

**FACTORS INFLUENCING IMPLEMENTATION OF STRATEGIC PLANS
ON INFRASTRUCTURE DEVELOPMENT IN PUBLIC SECONDARY
SCHOOLS IN GEM SUB-COUNTY, KENYA**

Otieno Stephen Onyango

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DECLARATION

This research project is my own original work and has not been presented for a degree in any other university.

.....

Otieno Stephen Onyango

Date

E55/84933/2016

This research project has been submitted for examination with our approval as university supervisors.

.....

Dr. Ibrahim Khatete

Date

Senior Lecturer

Department of Educational Planning and Administration

University of Nairobi

.....

Dr. Nicholas Kut Ochogo

Date

Lecturer

Department of Open, Distance and E-learning

University of Nairobi

DEDICATION

This research project is dedicated to my parents Mr. Patrick Otieno Ogutu and Mrs. Scholastica Otieno

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LIST OF ABBREVIATIONS AND ACRONYMS

BOM	Board of Management
CDF	Constituency Development Fund
CEF	Centres of Excellence Fund
DEMA	Decentralised Education Management Activity
ESP	Economic Stimulus Package
I/OT	Industrial Organisation Theory
KCSE	Kenya Certificate of Secondary Education
KESSP	Kenya Education Sector Support Programme
KICD	Kenya Institute of Curriculum Development
KNEC	Kenya National Examination Council
MDG	Millennium Development Goals
MOE	Ministry of Education
MOEST	Ministry of Education, Science and Technology
OST	Open systems Theory
PTA	Parent-Teacher Association
RBV	Resource-Based View Theory
SPSS	Statistic Package for Social Sciences

ABSTRACT

Strategic planning process involves the development of vision as well as mission statement, conducting situational analysis, strategy design and choice. The study endeavoured to examine factors influencing implementation of strategic plan on infrastructure development in public secondary schools in Gem sub-county, Kenya. Four objectives guided the study: to examine how allocation of resources influence implementation of strategic plans on infrastructure development in public secondary schools in Gem sub-county, Kenya; to establish how school heads' project management skills influence implementation of strategic plans on infrastructure development in public secondary schools; to examine how Board of Managements' (BoM) mobilisation of funding influence implementation of strategic plan on infrastructure development; and to establish how senior management involvement in strategic control influences implementation of strategic plan on infrastructure development. A descriptive survey research design was used. The target population of the study was all the 47 public secondary schools in Gem Sub-county. A purposive random sampling technique was used to select two school administrators (1 principal and his/her deputy), 2 board of management members who had been involved in mobilising funds for infrastructural development of their schools in each school as respondents. Other respondents included 2 PTA members who are in the school infrastructure development committee and 3 teachers who have been trained in project management skills from each school. A purposive sampling technique was used to select 6 quality assurance officers from the ministry of education who have assessed infrastructure development projects in public secondary schools in Gem Sub-county. In total 384 respondents were drawn as respondents for the study. The researcher used questionnaires and observation schedules as research instruments for data collection. From the findings it was observed that there was a strong positive relationship between allocation of resources and the implementation of strategic plans on infrastructure development of public secondary schools, Pearson's correlation coefficient= 0.852. There was also a strong positive relationship between school heads' project management skills and the implementation of strategic plans on infrastructure development of public secondary schools, Pearson's correlation coefficient= 0.791; strong positive relationship between Board of Managements' (BoM) mobilisation of funding and implementation of strategic plans on infrastructure development in public secondary schools, Pearson's correlation coefficient= 0.698; positive relationship between senior management involvement in strategic control and implementation of strategic plans on infrastructure development in public secondary schools, Pearson's correlation coefficient= 0.772. The study concluded that allocation of resources, school heads' project management skills, Board of Managements' (BoM) mobilisation of funding, and senior management involvement in strategic control positively influence the implementation of strategic plans on infrastructural development of public secondary schools. The study therefore recommends the enhancement of these factors for effective implementation of strategic plans on infrastructural development of public secondary schools.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Institutions across the world are becoming increasingly aware of the turbulent and unpredictable nature of the environment in which they operate, but despite the awareness, a failure to properly implement strategic plans may be detrimental to the success of infrastructure development of such organisations. The awareness in an institution is crucial for the successful performance (Hill & Jones, 2010). Adequate infrastructure in learning institutions correlates to the provision of quality education to all students, irrespective of their socio-economic background, which is one of the fundamental objects the Kenyan government, through the ministry of education (MOE) aimed to attain (Government of Kenya, 2012). The social pillar of vision 2030 whose aim is to make Kenya a middle-income country, as envisioned in the millennium development goals (MDG) has supported the goal. The recent adoption of strategic planning in public secondary schools in Kenya has resulted in changes in the management of schools. Decentralised Education Management Activity (DEMA, 2011) emphasises that embracing strategic planning in secondary schools to decentralise school management for the realisation of better school performance. The decentralisation demands inclusion of every key stakeholder in the design and implementation of strategic plans.

A number of factors such as resource allocation, project management skills of school heads, stakeholder commitment to funding mobilisation, and strategy control among others influence strategic plan implementation on infrastructure development in public schools. According to

survey conducted on financing education by Steer and Katie (2015) of a Centre for Universal Education at Brookings, United States, 7.5 million voted a declining trend in the resource allocation to education financing globally. The findings reported that the provision of basic education to every child in 46 low as well as middle-income countries would need an extra \$26 billion yearly, which is less than amount spent on the U.S defence budget or 50 percent of the Sochi Olympics expenditure. In Africa, the report cited that donors were on the verge of de-prioritising basic education owing to the fact that the total amount of overseas development assistance rose significantly over the recent past, the amount of financial resources allocated to education decreased to almost 10 percentage and basic education fell by more than 16 percentage in 2009-2012. Sub-Saharan African countries suffered greatly because of the reduced financial resource allocation from donors. The donor funding support is usually inconsistent and uncoordinated. The number of donors present in countries with greatest needs for aid varies significantly from 6 in Central Africa Republic to 23 in Tanzania (East Africa). The report acknowledges the findings by Transparency International (2015) about global corruption report on education, citing the high cost of weak governance as well as accountability. Nigeria and Kenya to have misappropriated funds allocated to education, which could have sustained some extra 150,000 children to continue their learning in primary schools, with USD 10.5 million misappropriated annually in Nigeria annually and USD 8.5 million annually in Kenya.

A survey conducted by Research Group on International Development in Teacher Education the Open University acknowledged that project management skills are among the key reforms in schools. In most parts of the world, a project management skill is current paramount in the

implementation of strategic plans on infrastructure development. In Europe, some countries such as England, France, and Germany are on the leading front, compared to Austria when it comes to training school heads in project management skills (Verspoor, 2008). Nonetheless, Africa is still trailing low, with South Africa being cited as one of the countries that is leading in training school heads in project management skills (Moon, 2007). In Kenya, project management is still in its infant stage with most school heads still lacking this crucial resource in the implementation of strategic plans.

Globally, sponsorship funding is declining with most sponsors becoming reluctant in funding educational projects owing to the challenges of global economic slowdown and rising cases of misappropriation of donor funding (Steer & Katie, 2015). The challenge is more profound in the developing world such as the Sub-Saharan Africa than the developed countries such as Europe and the U.S. In Africa, Nigeria and Kenya have been cited as leading in misappropriation of education funds. The tendency makes it hard for stakeholders in Kenya to successfully source for funding and reliable sponsors to consistently donate towards the development of infrastructural projects in schools.

Strategic planning process entails the development of vision as well as mission statement, conducting situational analysis, strategy design and choice. Strategic decisions show the link between the organisation and its external environment, include the whole organisation, depend on inputs drawn from other functional areas of the organisation, have direct impact on operational and administrative activities, and are thus important for the sustenance of an

organisation (Pearce & Robinson, 2012). Kenya Education Sector Support Programme (KESSP) launched strategic planning practices in Kenya in 2006-2011. KESSP, a five-year programme, was rolled out by Kenya's MOE to strengthen the provision of education in Kenya, as education's governance devolves to the county levels under the new constitutional dispensation. A report by DEMA (2011) records that educational managers in every district in Kenya as well as 4,000 schools have gained skills in strategic planning and performance-based management. According to this report, a sum of 4,522 educational stakeholders comprising PTA members, BOG members, principals, their deputies, and teachers had obtained some training in performance-based management as well as strategic planning by 2011 (DEMA, 2011). Strategic planning and implementation is therefore paramount for educational success in the country.

Strategic planning refers to an organisation process that provides a definition to its strategy, decision-making, and resource allocation to attain a stated strategy. It can extend to cover control mechanisms that guide strategy implementation (Hill & Jones, 2010). Strategic planning became dominant in the 1960s and continued to be a crucial aspect of strategic management. Strategists or strategic planners execute a strategy, specifically by engaging various parties as well as research resources in their assessment of an organisation and its association to a competing environment.

Strategy implementation is termed as the process of translating planned strategies into carefully implemented action. It is a complex, iterative, and dynamic process that involves a series of activities as well as decisions, which employees and managers assume, guided by related external and internal factors, to transform strategic plans to reality, with the aim of attaining

strategic objectives (Pearce & Robinson, 2012). Effective execution of strategy needs diligent endeavour to achieve excellence in every operation, a task dedicated to the entire team of management, and therefore success relies on the level of skills and cooperation of the management to push for desirable changes to stimulate the success of their organisational units or departments (Verspoor, 2008). Strategy implementation can as well be perceived as a management action framework for executing and implementing selected strategy which emanates from analysing what the organisation ought to have done better or differently, on the basis of its organisational circumstance or operating practices to conduct the strategy fully and attain the desired strategic and financial performance.

Strategic planning in schools is a key predictor of their success, particularly on the attainment of objectives, goals, and mission. Most current studies in Kenya confirm that a significant percentage of secondary schools in the country have adopted strategic plans. A study conducted by Muriuki (2010) most schools in Kenya were conducting strategic planning. Nonetheless, the researcher cited a concern that significant impact of practising strategic planning would only be achieved in schools if strategic plans were effectively implemented. It implies that strategic plans can hardly yield positive outcome on school performance unless they are effectively implemented (Boit & Kipkoeh, 2012). A lack of proper implementation of strategic plans can be linked to failed projects, as evidenced in incomplete or poorly constructed classes, dormitories, laboratories, and toilets meant to serve students.

In Kenya, the educational sector has embraced significant plans to reform institutions at all levels since 2003. As stipulated in the Sessional paper number 14 (2012), the education bill classifies public schools as operated, owned, and established by government. According to statistics released by MOE (2013), Kenya has 5,221 public secondary schools that were funded by government. Kenya Institute of Curriculum Development (KICD, 2014) acknowledges that the numbers of public secondary schools are on an upward trend, with the totals rising from 6,807 in 2013 to 7,686 in 2014 (Ministry of Education, Science and Technology, MOEST, 2014).

According to the Educational Sector Report, released in September 2016, the government of Kenya has up-scaled the its budget allocation on school infrastructure development. It disbursed a sum of KES 73.9 million to 68 schools in 2013 (Educational Sector Report, 2016). The disbursement increased significantly in 2014/15, with Ksh 108 million being sent to 88 schools under regular infrastructure while Ksh 1,562,959,636 was disbursed under public infrastructure initiative programme to benefit 345 schools. In 2015/2016 financial year, a total of Ksh 30 million was disbursed to 238 public secondary schools, which comprised Ksh 24 million that went to benefit special needs secondary schools as a one-off intervention to benefit persons with disabilities as the Kenya Constitution 2010 dictates (Educational Sector Report, 2016).

Public secondary schools in Kenya are tasked with the responsibility of ascertaining academic performance of students in national examinations. The requirement has piled pressure on schools to improve grades their students attain in Kenya Certificate of Secondary Education (KCSE). Pressure from parents, stakeholders, sponsors, and government has made schools design strategies to improve their performance. Some of the developed strategies have yielded success

while others have been observed to be counterproductive as evident in schools' performance in national schools that is skewed to the benefit of provincial and national schools (Republic of Kenya, 2012). In conformity to the MOEST policy on strategic planning, public secondary schools have to create and implement their strategic plans that ought to be in agreement with strategic plan of the ministry, the Constitution of Kenya (2010), and the Vision 2030.

Currently, several public secondary schools are facing a number of challenges regarding the attainment of set goals and objectives. The claim is supported by the fact that schools hardly operate in the environment that gives them complete autonomy to run their affairs. Their operating environment is one such that government or its agencies fully or partially control or interfere with the running systems of schools (Wanjala, Khatelel, Mbaka & Asiago, 2014). Skewed resource distribution is another dominant challenge as some schools are endowed with more resources than others are. Scarcity of resource availability renders it hard to run school systems effectively and such schools have to fully rely on external funding to facilitate the running of their operations. Geographical site of public secondary schools deters the utilisation of competitive advantage. Schools located in bigger towns and cities tend to enjoy a higher competitive advantage as compared to their rural counterparts (Republic of Kenya, 2012). The demand requirement of the urban and rural schools tend to differ significantly, thus the disparity warrants the implementation of different strategies to address their varying problems.

Resource allocation positively influences the implementation of strategic plan on infrastructure development in schools. Wanjala *et al* (2014) acknowledged that the government needed to step up resources required for constructing classrooms, laboratories, dormitories, and toilets, implying that when adequate resources are allocated to schools, it is highly probable that more infrastructural development projects was realised. Nonetheless, Arasa and Mayunga (2009) report findings cautions that the development can only be realized when school heads are equipped with proper project management skills. It implies that project management skills of school heads has a positive correlation with infrastructure development of public secondary schools, as the report cited that schools whose principals and deputies had not acquired some training or qualification in project management skills had failed or incomplete projects. A report by Khamati and Wesonga (2013) cited that Board of Management (BoM) play crucial role in the mobilization for funding but cautions that their failure to play leadership role, inadequate commitment, training in management of school projects, and a lack of harmony between them and school principals can adversely affect the success of infrastructure projects. A report by Steer and Katie (2015) also confirms that funding by sponsors is crucial for boosting infrastructural development, but caution must be exercised to avoid misappropriation of donor funding.

Gem sub-county is one of the six constituencies found in Siaya County of Kenya. The sub-county has an approximated area of 353.20 square kilometres, with a population size of 160,675 people. It has 47 public secondary schools (QAO, 2018). The schools heads are the principals who constitute part of the boards of management (BOM). The BOMs are task with the

responsibility of managing the institutions as agents of MOEST. Schools execute the role of implementing programmes and policies of MOE that comprise curriculum implementation.

Gem sub-county has experienced several challenges of a shortage of educational equipment. According to the QAO Siaya County Ministry of Education report (2018), the sub-county has more classrooms that are incomplete and laboratories (38.3%, 18 public secondary schools with incomplete classrooms and laboratories) compared to Rarieda (19.1%, 9 public secondary schools with incomplete classrooms and laboratories) and Bondo (26.4%, 14 public secondary schools with incomplete classrooms and laboratories). The problem can be highly attributed to poor implementation of strategic plans in public schools. Various strategies, including capacity building of teachers, parent-teacher associations (PTAs) and board of management (BOM) as well as stakeholders' sensitisation on their roles.

1.2 Statement of the Problem

Effective implementation of strategic plans enhances infrastructural development. Nonetheless, reports gathered from Kenya National Examination Council (KNEC) have depicted that public schools have inadequate learning facilities as compared to private schools in the recent past (Republic of Kenya, 2012). A lack of adequate laboratories for students to perform practical in such institutions is one of the key factors that derail the performance of public schools. In 2012, the government of Kenya through the ministry of education introduced the sessional paper number 14 to realign education and training sector to Vision 2030 and the Constitution of 2010, which also required all school managers to create strategic plans to help them manage their institutions of learning effectively and efficiently. A noted concern was the declining

performance of schools, which could be highly attributed to stalled infrastructural development projects witnessed in schools. Despite the ministry of education's agenda to improve the quality of learning in public schools by mandating the sessional paper no. 14 (2012), most public secondary schools still lag behind in infrastructural development as compared to private secondary schools.

Most public secondary schools in Gem Sub-County of Siaya County have overstretched infrastructure facilities. It is disturbing that some public schools in Kenya still even lack basic infrastructural facilities such as desks, water taps, laboratories, dining halls, dormitories, and toilets (QAO, 2018). The subsidised secondary school education programme has resulted in the increment in the numbers of pupils and students being enrolled in public primary and public secondary schools respectively. The escalation of the pupils joining public schools has put much pressure on the existing infrastructure facilities. Hence, there is still a compelling need to expand the number of classrooms to contain the required 45 students per classroom. The need extends to cover the expansion of classrooms, water supply units, lavatories, electricity installation, laboratories, libraries, computer laboratories, and dining halls among others.

Investment in infrastructural (physical) facilities in most Kenyan schools has attracted much funding from Centres of Excellence Fund (CEF), Local Authority Transfer Fund (LATIF), Economic Stimulus Package (ESP), Constituency Development Fund (CDF), and Kenya Education Sector Support Programme (KESSP). Despite the heavy funding under these initiatives, it has failed to yield significant impact in infrastructural development in most public secondary schools in Kenya. KESSP 2005-10 notes flawed implementation in infrastructural

projects such as inadequate or a lack of learning and playing equipment, non-existing school laboratories, a lack of essential instructional resources, and inadequate computer devices or a lack of internet connectivity at school computer laboratories.

1.3 Purpose of the Study

The purpose of this study was to establish factors influencing implementation of strategic plans on infrastructure development in public secondary schools in Gem sub-county, Kenya.

1.4 Research Objective

The overall objective of this study is to examine factors influencing implementation of strategic plans on infrastructural development in public secondary schools in Gem sub-county.

The study was grounded on the following specific objectives:

- i. To examine how allocation of resources influence implementation of strategic plans on infrastructure development in public secondary schools in Gem sub-county, Kenya
- ii. To establish how school heads project management skills of influence implementation of strategic plans on infrastructure development in public secondary schools
- iii. To examine how Board of Managements' (BoM) mobilisation of funding influence implementation of strategic plan on infrastructure development
- iv. To establish how senior management involvement in strategic control influences implementation of strategic plan on infrastructure development

1.5 Research Questions

The study was guided by the following research questions:

- i. How does allocation of resources influence implementation of strategic plan on infrastructure development in public secondary schools in Gem sub-county, Kenya?
- ii. How do school heads project management skills influence implementation of strategic plan on infrastructure development in public secondary schools in Gem sub-county, Kenya?
- iii. How does the BOM's mobilisation of funding influence implementation of strategic plan on infrastructure development in public secondary schools in Gem sub-county, Kenya?
- iv. To what extent does senior management involvement on strategy control influence implementation of strategic plan on infrastructure development in public secondary schools in Gem sub-county, Kenya?

1.6 Significance of the Study

The study findings may benefit students pursuing their studies in education planning and management as it may complement the existing knowledge in strategic management theory. Further, the study findings may also benefit day-to-day application of managerial ideals like monitoring and evaluation.

The study findings may benefit the ministry of education in formulating policies that may find the implementation of schools' strategic plan. Government as well as other stakeholders in the education sector may also benefit from the study findings when developing and implementing strategic plans.

The study findings may also be of help to school managers, their deputies, and entire staff members of the schools in understanding factors that guide implementation of strategic plans on infrastructural development projects.

1.7 Limitations of the Study

Some public secondary schools in Gem Sub-county are surrounded by River Yala and wetlands, which made it difficult for the researcher and his research assistants to access some schools. The researcher used the locals who knew how to navigate Yala River and most of the interviews were done in the morning hours before the heavy downpour. Some schools are located far apart, with poorly constructed and maintained roads. The researcher overcame this challenge by using motorbikes *boda-boda* to access such areas as motor-vehicles could hardly access such routes.

1.8 Delimitations of the Study

The study has taken a cross-sectional dimension and only collected data at one point in time. It assessed factors influencing implementation of strategic plan on infrastructure development in public secondary schools in Gem sub-county, Kenya. The research variables examined included allocation of resources, project management skills of school heads, BOM's mobilisation of funds, and sponsors' funding. The study targeted any other public secondary schools' principals and their deputies, BOMs, PTA members, and teachers except MOEST or significant other (community members) given that they are probably active participants in school infrastructure projects.

1.9 Assumptions of the Study

The study assumed that

- i. Every public secondary school's principals and their deputies, BOMs, PTA members, and teachers in Gem Sub-County have knowledge of or experience in resource allocation, project management skills of school heads, BOM's commitment to funding mobilisation, and sponsor funding.
- ii. BoMs were qualified members as indicated in the Basic Education act 2013.

1.10 Definition of Key Words in the Study

BoM Mobilisation of funding	Refers to leadership role BoM plays in sourcing for funds to drive infrastructure projects in public secondary schools, their commitment, training and education in management of school projects, as well as harmony between BoM and school heads
Infrastructure development	Refers to construction of classrooms, toilets, library, laboratories, dining halls, dormitories, and assembly halls among other facilitates in public secondary schools.
Project management Skills	Refers to training in management areas, budget and accountancy, training in project management, project control, monitoring and evaluation of infrastructural development projects in public secondary schools

Resource allocation	Refers to a plan of using existing resources, specifically human resources and funds in the near term to attain strategic implementation goals for the future.
Strategy Control	Refers to processes used by public secondary schools to control the design and implementation of strategic plans on infrastructural development.
Strategic plans	Refers to process documents that public secondary schools use to define their strategy, or direction, and making decisions on allocating its resources to pursue their strategies.

1.11 Organisation of the Study

The study is organised in five chapters: chapter one is the introduction focusing on the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, limitations and delimitations of the study and organization of the study. The second chapter is on the review of the related literature on factors influencing strategic plan implementation on infrastructure development, theoretical framework, conceptual framework and summary of the literature. Chapter three is the research methodology covering the research design, target population, sample size and sample selection techniques, research instruments, data collection procedure, data analysis techniques and ethical considerations. Chapter four covers data presentation, interpretation, and discussion of findings

and chapter five highlights a summary of the findings, conclusion, and recommendations. Areas for further studies have also been suggested.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

The foregoing chapter presents a review of related theoretical as well as empirical literature. The review of related literature explored the theoretical basis upon which the study was based. It also examines existing literature on the key study variables of allocation of resources, project management skills of school heads, BOM's mobilisation for funding, sponsors' funding, and their influence on implementation of strategic plans on infrastructural development, theoretical, and conceptual framework.

2.2 Concept of Strategic Plan and Implementation

Strategic planning refers to an organisation process that provides a definition to its strategy, decision-making, and resource allocation to attain a stated strategy. It can extend to cover control mechanisms that guide strategy implementation (Hill & Jones, 2010). Strategic planning became dominant in the 1960s and continued to be a crucial aspect of strategic management. Strategists or strategic planners execute a strategy, specifically by engaging various parties as well as research resources in their assessment of an organisation and its association to a competing environment.

Strategy implementation is termed as the process of translating planned strategies into carefully implemented action. It is a complex, iterative, and dynamic process that involves a series of activities as well as decisions which employees and managers assume, guided by related external and internal factors, to transform strategic plans to reality, with the aim of attaining strategic

objectives (Pearce & Robinson, 2012). Effective execution of strategy needs diligent endeavour to achieve excellence in every operation, a task dedicated to the entire team of management, and therefore success relies on the level of skills and cooperation of the management to push for desirable changes to stimulate the success of their organisational units or departments (Verspoor, 2008). Strategy implementation can as well be perceived as a management action framework for executing and implementing selected strategy which emanates from analysing what the organisation ought to have done better or differently, on the basis of its organisational circumstance or operating practices to conduct the strategy fully and attain the desired strategic and financial performance.

2.3 Resources Allocation on Implementation of Strategic Plans

Infrastructural development in public secondary schools is influenced by financial as well as other resources. According to a study by Ngware, Wamukuru, and Odebero (2006), quality and adequacy of learning and teaching materials, equipment, and physical facilities have a positive impact on quality of education as they ascertain how effectively educational curriculum is implemented. Quality of education can hardly be sustained in the absence of adequate quantity and quality resources. A study by Avikoge (2013) confirms that quality and quantity of available are strong predictors of successful infrastructure projects, evidenced in adequate physical facilities and equipment.

Republic of Kenya in the Master Plan on Education and Training (1997-2010) provides a conceptualised planning for secondary schools regarding financial resources and human resources. The plan emphasises that quality management can only be achieved in secondary

schools by engaging a properly qualified as well as a highly motivated workforce that understand both the curriculum and learners' needs. Secondary school heads have to be well conversant with management skills necessary for successful implementation of strategic plans, school administration, as well as effective and efficient management. The study intended to ascertain the nature of resources required for creating strategic plans in public schools as well as whether adequate resources were available. In the study, effect of finances and school heads and teachers' capacity to lead strategic planning process were investigated. It concluded that finance and competency of school heads and their teachers in leading strategic planning is crucial in the implementation of strategic plan.

According to a study by Kitonga (2012), funds are crucial for training teams so that they can become acquainted with their responsibilities as well as expectations. Funds are also important during the data collection stage, specifically gathering the required information from the environment. It facilitates the publication of communication documents such as fliers and pamphlets. The researchers also established that the availability of adequate funding make it possible for project teams to travel and hold meetings. Upon project formulation, money is also needed for implementation. The study also suggests that a plan should be developed only if it can be implemented. Jones (2012) records that only projects that generate highest returns should be funded, once crucial project areas have been identified. In public secondary schools, money is received from government grant, government funding, bursary, school-income generating initiatives, donors, and parents' contribution. Nonetheless, the study identifies a resource

allocation gap in terms of a lack of adequacy in the implementation of infrastructural projects in public secondary schools.

2.4 School Heads Project Management Skills on Implementation of Strategic Plans

A study conducted by Mutuku and Mutuku (2009) established that school heads require training in key management areas of general project management, budget preparation, and accountancy. A study by Ambale and Waiganjo (2015) also confirmed that school heads require training on project management. Nonetheless, previous findings by Jisuveyi (2014) ascertained that majority of teachers were promoted to head schools without training in project management. The findings concurs with the previous observation made by Mbaya and Masinde (2014) that most teachers were promoted without first subjecting them to some kind of orientation owing to the nature of work they are supposed to perform as educational programme managers.

In a study by Wairimu (2016), the researcher observed a gap in the adequacy of training schools heads. The lack of adequate training of principals profoundly affected their ability to initiate project implementation, project scheduling, human resource management, budgeting and accounting, and project control. The researcher cited this as a possible barrier to effective implementation of strategic plans in infrastructural projects in public schools in Kenya, as evidenced in the rising numbers of installed projects as well as dilapidated structures that have resulted in poor academic performance.

2.5 Board of Managements' Mobilisation of Funding on Strategic Plan Implementation on Infrastructural Development

According to a study by Khamati and Wesonga (2013), the escalating increment in learners' enrolment in public in the recent years because of free primary education has put a lot of strain in the existing infrastructure facilities. It has resulted in the scarcity of funds to contain the rising demand for education provision. It has also made the implementation of school project to be a challenging initiative to most stakeholders, who are PTA members, teachers, donors, parents, teacher committees or board of school management (BOM), and school alumni to successfully mobilise for funding, donation, and *harambees*. The study indentified a lack of effective administration in most public schools, for instance, most school heads were not dynamic, resourceful, and innovative (Khamati & Wesonga, 2013). School heads require good interpersonal skills to interact well with school community, parents, students, and staff. All these stakeholders need to participate actively in the decision-making as well as project implementation practice for them to remain supportive of the school heads in the implementation initiative. The researchers cited that infrastructural projects can only succeed when school heads create a conducive environment of full participation of all stakeholders.

In schools, boards of management (BoM) constitute stewards of crucial amenities. They review school overhead costs and appraise school fees to make sure that spending is done within the budget. A study Wanjala et al. (2014) posits that the BOMs as well as school heads are well versed with accounting knowledge, project management skills, procurement and supplies, human resource management, and legal matters. Nonetheless, Ambale and Waiganjo (2015) hold the

view that BOMs have failed to show responsibility by playing key leadership roles towards the enhancement of total quality management (TQM) practices. Wangatho (2007) confirms that the majority of the BOMs lack adequate commitment, training, or education in the management of school projects. The implementation of strategic plans on school infrastructure projects is also affected by disharmony between school heads and BOMs as most principals may tend to ignore BOMs' decision. As a result, unsystematic and haphazard implementation of strategic plans on development of school infrastructure projects or misuse of school funds received from MOE.

2.6 Senior management involvement on Strategy Control on Strategic Plan Implementation on Infrastructural Development

Uzel (2015) consents to the fact that strategy control positively influence the implementation of strategic plan. The researcher incorporated four elements in their studies, including the articulation of the strategic outcomes under investigation, describing strategic activities to be performed to achieve the intended outcomes, defining a technique to be used in tracking the progress achieved against the two elements. It is usually carried out by monitoring a small portion of performance measures and linked target values. The final element involves the identification of effective intervention mechanism that can enable observers, usually the management to correct, change or adjust activities of the organisation where targets have not been attained. The elements imply that senior management has to be involved in determining strategic activities which component parts of an organisation pursue, which has made some to make observation that strategic control is more effective in organisations that focus on one line of activity.

According to Gavetti and Ocasio (2015), strategic control is crucial during strategic plan implementation since it enables project stakeholders to re-think about unexpected problems and changes. It makes them look for the wider picture and make sure that all pieces are aligned correctly. Instead of focusing on problems that have already happened by reacting to them, strategic control enhances the identification of internal and external uncertainty because of emerging threats and opportunities, a lack of direction, a lack of awareness needs, facilities, and environment issues, which are risks likely to influence the desired outcomes of strategic plan implementation.

2.7 Summary of the Literature Review

The study intended to ascertain factors influencing implementation of strategic plan on infrastructure projects in public secondary schools in Gem Sub-County, Siaya County. Other studies, including Wairimu (2014), Jisuveyi (2014), and Ambale and Waiganjo (2015) among others were conducted in different parts of the country, but none of the studies have been conducted in Gem Sub-County, Siaya County, which is a factor that motivated the researcher to this study on this study locale. The aim was to fill the existing research gap. The findings obtained from this study was extrapolated to ascertain key gaps in the implementation of infrastructure projects in public secondary schools in Kenya.

2.8 Theoretical Framework

Strategy implementation forms a key ingredient of strategic planning; a discipline based on Resource-Based View (RBV) theory. The study was guided by Resource-Based View (RBV)

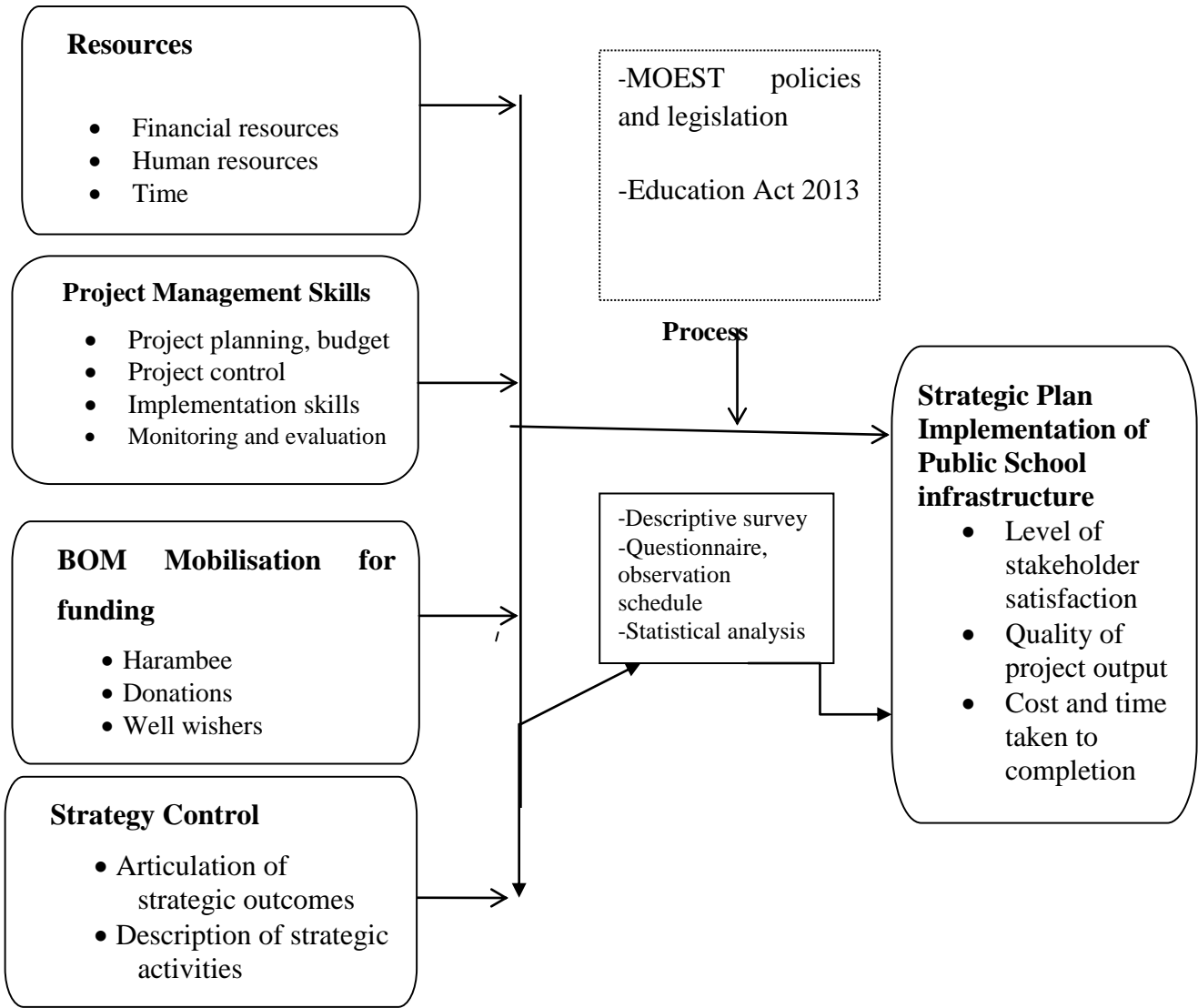
theory originated from the works of Jay Barney's article, "Firm Resources and Sustained Competitive Advantage," (1991) that is perceived as pivotal in the emergence of this theory. Resource-based value (RBV) theory are utilised by organisation to enhance the generation of strategic inputs required to effectively create and implement strategies as well as to help maintain strategic flexibility. The basis behind an organisation's competitive advantage rests on the application of various resources available that an organisation can utilise. On the same line of thought, Priem and Butler (2001) postulate that a competitive advantage can be attained when the available resources are heterogeneous, but they should not be perfectly mobile. Such resources have to be non-substitutable, inimitable, rare, as well as valuable in nature to attain a sustainable advantage.

According to Hitt *et al* (2005), resources can be categorized into three groups, comprising human, physical as well as organisational capital, including talented and skilled managers, finances, patents, skills of individual workers, and capital equipment. Resources alone may not be sufficient towards driving competitive advantage but resources must be integrated in task delivery to enhance the capability of the organisation. Hitt *et al* (2005) further emphasise that rare resources of the organisation as well as its capability give the foundation for strategy development. RBV theory was used in this study to answer the question on how resource allocation influences strategic plan implementation on infrastructural development in public secondary schools. Open system theory was used to assess the level of BOMs' commitment to mobilising funds since mobilisation requires high level of interaction with other members of the society.

2.9 Conceptual Framework

The section presents the conceptual framework of factors influencing the implementation of strategic plans on infrastructural developments in public secondary schools. Factors of resources, project management skills, BoM mobilisation for funding, and senior management involvement in strategy control constitute the independent variables while implementation of strategic plan on infrastructure development in public secondary schools is the dependent variable and was measured by level of stakeholder satisfaction, quality of project output, and cost and time taken to complete a project.

Figure 2.1: Diagrammatic Representation of the Conceptual Framework



The figure 2.1 presents the conceptual framework of this study, indicating the link between the factors of strategic plan implementation (as the independent variables) and their influence on the development of school infrastructure (as the dependent variable). The control variables for this study involve MOEST policies and regulations as well as Education Act (2013). In resource allocation, the indicators of project costs and funds allocated was considered. In project management skills, the indicators of project planning, project control, and monitoring and evaluation was considered. In stakeholder commitment to funding mobilisation, the indicators of BOM, teachers, MOEST, and PTA was considered. In the variable of poverty level, the indicators of source of income, economic activity and parents' contribution to school infrastructural development projects was considered. In infrastructure development, the indicators of level of stakeholder participation, quality of project output, cost and time involved to project completion was considered.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter covers the methodology utilised attain the objectives of this research. It explored the research design, target population, sample size and sampling procedures, research instruments, as well as ethical considerations. It also highlighted data gathering procedures and data analysis methods.

3.2 Research Design

The study adopted a descriptive survey design to explore factors influencing implementation of strategic plans on infrastructure development of public secondary schools in Gem Sub-County, Siaya County. Cooper, (2000) states that a descriptive study is concerned with finding out who, what, where and how of a phenomenon which is the concern of this study. Descriptive design was used to facilitate description and inference building about population parameters and the relationship among two or more variables. The descriptive design was utilised since it enabled the researcher to collect both descriptive and numerical data to investigate the nature of the relationship between the study variables.

3.3 Target Population

The study targeted all public secondary schools in Gem Sub-County. According to Quality Assurance Officer Ministry of Education Gem Sub-County report (2018), there are 47 public

secondary schools in the Sub-County. Hence, the study targeted all the 47 public secondary schools.

3.4 Sample Size and Sampling Technique

The researcher observed and sampled 42 public secondary schools that have ongoing infrastructural development projects or completed projects within the past five years of the study from the targeted population of 47 public secondary schools in Gem-Sub-County. A purposive random sampling technique was used to select two school administrators (1 principal and his/her deputy). The purposive random sampling was also be used to select 2 board of management members who have been involved in mobilising funds for infrastructural development of their schools. A simple random sampling technique was used to choose 2 PTA members who are in the school infrastructure development committee. A simple random sampling technique was also be used in selecting 3 teachers who have been trained in project management skills. A purposive sampling technique was used to select 6 quality assurance officers from the ministry of education who have assessed infrastructure development projects in public secondary schools in Gem Sub-county. The samples was taken from each of the 42 public secondary schools to be sampled.

A sample size of 384 respondents was drawn using Fisher *et al* (1991) formula as shown below:

$$n = z^2 pq / d^2$$

Where:

n - The desired sample size

z - The standard normal deviation, set at 1.96, which corresponds to 95% confidence level

p - The proportion in the target population is estimated to have a particular characteristic. If there is no reasonable estimate, then apply 50% (this study used 0.50)

q = 1.0 – p; d = the degree of accuracy desired, here set at 0.05 corresponds to 1.96.

In substitution, $n = ((1.96^2 \times 0.5 \times (1-0.5))/0.05^2) = 384$

School heads = 2 x 42 = 84; BOM = 2x 42 = 84; PTA Members = 2 x 42 = 84

Teachers = 3 x 42 = 126; Quality Assurance officers = 6

The rationale for the choice of purposive random sampling method rests on the fact that it enhances the selection of only individuals with adequate information and experience in implementation of strategic plans in school infrastructure development.

3.5 Research Instruments

The study used questionnaires to collect data. Bowling (1999) established that the application of questionnaire for survey research was the best instrument for collecting data since surveys are usually conducted in natural settings, this tool increases the external validity of the research. The researcher designed questions based on the variables of the study and the indicators measured.

The questionnaire had major sections. segment A looked for responses on Bio-information of the respondent. section B was on elements influencing the implementation of strategic plans on infrastructure improvement in public secondary schools. the second segment included sub-sections, which include resource allocation at the implementation of strategic plans on infrastructure improvement in public secondary schools, project management competencies on the implementation of strategic plans on infrastructure development in public secondary

faculties, BoMs' dedication to mobilisation of price range, and parents' poverty degree at the implementation of strategic plans on infrastructure development in public secondary faculties.

The study also intends to use observation schedules to see the status of on-going or completed infrastructural projects within the sampled public secondary schools. The tool is appropriate because it provided the researcher with the opportunity to observe the current status and take pictures of incomplete projects. Focus group discussion (FGD) was arranged to get interactive responses from the BoM and teachers. The researcher also conducted document analysis to gather secondary data, especially quality assurance reports from the ministry of education at Gem Sub-county. The reports were suitable for the analysis since they are deemed generated by professionals with expertise in assessing infrastructure projects in schools.

3.5.1 Validity of the Research Instruments

Valid data collection instrument is one, which measures the construct meant to be measured. The researcher made sure and enhance the validity of the data collections instruments by working with two experts who are also the supervisors of a research in strategic plan implementations: the Ministry of Education quality assurance officer at Gem Sub-County and the university lecturer from the department of education planning and management. The experts checked the questions against the objectives, the variables and the indicators under each variable. This helped in making sure that the content validity of the instruments. Items that seem unclear were either be discarded or modified.

3.5.2 Reliability

The reliability of the data collection instrument is its ability to produce internal consistency if administered the same way to the same respondents. The researcher adopted test retest method to compute the reliability of the instruments. The questionnaires were administered repeatedly to the same respondents, under this method.

Paired samples t-tests and paired sample correlations were calculated, indicating that factors influencing the implementation of strategic plans. The following table 3.5 shows reliability statistics of the factors influencing the implementation of strategic plans.

Table 3.5: Test-Retest Results

Factor	Mean ± SD	Pearson's Correlation	t-statistic
Allocation of resources			
Time 1	4.2 ± 2	0.89*	0.28
Time 2	4.2 ± 1		
Time 3	4.2 ± 3		
School heads' Project management skills			
Time 1	3.8 ± 5	0.91*	0.42
Time 2	3.8 ± 1		
Time 3	3.8 ± 2		
BoMs' Mobilisation of funding			
Time 1	4.6 ± 2	0.82*	0.37
Time 2	4.6 ± 4		

Time 3	4.6 ± 3		
Senior management involvement in strategy control			
Time 1	3.5 ± 1	0.96*	0.22
Time 2	3.5 ± 3		
Time 3	3.5 ± 3		

* Indicates a value that is significant at $p < 0.05$

Questions on individual study variables were tested for reliability and all variables had test-retest reliability coefficient > 0.8 , which was a good reliability.

3.6 Data Collection

The study obtained data from primary data by administering closed and open-ended questionnaires comprising the probable factor categories influencing implementation of strategic plans on school infrastructure projects. The questionnaires were dropped and picked after one week to give the respondents ample time to read through the questions and respond adequately.

Questionnaire method was deemed appropriate for this research since it would enhance data gathering on perceptions, behaviour, feelings, and attitudes of respondents (Orodho, 2008) towards the implementation of strategic plans on infrastructure projects in public secondary schools. All the questionnaires were administered in the same form to the study respondents. To ensure validity and reliability of research instruments, the researcher modified research tools employed previously by other researchers (Wairimu, 2014; Waiganjo, 2015; Jisuveyi, 2014) in the similar area of study.

3.7 Data Analysis

Once data gathering was completed, various tools were applied to capture relevant information and present it in a way that is comprehensible to other users. Editing was conducted to get rid of irrelevant and unwanted information. Data was validated and checked for consistency. Data with similar characteristics was coded and grouped together. The rule of data exclusiveness and exhaustiveness, recommended by Kothari (2004), was applied, implying that questionnaires with 'yes' responses were coded as number 1 while those with 'no' responses were coded as number 0. The coding enabled the researcher to generate the total number of responses for every question. It also helped in tabulating data by utilising numbers and figures.

Once coding is finalised, data was grouped according to their common attributes or characteristics. The information gathered was analysed by using descriptive statistics (percentages and frequencies) and inferential statistics (correlation analysis). Description of percentages and frequencies was applied in analysing data from observations made from school observation schedules with the assistance of statistical package for social sciences (SPSS) version 20. The analysed data were later used as a basis for comparison as well as conclusion of this study.

3.8 Ethical Consideration

The researcher provided the letter from the university that authorised him to conduct the study and NACOSTI authorisation. The researcher then sought the consent of the respondents before administering the questions and conducting observations. The purpose of the study was

explained. Confidentiality was maintained and no respondents was required to write the names of the questionnaires.

CHAPTER FOUR

DATA PRESENTATION, INTERPRETATION, AND DISCUSSION

4.1 Introduction

This chapter presents the analysis and interpretation of field data collected. It also discusses the findings and compares the outcomes with the empirical literature review to identify areas of converging and diverging viewpoints. The sub-sections are aligned as per the study objectives.

4.2 Response Rate

The response rate for the questionnaire was calculated and presented in table 4.1.

Table 4.1: Questionnaire Return Rate

Respondents	Questionnaires sent (%)		Questionnaire completed (%)	
School heads	84	22	84	22
BoMs	84	22	84	22
PTAs	84	22	80	21
Teachers	126	33	126	33
Quality Assurance officers	6	1	6	1
Total	384	100	380	99

The response rate according to this study was at 99 percent, which is deemed sufficient for data analysis as well as reporting. The high response rate was achieved because of high professionalism among the research assistants while administering the questionnaires. Mungenda and Mugenda (2003) states that a response rate of 50 percent is considered sufficient for analysis

and reporting, 60 percent response rate is considered good while the rate above 70 percent is considered very good.

4.3 Respondents' Bio-data

This section of the study analyses, presents, and interprets the bio-data of study participants, as per gender, role in the school, duration of teaching, number of teachers, and student population.

4.3.1 Gender of Respondents

Table 4.2: Gender of Respondents

Gender	Frequency	Percent
Male	260	68
Female	120	32
Total	380	100.0

Table 4.2 shows that most of the respondents were males at 68 percent (194). It implies that the majority participants in the implementation of strategic plans on infrastructure development in public secondary schools were represented by men.

4.3.2 Respondents' Role in School

The researcher analysed the role of study participants in schools, including their position as principals, deputy principals, and senior teachers among others.

Table 4.3: Role of Respondents in School

Role	Frequency	Percent
Principal	42	11
Deputy principal	42	11
Senior teacher	42	11
Other role	254	67
Total	380	100.0

Table 4.3 shows that most of the respondents interviewed during the study were at 67 percent (254) comprising of teachers involved in school infrastructure development projects, BOM, PTA, and quality assurance officers at the county ministry of education.

4.3.3 Duration of Teaching in the School

The researcher sought to identify the number of years the respondents have taught. The question was only meant and answered by school heads, their deputies, and teachers who have been involved in implementing strategic plans on infrastructure development projects in their schools. A total of 210, which included 84 principals and 126 teachers were interviewed. The findings were presented in the following table 4.4

Table 4.4: Duration of Teaching in the School

Duration of Teaching	Frequency	Percent
0 - ≤ 1	26	12
2 - ≤3	50	24
4- ≤5	74	35
5 >	60	29
Total	210	100

Table 4.4 shows that most teachers interviewed 35 percent (74) had taught in their schools for between 4 and 5 years. The findings demonstrate that the majority of the respondents have stayed in their respective schools long enough to experience the implementation of strategic plans on infrastructure development (building toilets, dormitories, constructing laboratories, classrooms, dining halls, and water-points among others).

4.3.4 Number of Teachers Working in School

The researcher sought to establish the number of teachers working in the respective schools. The response was limited to 210 school heads and teachers interviewed, hence, the categorization (government employees or BoG employees) was done as per the study respondents. The study findings were presented in the following table 4.5.

Table 4.5: Number of Teachers Working in Schools

Teachers working in the schools	Frequency	Percent
Government employees	208	99
BOG employees	2	1
Total	210	100.0

Table 4.5 indicates that most of the respondents 99 percent (208) interviewed were teachers employed by the government. The findings revealed that majority of teachers engaged in the implementation of strategic plans on infrastructural development projects in public secondary schools are government employees.

4.3.5 Student Population

The researcher obtained data on student population from school heads interviewed from the sample size 42 public secondary schools. The findings were presented in the following table 4.6.

Table 4.6: Student Population

Student Population	Frequency	Percent
< 200	2	4
200 – 399	8	19
400 – 599	9	21
600 – 799	12	29
800 - 999	7	17
1000 <	4	10
Total	42	100.0

Table 4.6 shows that most public secondary schools 29 percent (12) had student population of between 600-799. It implies that more toilets, dormitories, classrooms, dining halls, laboratories, recreation halls such as assembly halls among others are required in such schools to accommodate the high numbers of student population.

4.4 Factors Influencing the Implementation of Strategic Plans on Infrastructural Development of Public Secondary Schools

The dependent variable of infrastructural development of public secondary schools was measured in terms of the level of stakeholder satisfaction, quality of project output, and costs as well as time taken to complete the projects, which are parameters of a successful project.

4.4.1 Allocation of Resources and Implementation of Strategic Plans

The researcher sought to examine how allocation of resources influences implementation of strategic plans on infrastructure development in public secondary schools in Gem sub-county, Kenya. The findings were presented in the following table 4.7

Table 4.7: Allocation of Resources

1 = Strongly Disagree 2= Disagree 3= Neutral 4=Agree
5=Strongly Agree

Allocation of Resources	1	2	3	4	5	Standard Deviation
Does the government allocate adequate resources to build classrooms?	60%	32%	5%	3%	0%	0.14
Do costs to implement project on building laboratories influence the implementation of strategic plans on infrastructure development of public secondary schools?	0%	6%	0%	29%	65%	0.18
Do adequacy and timely disbursement of government funding influence the implementation of strategic plans on infrastructure development of public secondary schools?	0%	0%	0%	49%	51%	0.22
Does availability of donor funding of toilets influence the implementation of strategic plans	0%	0%	1%	50%	49%	0.19

on infrastructure development of public secondary schools?

Does adequacy of CDF funding the construction of dining halls influence the implementation of strategic plans on infrastructure development of public secondary schools? 0% 0% 0% 68% 32% 0.32

Does availability of county government funding to build dormitories influence the implementation of strategic plans on infrastructure development of public secondary schools? 0% 0% 0% 63% 37% 0.26

Does availability of a funding drive by school alumni construct libraries influence the implementation of strategic plans on infrastructure development of public secondary schools? 0% 0% 1% 73% 26% 0.16

Do you agree that the existence of PTA approved funds influence the implementation of strategic plans on infrastructure development of public secondary schools? 0% 1% 2% 59% 38% 0.31

Table 4.7 shows that majority of the respondents disagreed to the statement that the government allocates adequate resources to build classrooms as shown by a low standard deviation of 0.14 while a small portion of them (3 percent) had a different opinion. Most respondents (65 percent) strongly agreed that costs to implement project on building laboratories influence the

implementation of strategic plans on infrastructure development of public secondary schools as demonstrated by a low standard deviation of 0.18. It implies that proper costing and cost management of financial resources are imperative for the successful implementation of strategic plans on infrastructural projects in public secondary schools.

More than 50 percent strongly agreed that adequacy and timely disbursement of government funding influence the implementation of strategic plans on infrastructure development of public secondary schools as demonstrated by a low standard deviation of 0.22. Hence, the delay of the release of financial resources and inadequacy tend to derail the success of the implementation of strategic plans on infrastructural projects.

Fifty percent of the respondents agreed that availability of donor funding of toilets influence the implementation of strategic plans on infrastructure development of public secondary schools as shown by a low standard deviation of 0.19. On the adequacy of CDF funding the construction of dining halls influence the implementation of strategic plans on infrastructure development of public secondary schools, most respondents (68 percent) agreed as shown by a correspondingly low standard deviation of 0.32.

The studying findings also established that majority of the respondents (63 percent) agreed that availability of county government funding to build dormitories influence the implementation of strategic plans on infrastructure development of public secondary schools as shown by a low standard deviation of 0.26. Most respondents (73 percent) agreed that the availability of a funding drive by school alumni construct libraries influence the implementation of strategic plans on infrastructure development of public secondary schools as shown by a low standard deviation of 0.16. On the existence of PTA approved funds influence the implementation of

strategic plans on infrastructure development of public secondary schools, the researcher identified that most respondents (59 percent) agreed as shown by a correspondingly low standard deviation of 0.31. The researcher concluded that financial resources, human resources, and time are crucial elements of resource allocation, which influence the implementation of strategic plans on infrastructure development of public secondary schools.

The researcher also used a Pearson’s correlation to determine the magnitude between allocation of resources and the implementation of strategic plans on infrastructure development of public secondary schools. The study findings were then presented in the following table 4.8.

Table 4.8: Correlation between Allocation of Resource and Implementation of Strategic Plans on Infrastructure Development

Variables	Descriptor	Allocation of resources	Implementation of strategic plans
	Correlation	1.000	.852**
	Coefficient		
	Allocation of resources		
Pearson	Sig. (2-tailed)	.	.010
correlation	N	24	24
coefficient	Correlation	.852**	1.000
	Implementation of Coefficient		
	strategic plans	Sig. (2-tailed)	.010
	N	24	24

CL = confidence level at 95%

Refer to table 4.8 above, the study findings established strong positive correlation between allocation of human resources and financial and the implementation of strategic plans on infrastructure development of public secondary schools, Pearson's correlation coefficient= 0.852, $p < 0.010$, C.L=95%. It implies that allocating more financial resources, human resources, and time would enhance the implementation of strategic plans on infrastructure development of public secondary schools. The study findings concur with those of Kitonga (2012) who found that money is crucial resource in the implementation of strategic plans. This is also in confirms the RBV theory (Hitt *et al.*, 2005) that resources such as human, physical as well as organisational capital (talented and skilled managers, finances, patents, skills of individual workers, and capital equipment) are crucial for the implementation of strategic plans.

4.4.2 School heads' Project Management Skills

The section sought to identify how school heads project management skills of influence implementation of strategic plans on infrastructure development in public secondary schools.

The findings were presented in the following table 4.9.

Table 4.9: School heads' Project Management Skills

1 = Strongly Disagree 2= Disagree 3= Neutral 4=Agree
 5=Strongly Agree

Respondents' Opinion

	1	2	3	4	5	Standard Deviation
Do you agree that the ability of school heads to do project planning and budgeting influence the implementation of strategic plans on infrastructure development of public secondary schools?	0%	0%	0%	32%	68%	0.12
Do you agree that the ability of school heads to do project control influence the implementation of strategic plans on infrastructure development of public secondary schools?	0%	0%	0%	69%	31%	0.17
Does the ability of school heads to conduct monitoring and evaluation influence the implementation of strategic plans on infrastructure development of	0%	0%	1%	58%	42%	0.23

public secondary schools?

Do you agree that the ability of school heads to effectively apply implementation skills influence

the implementation of strategic plans on infrastructure development of public secondary schools? 0% 0% 0% 29% 71% 0.13

Does the ability of school heads to offer leadership during the implementation of strategic plans influence the implementation of

strategic plans on infrastructure development of public secondary schools? 0% 0% 0% 53% 37% 0.23

strategic plans on infrastructure development of public secondary schools?

Table 4.9 shows that more than 60% respondents interviewed strongly agreed that the ability of school heads to do project planning and budgeting influence the implementation of strategic plans on infrastructure development of public secondary schools as shown by a low standard deviation of 0.12. The study also established that majority of the respondents (69 percent) agreed that the ability of school heads to do project control influence the implementation of strategic plans on infrastructure development of public secondary schools as demonstrated by a low standard deviation of 0.17.

The study ascertained that most respondents (58 percent) agreed that the ability of school heads to conduct monitoring and evaluation influence the implementation of strategic plans on infrastructure development of public secondary schools as presented by correspondingly low standard deviation of 0.23. On the ability of school heads to effectively apply implementation skills influence the implementation of strategic plans on infrastructure development of public secondary schools, most of the study respondents (71 percent) strongly agreed as shown by a low standard deviation of 0.13. The study also identified that most respondents (53 percent) agreed that ability of school heads to offer leadership during the implementation of strategic plans influence the implementation of strategic plans on infrastructure development of public secondary schools as shown by a low standard deviation of 0.23. Hence, it can be concluded from the findings that project planning and budgeting, project control, implementation skills, as well as monitoring and evaluation are key project management skills, which drive successful implementation of strategic plans on infrastructure development of public secondary schools.

The researcher also incorporated a Pearson's correlation to identify the relationship between school heads project management skills and implementation of strategic plans on infrastructure development in public secondary schools. The study findings were then presented in the following table 4.10.

Table 4.10: Correlation between Schools heads Project Management Skills and Implementation of Strategic Plans on Infrastructure Development

Variables	Descriptor		School heads' project management skills	Implementation of strategic plans
		Correlation	1.000	.791**
Pearson correlation coefficient	School heads' project management skills	Coefficient		
		Sig. (2-tailed)	.	.000
		N	24	24
	Implementation of strategic plans	Correlation	.791**	1.000
		of Coefficient		
		Sig. (2-tailed)	.000	.
		N	24	24

CL = confidence level at 95%

Table 4.10 shows a strong positive correlation between school heads' project management skills and the implementation of strategic plans on infrastructure development of public secondary schools, Pearson's correlation coefficient= 0.791, $p < 0.000$, C.L=95%. It implies that allocating more project planning and budgeting, project control, implementation skills, as well as monitoring and evaluation would enhance the implementation of strategic plans on infrastructure development of public secondary schools. The study findings confirm the study by Mutuku and

Mutuku (2009) that school heads require training in key management areas of general project management, budget preparation for successful implementation of strategic plans.

4.4.3 BOM’s Mobilisation of Funding

The study sought to examine how Board of Managements’ (BoM) mobilisation of funding influences implementation of strategic plan on infrastructure development. The findings of the study were presented in the following table 4.11.

Table 4.11: BOM’s Mobilisation of Funding

1 = Strongly Disagree 2= Disagree 3= Neutral 4=Agree 5=Strongly Agree

BOM’s Mobilisation of Funding	1	2	3	4	5	Standard Deviation
Do you agree that managerial capacity of the board of management (BOM) influence the implementation of strategic plans on infrastructure development of public secondary schools?	0%	0%	1%	42%	58%	0.22

Does BOMs' participation in mobilising <i>harambees</i> influence the implementation of strategic plans on infrastructure development of public secondary schools?	0%	0%	0%	20%	80%	0.12
Do you agree that the frequency of BOMs to mobilise well-wishers influence the implementation of strategic plans on infrastructure development of public secondary schools?	0%	0%	0%	77%	23%	0.19
Does the ability of BOMs to mobilise for donations influence the implementation of strategic plans on infrastructure development of public secondary schools?	0%	0%	0%	56%	44%	0.24

Table 4.11 shows that more than 50% of the respondents agreed that managerial capacity of the board of management (BOM) influence the implementation of strategic plans on infrastructure development of public secondary schools as demonstrated by a low standard deviation of 0.22. Most of the respondents (80 percent) strongly agreed that BOMs' participation in mobilising *harambees* influence the implementation of strategic plans on infrastructure development of public secondary schools as shown by a low standard deviation of 0.12.

On the frequency of BOMs to mobilise well-wishers influence the implementation of strategic plans on infrastructure development of public secondary schools, majority of the respondents (77 percent) agreed as depicted by a low standard deviation of 0.19. Most respondents (56 percent) agreed that the ability of BOMs to mobilise for donations influence the implementation of strategic plans on infrastructure development of public secondary schools as shown by a low standard deviation of 0.24. It can be concluded from these findings that BOM's ability to mobilise *harambees*, donations, and well-wishers are crucial for the success of the implementation of strategic plans on infrastructural development of public secondary schools.

The researcher also incorporated a Pearson's correlation to identify the relationship between Board of Managements' (BoM) mobilisation of funding and implementation of strategic plans on infrastructure development in public secondary schools. The study findings were then presented in the following table 4.12.

Table 4.12: Correlation between BOM’s Mobilisation of Funding and Implementation of Strategic Plans on Infrastructure Development

Variables	Descriptor		BOM’s mobilisation of funding	Implementation of strategic plans
		Correlation	1.000	.698**
	BOM’s mobilisation of funding	Coefficient		
Pearson correlation coefficient		Sig. (2-tailed)	.	.010
		N	24	24
		Correlation	.698**	1.000
	Implementation of strategic plans	of Coefficient		
		Sig. (2-tailed)	.010	.
		N	24	24

CL = confidence level at 95%

Table 4.12 shows a strong positive correlation between Board of Managements’ (BoM) mobilisation of funding and implementation of strategic plans on infrastructure development in public secondary schools, Pearson’s correlation coefficient= 0.698, $p < 0.010$, C.L=95%. It implies that strengthening BOM’s ability to mobilise *harambees*, donations, and well-wishers would enhance the implementation of strategic plans on infrastructure development of public secondary schools. The study findings confirm the study by Wangatho (2007) that adequate commitment of BOM’s mobilisation is crucial for the implementation of strategic plans.

4.4.4 Senior Management’s Involvement in Strategic Control

The study sought to establish how senior management involvement in strategic control influences implementation of strategic plan on infrastructure development influences implementation of strategic plan on infrastructure development. The findings of the study were presented in the following table 4.13.

Table 4.13: Senior Management’s Involvement in Strategic Control

1 = Strongly Disagree 2= Disagree 3= Neutral 4=Agree
 5=Strongly Agree

Senior Management’s involvement in strategic control	1	2	3	4	5	Standard Deviation
Do you agree that articulation of strategic outcome influence the implementation of strategic plans on infrastructure development of public secondary schools?	0%	0%	0%	57%	43%	0.29
Does adequate description of strategic activities influence the implementation of strategic plans on infrastructure development of public secondary schools?	0%	0%	1%	50%	49%	0.32

Do you agree that definition of progress tracking method influence the implementation of strategic plans on infrastructure development of public secondary schools?	0%	1%	1%	36%	62%	0.26
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Table 4.13 shows that more than fifty percent of the respondents agreed that articulation of strategic outcome influence the implementation of strategic plans on infrastructure development of public secondary schools as demonstrated by a low standard deviation of 0.29. On the adequate description of strategic activities influence the implementation of strategic plans on infrastructure development of public secondary schools, most respondents (50 percent) agreed as presented by a corresponding low standard deviation of 0.32. Majority of the respondents (62 percent) strongly agreed that definition of progress tracking method influence the implementation of strategic plans on infrastructure development of public secondary schools as shown by a low standard deviation of 0.26. The researcher therefore concluded from these findings that articulation of strategic outcomes, adequate description of strategic activities, and definition of progress tracking method are key areas that senior management needs to involve in the strategic control to enhance the implementation of strategic plans on infrastructural development of public secondary schools.

The researcher also incorporated a Pearson’s correlation to identify the relationship between senior management involvement in strategic control and implementation of strategic plans on infrastructure development in public secondary schools. The study findings were then presented in the following table 4.14.

Table 4.14: Correlation between Senior Management involvement in Strategic Control and Implementation of Strategic Plans on Infrastructure Development

Variables	Descriptor		Senior management involvement in strategic control	Implementation of strategic plans
Pearson correlation coefficient	Senior management involvement in strategic control	Correlation Coefficient	1.000	.772**
		Sig. (2-tailed)	.	.010
	Implementation of strategic plans	N	24	24
		Correlation Coefficient	.772**	1.000
		Sig. (2-tailed)	.010	.
		N	24	24

CL = confidence level at 95%

Table 4.14 shows a strong positive correlation between senior management involvement in strategic control and implementation of strategic plans on infrastructure development in public secondary schools, Pearson’s correlation coefficient= 0.772, $p < 0.010$, C.L=95%. It implies that

strengthening the senior management involvement in articulation of strategic outcomes, adequate description of strategic activities, and definition of progress tracking method would enhance the implementation of strategic plans on infrastructure development of public secondary schools. The study findings confirm the study by Uzel (2015) that strategy control positively influence the implementation of strategic plan, specifically in four key areas of articulation of the strategic outcomes under investigation, describing strategic activities to be performed to achieve the intended outcomes, defining a technique to be used in tracking the progress achieved against the two elements.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides discussions of summary of finding based on the specific objectives of the study. It draws conclusion from the findings and comes up with several recommendations. The chapter also focuses on contribution to the body of knowledge and suggest areas for further research.

5.2 Summary of the Study

The overall objective of this study was to establish factors influencing implementation of strategic plan on infrastructure development in public secondary schools in Gem sub-county, Kenya. Specifically it sought to examine how allocation of resources influence implementation of strategic plans on infrastructure development in public secondary schools in Gem sub-county, Kenya; to establish how school heads project management skills of influence implementation of strategic plans on infrastructure development in public secondary schools; to examine how Board of Managements' (BoM) mobilisation of funding influence implementation of strategic plan on infrastructure development; and to establish how senior management involvement in strategic control influences implementation of strategic plan on infrastructure development.

The study involved a sample size of 384 respondents. A purposive random sampling technique was used to select two school administrators (1 principal and his/her deputy). The purposive random sampling was also be used to select 2 board of management members who had been involved in mobilising funds for infrastructural development of their schools. A simple random sampling technique was used to choose 2 PTA members who are in the school infrastructure

development committee. A simple random sampling technique was also be used in selecting 3 teachers who have been trained in project management skills. A purposive sampling technique was used to select 6 quality assurance officers from the ministry of education who have assessed infrastructure development projects in public secondary schools in Gem Sub-county. The samples was from each of the 42 public secondary schools to be sampled.

A sample size of 384 respondents was drawn using Fisher *et al* (1991) formula ($n=z^2pq/d^2$). The researcher used questionnaires to collect data and observation schedules to check the status of infrastructural development projects in various public secondary schools. Content validity was achieved by engaging an expert in this area, the Ministry of Education quality assurance officer at Gem Sub-County. The researcher adapted test retest method to compute the reliability of the instruments, after administering the questionnaires several times to the same respondents.

The response rate for the data stood at 99 percent (380) respondents successfully completed the interviews. Descriptive statistics and correlation analysis were used in analysing the data. Qualitative responses also help the researcher to make recommendations for areas that needed to be strengthened to enhance the implementation of strategic plans on infrastructure development projects in public secondary schools.

5.2.1 Allocation of Resources and Implementation of Strategic Plans

The study findings showed strong positive correlation between allocation of resources and the implementation of strategic plans on infrastructure development of public secondary schools, Pearson's correlation coefficient= 0.852, $p<0.010$, C.L=95%. It implies that allocating more financial resources, human resources, and time would enhance the implementation of strategic

plans on infrastructure development of public secondary schools. The study findings confirm the study by Kitonga (2012) that money is crucial resource in the implementation of strategic plans. This is also in conformity with the RBV theory (Hitt *et al.*, 2005) that resources such as human, physical as well as organisational capital (talented and skilled managers, finances, patents, skills of individual workers, and capital equipment) are crucial for the implementation of strategic plans.

5.2.2 School heads Project Management Skills and Implementation of Strategic Plans

The study findings of this study revealed strong positive correlation between school heads' project management skills and the implementation of strategic plans on infrastructure development of public secondary schools, Pearson's correlation coefficient= 0.791, $p < 0.000$, C.L=95%. It implies that allocating more project planning and budgeting, project control, implementation skills, as well as monitoring and evaluation would enhance the implementation of strategic plans on infrastructure development of public secondary schools. The study findings confirm the study by Mutuku and Mutuku (2009) that school heads require training in key management areas of general project management, budget preparation for successful implementation of strategic plans.

5.2.3 BOM Mobilisation of Funding and Implementation of Strategic Plans

The study findings showed strong positive correlation between Board of Managements' (BoM) mobilisation of funding and implementation of strategic plans on infrastructure development in public secondary schools, Pearson's correlation coefficient= 0.698, $p < 0.010$, C.L=95%. It

implies that strengthening BOM's ability to mobilise *harambees*, donations, and well-wishers would enhance the implementation of strategic plans on infrastructure development of public secondary schools. The study findings confirm the study by Wangatho (2007) that adequate commitment of BOM's mobilisation is crucial for the implementation of strategic plans.

5.2.4 Senior Management Involvement in Strategic Control and Implementation of Strategic Plans

The study findings showed strong positive correlation between senior management involvement in strategic control and implementation of strategic plans on infrastructure development in public secondary schools, Pearson's correlation coefficient= 0.772, $p < 0.010$, C.L=95%. It implies that strengthening the senior management involvement in articulation of strategic outcomes, adequate description of strategic activities, and definition of progress tracking method would enhance the implementation of strategic plans on infrastructure development of public secondary schools. The study findings confirm the study by Uzel (2015) that strategy control positively influence the implementation of strategic plan, specifically in four key areas of articulation of the strategic outcomes under investigation, describing strategic activities to be performed to achieve the intended outcomes, defining a technique to be used in tracking the progress achieved against the two elements.

5.3 Conclusion

The aim of this study was to establish factors influencing implementation of strategic plan on infrastructure development in public secondary schools in Gem sub-county, Kenya. On the first

objective, it is concluded that allocation of resources positively correlates the implementation of strategic plans on infrastructure development of public secondary schools. The variables of financial resources, human resources, and time were found crucial in enhancing the implementation of strategic plans on infrastructure development of public secondary schools.

On the second objective, it is concluded that school heads' project management skills positively correlates the implementation of strategic plans on infrastructure development of public secondary schools. The variables of project planning and budgeting, project control, implementation skills, as well as monitoring and evaluation were found crucial in enhancing the implementation of strategic plans on infrastructure development of public secondary schools.

On the third objective, it is concluded that Board of Managements' (BoM) mobilisation of funding positively correlates the implementation of strategic plans on infrastructure development in public secondary schools. The variables of BOM's ability to mobilise *harambees*, donations, and well-wishers were found crucial in enhancing the implementation of strategic plans on infrastructure development of public secondary schools.

On the fourth objective, the study concluded that senior management involvement in strategic control has a strong positive correlation with implementation of strategic plans on infrastructure development in public secondary schools. The variables of senior management involvement in articulation of strategic outcomes, adequate description of strategic activities, and definition of progress tracking method were found crucial in enhancing the implementation of strategic plans on infrastructure development of public secondary schools.

5.4 Recommendations

The study recommends on the first objective that more financial resources, human resources, and time should be allocated to the implementation of strategic plans on infrastructure development of public secondary schools. It also recommends on the second objective that more project planning and budgeting, project control, implementation skills, as well as monitoring and evaluation should be directed towards the implementation of strategic plans on infrastructure development of public secondary schools. On the third objective, the study recommends that BOM's ability to mobilise *harambees*, donations, and well-wishers should be strengthened towards enhancing the implementation of strategic plans on infrastructure development of public secondary schools. It further recommends on the fourth objective that senior management involvement in articulation of strategic outcomes, adequate description of strategic activities, and definition of progress tracking method should be strengthened to enhance the implementation of strategic plans on infrastructure development of public secondary schools.

5.5 Areas for Further Research

The study suggests that further research on socio-cultural challenges influencing the implementation of strategic plans on infrastructure development of public secondary schools. It also suggests that further study to be conducted on influence of sponsors on the implementation of strategic plans on infrastructure development of public secondary schools.

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APPENDIX I: INTRODUCTORY LETTER

Dear Participant,

My name is Otieno Stephen Onyango, a Master of Education (Planning) at the University of Nairobi. You are being invited to participate in a research project entitled: *Factors Influencing the Implementation of Strategic Plans on Infrastructure Development of Public Secondary Schools in Gem Sub-County, Siaya County*. Your participation is voluntary and responses gathered from the questions will not be used for any other purpose beyond the scope of this study. Your responses to the study questions is highly appreciated. Feel free to ask any question for clarification.

Otieno Stephen Onyango

Contact Information: +254 717804672

APPENDIX II: QUESTIONNAIRE TO THE RESPONDENTS

A. DEMOGRAPHIC INFORMATION

1. What is your gender?

Male [] Female []

2. What is your role in this school?

Principal [] Deputy Principal [] Senior teacher []

Other-----

3. For how long have you been teaching in this school?

0-1 year [] 2-3 years [] 4-5 years [] More than 5 years []

4. How many teachers are currently working in this school?

Government employees [] BOG employees []

5. What is the current student population in this school?

B. FACTORS INFLUENCING THE IMPLEMENTATION OF STRATEGIC PLANS ON INFRASTRUCTURE DEVELOPMENT IN PUBLIC SECONDARY SCHOOLS

Allocation of Resources

6. To what extent do you agree that the following aspects of resource allocation influence the implementation of strategic plans on infrastructure development of public secondary schools?

KEY: Use a scale of 1 to 5 where;

1 = Strongly Disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

		1	2	3	4	5
i)	Does the government allocate adequate resources to build classrooms?					
ii)	Do costs to implement project on building laboratories influence the implementation of strategic plans on infrastructure development of public secondary schools?					
iii)	Do adequacy and timely disbursement of government funding influence the implementation of strategic plans on infrastructure development of public secondary schools?					
iv)	Does availability of donor funding of toilets influence the implementation of strategic plans on infrastructure development of public secondary schools?					
v)	Does adequacy of CDF funding the construction of dining halls influence the implementation of strategic plans on infrastructure development of public secondary schools?					
vi)	Does availability of county government funding to build dormitories influence the implementation of strategic plans on infrastructure development of public secondary schools?					
vi)	Does availability of a funding drive by school alumni construct libraries influence the implementation of strategic plans on infrastructure development of public secondary schools?					
vii).	Do you agree that the existence of PTA approved funds influence the implementation of strategic plans on infrastructure development of public secondary schools?					

7. Briefly, comment on ways resource allocation can enhance the implementation of strategic plans on infrastructure development of public secondary schools

School heads Project Management Skills

8. To what extent do you agree that the following aspects of project management skills influence the implementation of strategic plans on infrastructure development of public secondary schools?

KEY: Use a scale of 1 to 5 where;

1 = Strongly Disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

		1	2	3	4	5
i)	Do you agree that the ability of school heads to do project planning and budgeting influence the implementation of strategic plans on infrastructure development of public secondary schools?					
ii)	Do you agree that the ability of school heads to do project control influence the implementation of strategic plans on infrastructure development of public secondary schools?					
iii)	Does the ability of school heads to conduct monitoring and evaluation influence the implementation of strategic plans on infrastructure development of public secondary schools?					
iv)	Do you agree that the ability of school heads to effectively apply implementation skills influence the implementation of strategic plans on infrastructure development of public secondary schools?					
v)	Does the ability of school heads to offer leadership during the implementation of strategic plans influence the implementation of strategic plans on infrastructure development of public secondary schools?					

Board of Management's (BoM) Mobilisation of Funding

9. To what extent do you agree that the following aspects of BOM mobilisation for funding influence the implementation of strategic plans on infrastructure development of public secondary schools?

KEY: Use a scale of 1 to 5 where;

1 = Strongly Disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

		1	2	3	4	5
i)	Do you agree that managerial capacity of the board of management (BOM) influence the implementation of strategic plans on infrastructure development of public secondary schools?					
ii)	Does BOMs' participation in mobilising <i>harambees</i> influence the implementation of strategic plans on infrastructure development of public secondary schools?					
iii)	Do you agree that the frequency of BOMs to mobilise well-wishers influence the implementation of strategic plans on infrastructure development of public secondary schools?					
iv)	Does the ability of BOMs to mobilise for donations influence the implementation of strategic plans on infrastructure development of public secondary schools?					

10. Suggest ways in which BOM's mobilisation for funding can help in the realisation of strategic plan implementation on infrastructure development of public secondary school

Senior management involvement on strategy control

11. To what extent do you agree that the following aspects of strategy control influence the implementation of strategic plans on infrastructure development of public secondary schools?

KEY: Use a scale of 1 to 5 where;

1 = Strongly Disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

		1	2	3	4	5
i)	Do you agree that articulation of strategic outcome influence the implementation of strategic plans on infrastructure development of public secondary schools?					
ii)	Does adequate description of strategic activities influence the implementation of strategic plans on infrastructure development of public secondary schools?					
iii)	Do you agree that definition of progress tracking method influence the implementation of strategic plans on infrastructure development of public secondary schools?					

12. Briefly state ways in which strategy control in the implementation of strategic plan on infrastructure development of public secondary schools can be improved-----

APPENDIX III: RESEARCH AUTHORIZATION AND PERMIT

THIS IS TO CERTIFY THAT:
MR. STEPHEN ONYANGO OTIENO
of UNIVERSITY OF NAIROBI, 9-40608
SIAYA, has been permitted to conduct
research in Siaya County

Permit No : NACOSTI/P/18/81553/25321
Date Of Issue : 11th September, 2018
Fee Received :Ksh 1000

on the topic: **FACTORS INFLUENCING
IMPLEMENTATION OF STRATEGIC PLANS
ON INFRASTRUCTURE DEVELOPMENT IN
PUBLIC SECONDARY SCHOOLS IN GEM
SUB-COUNTY, KENYA**

for the period ending:
11th September, 2019




.....
**Applicant's
Signature**


.....
**Director General
National Commission for Science,
Technology & Innovation**

CONDITIONS

1. The License is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
6. This Licence does not give authority to transfer research materials.
7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
8. The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.



REPUBLIC OF KENYA

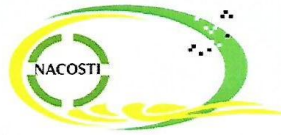


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Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/81553/25321**

Date: **11th September, 2018**

Stephen Onyango Otieno
University of Nairobi
P.O Box 30197-00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Factors influencing implementation of strategic plans on infrastructure development in public secondary schools in Gem Sub County, Kenya”* I am pleased to inform you that you have been authorized to undertake research in **Siaya County** for the period ending **11th September, 2019**.

You are advised to report to **the County Commissioner and the County Director of Education, Siaya County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

**DR. STEPHEN K. KIBIRU, PhD.
FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner
Siaya County.

The County Director of Education
Siaya County.