisation. This analysis assist in determining necessary changes to be made in resource allocation in order to achieve effective performance as indicated against the performance criteria.

The interaction between primary variable sub-sets results to secondary variables. The secondary variables in an organisation cover situations and the performance criteria. The interaction of the resource and environmental variables in secondary system results into a situation. A situation describes the state of an organizational system in which managers' work within organizational factors resulting from interaction between administration and resource factors. This set presents a relatively closed system description of the state of the organisation in which the organisation operates. The third set of secondary sub-system variable is performance criteria. It is a product of the interaction between management and environmental factors. A performance criterion is determined by the interaction of the environmental and management factors. The interaction between these two factors results into a performance criterion which is related to a particular organisation. The other level of system variables is generated by the interaction of secondary system factors. The result of interaction between these factors represents the performance output in an organisation which is measured using applicable performance criterion factors. The particular sub-set in an organisation defines the aims and the aspirations of an organisation.

CTM was deemed relevant to this study in the sense that a school is basically a social organisation. It is regarded as an organisation because it comprises several united, unified and integrated components. These components work towards achieving a common goal and objective of desirable performance. A public secondary school as an organization is managed by a BoM which ensures smooth running of the institutional activities by effectively utilizing the available resources. For effective and efficient management of the school, BoM members work in various committees which function as sub-systems within one management system. The BoMs work under the CEB which in this context represents the supra-system body on the matters of governing schools in the country. BoMs have interfaces which indicate the boundaries under which they should operate. These boundaries consist of components of qualifications and their functions. An effective BoM encourage open system approach in their operations by allowing relevant information which is constructive and objective from all stakeholders in order to benchmark with other institutions which may have succeeded in their management functions. In this regard, effectiveness in management is contingent upon the available resources in the school. These resources come in the form of school fees collections, donations, grants, funds from fundraising and funds from the government all which are facilitated through BoM roles.

In this study, effectiveness in management of public secondary schools formed the dependent variable. According to CTM, the outcome in an organisation is contingent upon traits of its managers. In this case, effectiveness in running of public secondary schools is dependent upon the characteristics of BoM members. These traits comprise both personal and professional characteristics. Professional characteristics included educational achievements, years of experience in management and level of training while personal characteristics included the age of BoM members. The study hypothesized that these factors influenced the effectiveness of BoM members in terms of development of infrastructures, management of staff and students discipline, instructional materials provision, curriculum implementation supervision and determining the staffing needs in their schools. The factors were measured using likert-type items in the HoDs questionnaires.

8. CONCEPTUAL FRAMEWORK

The study hypothesized that BoM members' effectiveness in management of public secondary schools(Dependent variable) is contingent upon four selected personal and professional characteristics (independent variables). These included formal education, experience in management, level of training and the age of BoM members. Additionally, the study postulated that the influence of the independent variables would be moderated by three extraneous variables. These are external interventions, school category and the parents' characteristics. The conceptualized interplay between the study variables is as summarised in

Figure 2:

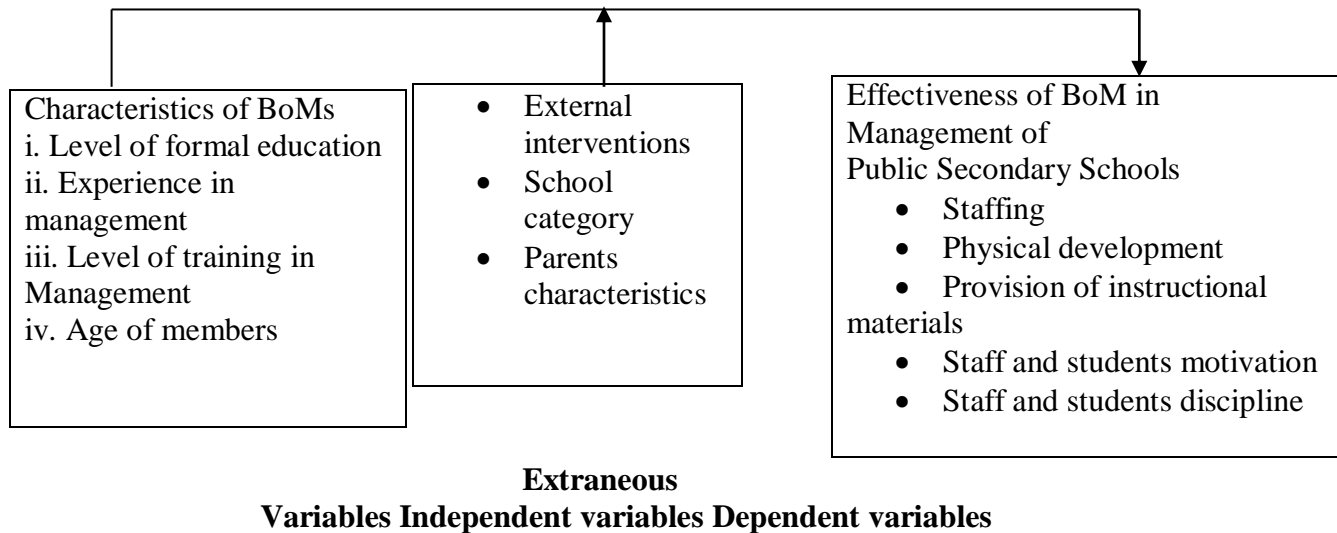


Figure 2: Conceptualized interrelationship among variables of the study

External interventions are factors external to the school that contribute to improvement in the state of affairs of the school. These come in the form of donations, government grants and external funding, for example, through National Government Constituency Funds (NGCDF). School category provides a basis for the magnitude of grants and funding the government provides in schools. It was therefore expected that National schools got more funding and also received higher attention from the government in terms of staffing. The schools were therefore expected to be well disposed compared to other schools. Parents with higher academic attainment are more exposed and therefore are expected to provide higher support to schools compared to parents with low formal education. The study controlled the extraneous variables through randomization where the schools which took part in the study were selected through simple random sampling.

9. METHODOLOGY

This study adopted an ex-post-facto research design. The design was considered to be the most ideal for the study because the researcher has no direct control of the independent variables since

they have already manifested themselves. The interaction between independent variables of the study that included education attainment, experience in management, training and age, and the dependent variable, that is, effectiveness in management had already occurred and could not be manipulated.

The study was carried out in public secondary schools in Nyandarua North Sub-county, Kenya. The study area has four administrative zones namely Kiriita, Leshau-Pondo, Central and Shamata zones. The Sub-county was selected because it had reported repeatedly poor performance in National Examinations which stakeholders claimed to be as a result of ineffectiveness in management by BoM members (SCDE, 2018). As such, it was imperative to examine the relationship between selected personal and professional characteristics of BoM members and their effectiveness in management of public secondary schools in the area of study.

Proportionate and simple random sampling techniques were utilized to generate the study sample. The starting point in applying the two sampling techniques was determining the number of schools that would participate in the study. The schools in the Sub-county were categorized into four sub-sets (zones). The purpose of grouping the schools into the four categories was to guarantee that there was balanced distribution among selected sub-groups of the population. The ideal sample size from a population with 30 elements is 28 according to the Krejcie and Morgan (1970) Table of determining sample sizes from given finite populations. This represented a sampling fraction (n/N) of .93 or 93%. In this regard, 93% of schools in each sub-population were selected using simple random sampling. This entailed writing names of all schools in a given sub-population on pieces of paper. These papers were then folded, placed in a container and then 93% of the papers were randomly drawn. From the selected schools, all principals and three HoDs in each school participated in the study. The principals are well placed to provide information related to BoM members; both personal and professional traits given that they are the head teachers in the schools. The roles of HoDs consist of overseeing the implementation of educational policies and programmes by BoM members in their respective departments therefore they were deemed to be in a good position to provide information regarding the effectiveness of BoM members in carrying out their management roles. The entire sample size for the study therefore was 112 respondents.

Data from the respondents were obtained with the aid of two sets of questionnaires. Semi-structured items as well as a 5-point likert scale items for both principals and HoDs were utilized in collecting data from the respondents. The collected data were coded for analysis after editing and checking whether all items were responded to as expected. Quantitative data were analysed with aid of Statistical Package for Social Sciences (SPSS) computer package version 24.0. SPSS aided in generating tables, percentages and graphs that assisted in making interpretations and deriving conclusions. Tables and graphs generated made interpretation easy and convenient in discussing the variables being studied. This assisted in treating evidence objectively, producing compelling analytical conclusions and deriving possible alternative interpretations (Neuman & Neuman, 2006). Inferential statistics involved testing hypotheses at an alpha level of .05 using Pearson's product moment correlation coefficient.

10. RESULTS AND DISCUSSION

The study aimed at establishing the relationship between BoM members' personal and professional characteristics and their effectiveness in management of public secondary schools in Nyandarua North Sub-county, Kenya. The professional characteristics included level of formal education, experience in management and level of training while personal characteristics included the age of the BoM members. The results obtained are displayed in Table 1:

Table 1. BoM Members Personal and Professional Characteristics and Their Effectiveness in Management of Public Secondary Schools

Scores on:					
School	Formal education	Experience in management	Level of training	Age	Effectiveness in management
1	21	22	21	53	53
2	20	32	22	54	65
3	50	34	50	56	88
4	40	36	51	54	83
5	42	24	24	47	60
6	23	20	41	47	69
7	19	27	27	61	48
8	25	25	25	59	60
9	47	38	46	58	86
10	20	28	26	49	59
11	41	34	39	49	68
12	24	21	21	62	50
13	27	32	28	45	65
14	49	37	39	51	87
15	33	32	32	46	72
16	22	26	26	57	51
17	36	32	42	61	71
18	36	32	33	46	61
19	37	28	41	45	70
20	50	31	50	53	84
21	33	24	22	60	64
22	20	29	27	59	66
23	25	29	29	58	68
24	18	25	27	53	49
25	40	31	30	48	68
26	34	33	32	54	72
27	20	29	22	46	58
28	19	25	21	61	57

Average	31.11	29.04	31.93	53.29	66.14
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i. BoM Members Level of Formal Education and Effectiveness in Management of Public Secondary Schools

The first objective sought to establish whether there is a relationship between BoM members' level of formal education and their effectiveness in management of public secondary schools in Nyandarua North Sub-county, Kenya. From the results in Table 1, a scatter diagram was generated in order to find out if BoM members' level of formal education is related to their effectiveness in management of public secondary schools. The scatter diagram is displayed in Figure 3:

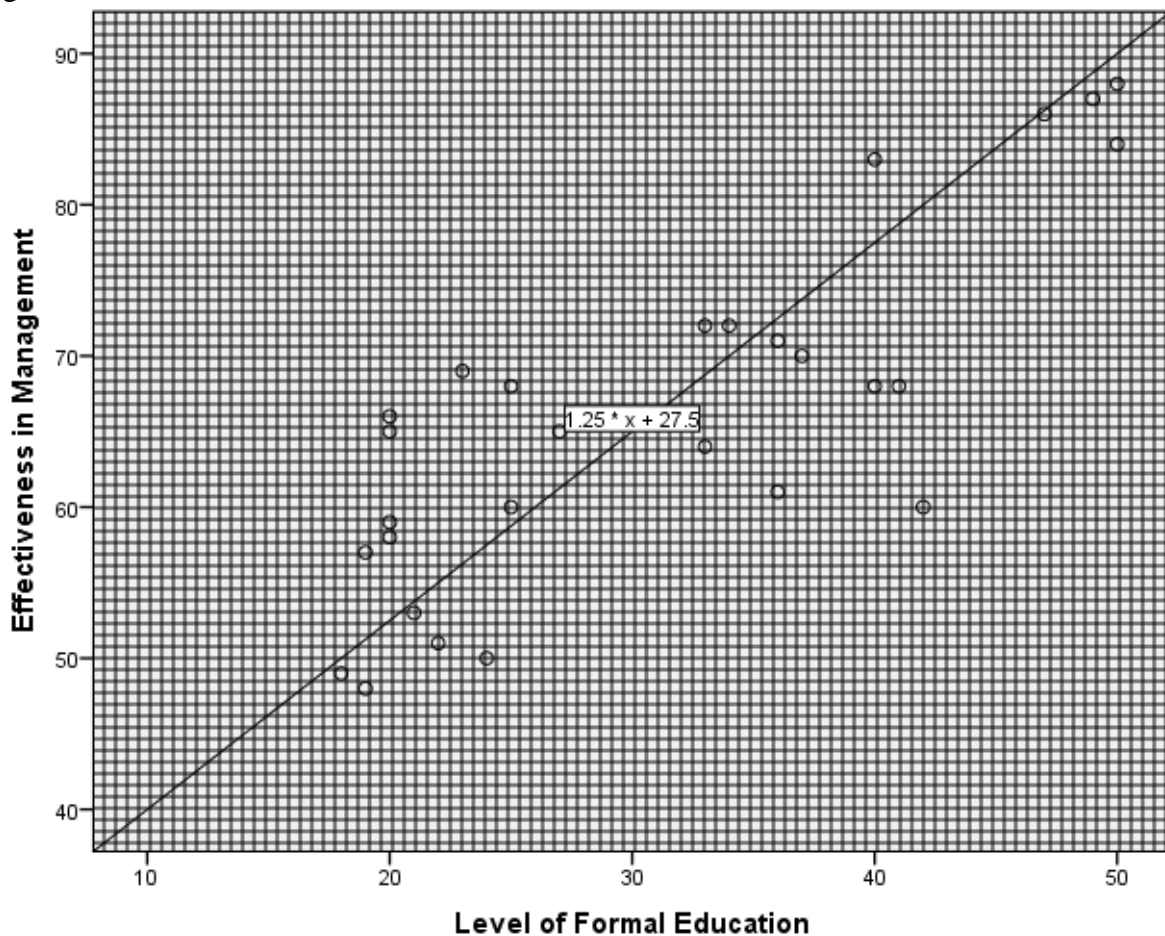


Figure 3: Relationship between BoM members' level of formal education and their effectiveness in management

The scatter diagram in Figure 3 suggests a positive relationship between BoM members' level of formal education and their effectiveness in management. This indicates that a higher score in level of formal education leads to a higher effectiveness in management. To establish whether

the relationship was statistically significant, hypothesis H01 was tested using Pearson's moment correlation coefficient. The results of the analyses are displayed in Table 2:

Table. 2 Correlation between Formal Education and BoM Members' Effectiveness in Management of Public Secondary Schools

		Pearson Correlation	
		Effectiveness	Formal education
Effectiveness	Pearson Correlation	1	.814**
	Sig. (2-tailed)		.000
	N	28	28

** . Correlation is significant at .01 level (2-tailed).

From the results in Table 2, the relationship between level of formal education and effectiveness in management was found to be significant ($r = .814^{**}$, $p = .000$). The null hypothesis was therefore rejected at $\alpha = .05$ and a conclusion made that there is a significant relationship between BoM members' level of formal education and their effectiveness in management.

This finding is in harmony with that of Kaguri et al (2014) which concluded that BoM members' achievement in education has an effect on their effectiveness in their management roles. Kaguri et al observed that BoM members who had high academic qualifications provided sound management in schools. Further, a study by Chebonya (2015) revealed that the relationship between BoM members' education achievement had an influence on their effectiveness in managing public secondary schools in Kathozweni Sub-county, Kenya. Members with higher academic qualifications were reported to possess higher interpersonal skills which can be used to make rational decisions, formulate and interpret educational policies that are within the law and therefore provide more effective management in schools.

ii. BoM Members Years of Experience in Management and Effectiveness in Management

The second objective sought to examine the relationship between BoM members' years of experience and their effectiveness in management of public secondary schools in Nyandarua North Sub-county, Kenya. From the results displayed in Table 1, a scatter diagram was generated in order to establish whether years of experience were related to effectiveness of BoM members in management of public secondary schools. The scatter diagram is shown Figure 4:

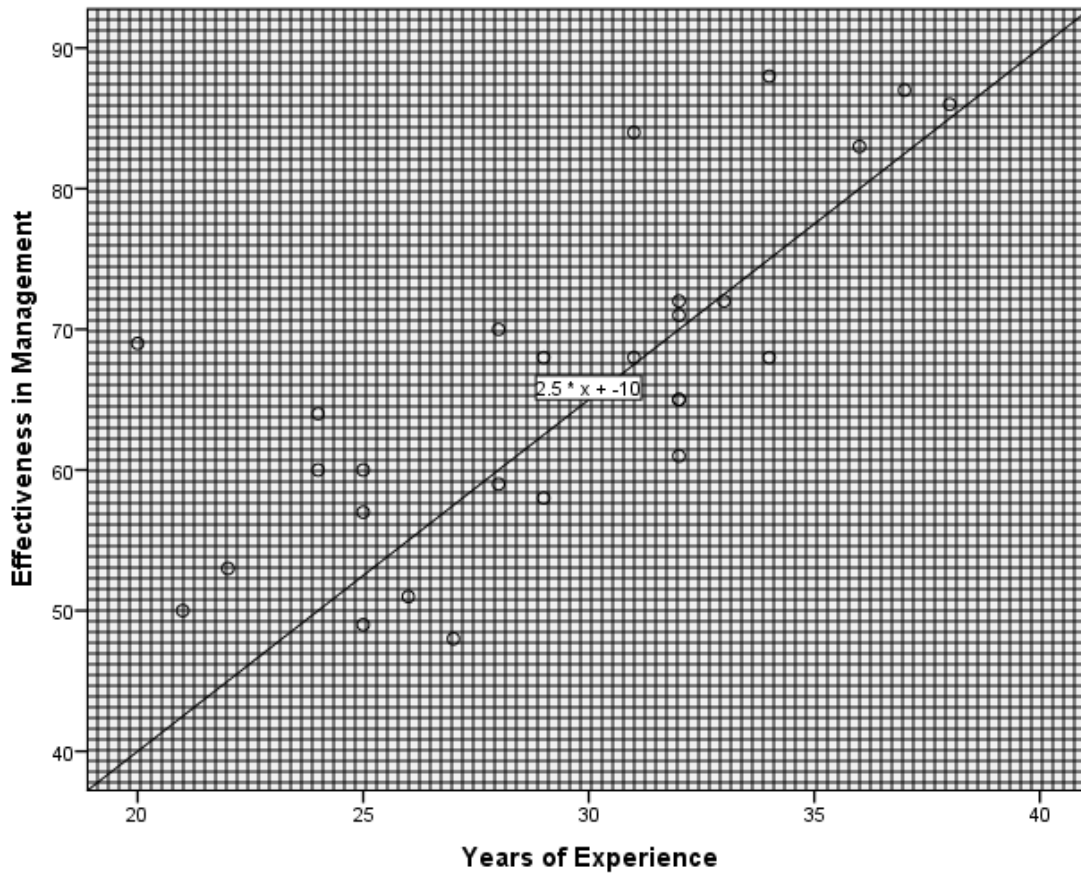


Figure 4: Relationship between BoM members' years of experience and their effectiveness in management

The scatter diagram shown in Figure 4 suggests a positive relationship between BoM members' years of experience and their effectiveness in management of public secondary schools. In order to establish whether the relationship between years of experience and effectiveness of BoM members in management was significant, hypothesis H02 was tested using Pearson's moment correlation coefficient. The results of the analyses is displayed in Table 3:

Table 3. Correlation between Years of Experience and BoM Members' Effectiveness in Management of Public Secondary Schools

		Pearson Correlation	
		Effectiveness	Experience
Effectiveness	Pearson Correlation	1	.738**
	Sig. (2-tailed)		.000
	N	28	28

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

The relationship between years of experience and BoM members' effectiveness in management was found to be statistically significant ($r = .738, p = .000$). As a result, the null hypothesis was rejected at $\alpha = .05$ and a conclusion made that years of experience in management are significantly related to BoM members' effectiveness in management of public secondary schools.

This finding is in tandem with that by Waweru and Orodho (2014) which concluded that lack of experience in management of institutions in Kiambu County led to poor performance by BoM members. Further, Dawson (2008) in a study on personal best leadership stories of educational administration observed that a particular leadership experience leads to knowledge of how obstacles are turned into accomplishments. A study finding by Mbugua et al (2012) established that inadequate skills in deliberations and decision making during Board meetings indicated that a gap existed on induction and training of BoM members on management of public secondary schools in Imenti South Sub-county.

iii. BoM Members' Level of Training in Management and their Effectiveness in Management of Public Secondary Schools

The third objective sought to examine the relationship between BoM members' level of training in management and their effectiveness in management of public secondary schools in Nyandarua North Sub-county, Kenya. From the results in Table 1, a scatter diagram was generated in order to establish whether level of training was related to effectiveness of BoM members in management of public secondary schools. The scatter diagram is displayed in Figure 5:

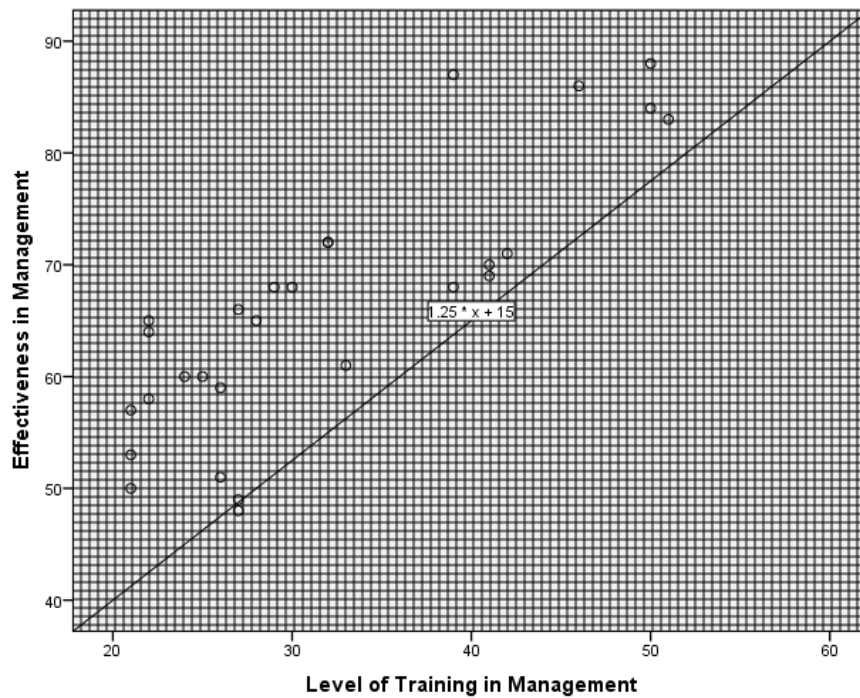


Figure 5: Relationship between BoM members' years of experience and their effectiveness in management

The scatter diagram in Figure 5 suggests a positive correlation between BoM members' level of training and their effectiveness in management of public secondary schools. In order to establish whether the relationship between level of training and effectiveness of BoM members in management was statistically significant, hypothesis H03 was tested using Pearson's product moment correlation coefficient and the results of the analyses are displayed in Table 4:

Table 4 .Correlations between BoM Members' Level of Training and their Effectiveness in Management of Public Secondary Schools

	Training	Effectiveness
Training	Pearson Correlation	.831**
	Sig. (2-tailed)	.000
	N	28

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

From the results displayed in Table 4, the relationship between level of training and BoM members' effectiveness in management was found to be significant ($r = .814^{**}$, $p = .000$). The null hypothesis was therefore rejected at $\alpha = .05$ and a conclusion made that there exists a significant relationship between BoM members' level of training and their effectiveness in management.

This result is in agreement with the findings by Otieno (2010) that the greatest challenge for full participation by BoM members in decision-making process in Siaya County was as a result of inadequate training on management of education institutions. A study by Ndiku et al (2014) further revealed that BoM members were not offered adequate training before starting their work. This gap manifested in problems such as; members being unfamiliar with procedures followed during meetings, having challenges in comprehending the language used when conducting meetings and the general perception that their role is endorsing what others have agreed upon. Additionally, a study by Kariuki et al (2012) revealed that due to lack of adequate training in management, BoM members were unable to supervise effectively and account for utilization of resources under their dockets leading to ineffectiveness in management of public secondary schools in Imenti South Sub-county.

iv. BoM Members' Age and their Effectiveness in Management of Public Secondary Schools

The fourth objective sought to examine the relationship between BoM members' age and their effectiveness in management of public secondary schools in Nyandarua North Sub-county, Kenya. The results in Table 1 were used to develop a scatter diagram to find out if BoM members' age is related to their effectiveness in management of public secondary schools. The scatter diagram is displayed in Figure 6:

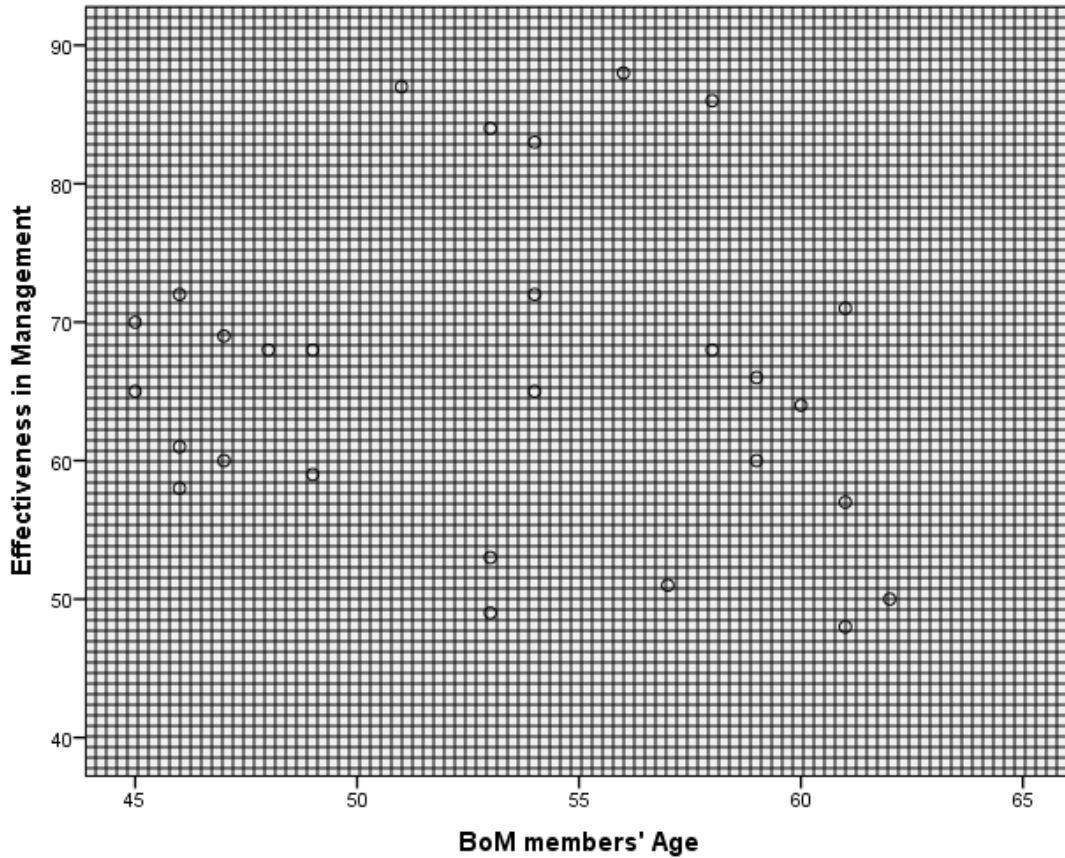


Figure 6: Relationship between BoM members' age and their effectiveness in management of public secondary schools

The scatter diagram shown in Figure 5 suggests that there is no relationship between BoM members' age and the effectiveness in management of public secondary schools. In order to ascertain whether a relationship exists between BoM members' age and their effectiveness in management, hypothesis H04 was tested using Pearson's moment correlation coefficient and the results of the analyses are displayed in Table 5:

Table 5: Correlations between BoM Members' Age and their Effectiveness in Management of Public Secondary Schools

		Correlations	
		Effectiveness	Age
Effectiveness	Pearson	1	-.124
	Correlation		
	Sig. (2-tailed)		.528
	N	28	28

The correlation between BoM members age and their effectiveness in management was found to be insignificant ($r = -.124$, $p = .528$). As a result, the null hypothesis was retained at $\alpha = .05$ and a conclusion made that the relationship between BoM members' age and their effectiveness in management is not statistically significant.

The findings from the study contradicts with that by Mutuku, Kanori and Kalai (2016) that concluded that BoM members' age and their effectiveness in management was positive among older members but negative among younger members in Kisii County. Further, a study finding by Lockenhoff et al (2011) indicated that older members of Boards of management are stable and positive as compared to younger members of the Boards. This finding suggested that age has an influence on managers' effectiveness where older members were seen to be more effective.

11. CONCLUSIONS

The study found that BoM members' effectiveness in management of public secondary schools in Nyandarua north Sub-county is significantly related to the members' level of formal education, experience and training but not their age. The study therefore concludes that BoM members' effectiveness in management of schools is a function of their level of formal education, experience and training but not age.

12. RECOMMENDATIONS

Based on the study findings, the following recommendations were made:

- i. The MoE in an endeavour to reinforce management of public secondary schools by BoMs should consider selecting members from persons who have higher academic attainments and those with previous experience in management. This will assist in enhancing their effectiveness in management of public secondary schools.
- ii. The government through the MoE should establish a comprehensive framework and avail funds for capacity building of BoM members through trainings since it is not possible to appoint all members of BoMs with higher educational attainment. This will enable members to understand their role expectations in management hence strengthen their effectiveness in management of public secondary schools.
- iii. The findings of the study reveal that there exist no relationship between BoM members' age and their effectiveness in management of public secondary schools. It is against this backdrop that the study recommends that persons who have excelled in other professions should be considered for appointment into management Boards regardless of their age owing to their higher level of literacy.

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