



Influence of School Information Flow Strategy on Internal Efficiency in Public Secondary School in Nakuru County, Kenya

¹*Korir K. Eliud, ²Edabu Paul and ³Mungai C. Peter

¹School of Education, Mount Kenya University, P.O Box 342-01000 Thika, Kenya

²Faculty of Education, Muni University, P.O Box 725, Arua, Uganda

³School of Education, Egerton University, P.O Box 536 - 20115, Egerton-Njoro, Kenya

***Corresponding author's email; address: rotichkorir@gmail.com**

Abstract

The objective of this study was to examine the influence of information flow on internal efficiency in public secondary schools in Nakuru county. The study was guided by System theory by Von Bertalanffy. Mixed methodology and concurrent triangulation design were used in this study. The target population of the study was 311 public secondary school teachers (3168), principals (311) and sub-county education officers (11) in Nakuru County. The sample frame included teachers (205), principals (30), and sub-county education officers (5), thus respondents were 240. The study applied stratified random sampling to sample sub-counties, schools, teachers, head teachers and sub-county education officers. Questionnaires were used to gather quantitative facts from staff, whereas interview schedule was used to gather qualitative data from principals and sub-county education officers and finally document analysis was employed to collect quantitative data. The reliability was determined by calculating Pearson's Correlation Coefficient, which yielded a satisfactory correlation coefficient of 0.76. Data was analyzed descriptively and inferentially using SPSS (version 23). From the findings, channel of communication commonly used in public secondary schools in Nakuru County has not yet improved both strategic plan implementation and internal efficiency, even though there was positive relationship between information flow and internal efficiency. For school improvement on the internal efficiencies in terms of academic performance and graduation rate, this study recommends that the Information flow in the process of implementing strategic plan in order to improve school internal efficiency need to be open (top-down, down-up and horizontal information flow) to allow input of various skills form all stakeholder so that everyone own the strategic plan and implement it fully.

Keywords: Information Flow, Strategic Planning, and Internal Efficiency

INTRODUCTION

Strategic planning is explained as competitive ways and business methods that administrators employ to expand business, attract clients, compete effectively, run operations and realize targeted stages of performance (Thomson et al., 2007). Moreover, strategic planning may be explained as highest managing activity that has role of forming decisions with the respect of the mission of the organization, its philosophy, vision, aims, strategies and practical policies (Sababu, 2007). According to this study, strategic planning is approach which school management use to expand (facilities, human resources, infrastructure instructional materials among others), attract students (quality students), compete successfully (quality grades better completion and transitional rate),

conduct operations (teaching and learning) and realize targeted level of performance (Centre of excellent). In addition, strategic planning is an important and long-term process, futuristic in nature and action-oriented because it transforms strategic thought into strategic actions. Strategic plan express where organization is heading over the next year or more (Olsen & Olsen, 2009). Provision of quality education involves monitoring, managing efficiency, evaluation and appraisal of the process of conversion such as teaching and learning in order to churn out worth products (learners) that are of standard and expectation the society require.

Internal efficiency in education setup is defined as the correlation between inputs and yield of the education system; such as the rate of input to output. Internal efficiency can also be seen as internal processes and activities in education system and further its capabilities to perform its expected functions, incorporation and retention of resources and the transition of the students from their grade to the next grade without failure; for example, graduation of students from secondary schools to tertiary institutions. Further, the areas that require efficiency in school are: the efficiency of the teacher and the level of performance; the efficiency of the curriculum methods and teaching methods; the efficiency of the school environment; and the efficiency of school leadership (Homoud, 2015).

In any organization, communication as well as effective information flow is vital tenets in the institutions' running process. If there is no flow of information, then material and financial flow do not exist. Theories of classical economics say that there are 4 factors involved in production. These are: raw material, labor, land and capital. Nevertheless, as Bozarth and Hanfield (2005) said, it could be vital to embrace information flow as the 5th aspect of production. This shows that flow of information is additional aspect of production; therefore, this investigation found out that there is positive association between information flow and internal efficiency in learning institutions, even though it relies on the form of communication that exists.

The function of communication in the strategic plan implementation is to explain duties and responsibilities to be executed by individuals in an organization. Study by Peng and Litteljoh (cited by Kiruri, 2015), established that effective communication is important in strategy implementation, because it helps in learning, training and information dissemination in the course of implementation of the strategy. Transparency between stakeholders, excellent flow of information and clearly described performance aspects, improves trust during strategy implementation process (Kumar et al., cited by Kiruri, 2015). Recurrent vertical communication improves consensus on implementation and the organization performance. By and large, communication of the strategy is communication of a change.

The role of communicating the strategy is to bring into line the scope and the degree of change and also the strategy implementation approaches with its principles and values make a rough draft in the interrelated policy document (Jones, 2008). According to Hunter (2007), in spite of the organization's policy and strategy perfectionism, and existence of its support from stakeholders, when methods of implementing strategy or policy of an organization does not exist or deficient in terms of capacity, or even both, subsequently it will not add up (Hunter, 2007). On the other hand, organizations that publicize its strategy exceedingly well, therefore convey what they intend to realize and also how they anticipated achieving it. Such organizations motivate its staff and further eliminate the barriers that have hindered effectiveness of strategy previously; barriers to the effectiveness of the strategy can be entrenched within organizational culture.

Information can be conveyed in different ways such as; verbal and non-verbal communication. Verbal communication is taking into account spoken and written forms. In contrast, nonverbal communication goes beyond written or spoken words (Lechener & Floyd, 2012). Organization that allows its staff to have right of entry to administration through open and accommodating climate of communication have tendency of performing better than organizations with restrictive environment (Li, Guohui & Eppler, 2011).

According to the study by Mutisya (2016) on the influence of communication on strategy implementation among pharmaceutical companies in Nairobi, Kenya, the study established that the communication media which have an effect on the implementation of strategy to a great extent are emails, message services, stakeholders meeting, internal memos periodic reports and oral presentations. The study also established that good communication in organization will leads to organization growth through effective process that lead to increased profitability and production (internal efficiency). In addition, he further established that one unit increase in information flow result in 1.563 units increase in strategy implementation, and it is correct to say that strategy implementation will influence positive information flow and production (internal efficiency). On the other hand, this study was done in public secondary schools. Therefore, the study anticipated to determine the effect of information flow on internal efficiency in the process of strategic plan implementation.

The Kenyan government in 2013 through Ministry of education mandated learning institutions to formulate and implement strategic plans that are internal as measures of improving result-oriented managing and competence in the school operations. Strategic plan for the Ministry of education was established in the year 2008 and it was to be used as performance monitoring tool. Due to these inefficiencies in the implementation of the strategic plan, public institutions may fail to fulfill the requirement by the government. Ministry of education (2005), developed Kenya Educational Sector for Strategic Planning (KESSP); KESSP had to offer Education and training to every stakeholder by ensuring the implementation of strategic plan in important areas in education that would promote efficiency and quality.

Education is perceived as the main path for individual to achieve better, valuable lives and as well as the basis for the development of economy of a nation. Therefore, the citizens and the government have spent heavily to improve the right of entry and educational quality, in order to achieve the benefits of education and in addition realize millennium development goals and vision 2030. The mandate for formal education is prominent in Kenya in relationship to resources put aside for it and also the many people involved. Kenya has improved the yearly financial contribution for free day secondary education from Sh. 10265 to sh. 12870 and latest figures being sh. 22240 (2017) for each learner. The number of learners that transit from primary education to secondary education is comparatively not encouraging. Kenyan population who are living below poverty line is approximated to be 58% according to Ministry of Education (2007). This means that majority of Kenyans cannot afford to meet education costs. In 2017 Kenya Certificate of Secondary Education examination, the number of candidates with minimum university entry of Mean Grade of C+ and above is 70,073 representing 11.38%. On the other hand, in 2016 Kenya Certificate of Secondary Education (KCSE) examination, candidates who attained minimum university entry were 88,929 representing 15.41% (Ouma, 2017). This shows that there was an increase in internal inefficiencies in secondary school education in Kenya, even after introduction of strategic planning concept.

Ministry of Education (2010) report established the transition rate of 55% from primary to secondary schools and in addition, only 230,000 (thirty-five per cent) of the learners sat

for national examination (KCSE) after 4 years in 2008 out of 655,000 of students who sat for KCPE the year 2004 (Ministry of Education, 2010). The statistics apparently shows that transition rate from primary to post primary is a predicament in education system in Kenya. According to Kurgat (as cited by Katamei & Omwono, 2015), reason for poor performance in schools in Kenya is contributed by; insufficient instructional materials, understaffing, insufficient observation by the principals, low motivation of teachers, high teachers turnover rate, inadequate prior preparation, large workload, lateness of students, absenteeism of both students and teachers and failure of parents to support schools. Therefore, introduction of strategic plan in the school was aimed at enhancing internal efficiency in education sector; in the current research, the researcher anticipated to analyze the role of the parents in improvement of internal efficiency.

In Nakuru County, secondary schools are in line with the requirements from the government to have strategic plans. The enrolment of students in the county has increased over the last 5 years from 14,732 in 2010 to 19,292 in 2014 in secondary schools. The performance of KCSE for the last six years illustrates marginal improvement. KCSE mean has moved from D+ in 2008 to C- in 2009 and stagnated for last four years (MOE, 2014). This grade is below average. Given the fact that student's performance in KCSE determines how one transits to the institutions of higher learning. According to the Ministry of Education there has been decline in academic performance in Nakuru County over four years. Nakuru County had the mean score of 3.5 in 2017 KCSE compared to mean score of 6.8 in KCSE in the year 2015 (County Education Office). In addition, the County governor was concerned with the 11,314 candidates from Nakuru County who scored Es in Mathematics in 2017 KCSE. This implied that public secondary schools' performance in Nakuru was poor compared to resources set for education. good information flow will facilitate improved internal efficiency within organization, however the same results is expected in the public secondary schools; for instance with better information flow in the secondary school leads to improved internal efficiency (graduation rate and student academic performance). Therefore, this study aimed at examining the influence of information flow on internal efficiency in public secondary schools in Nakuru County.

METHODOLOGY

The study utilized mixed research methodology and concurrent triangulation research design. This investigation was conducted in public secondary schools in Nakuru County in the Republic of Kenya. This county covers 7509.5 km², with 1,603,325 people (2009 Census). It has sixteen managerial divisions. The best location for any study should be accessible to the investigator. Moreover, it is the one that permits immediate connection with the participants (Singleton, 1993). Majority of the schools in the county have registered some wastage through poor transition rate and poor academic performance, thus making Nakuru County the best site for this research. In addition, one study has been done in Nakuru County as per the literature review that relates strategic decisions and performance. The county has roughly 344 institutions that includes of 311 public secondary schools. Furthermore, various kinds of learning institutions exist starting from national level to sub-county institutions inside Nakuru County. Targeted population may be said to be the whole group of entity from which facts shall be used to make conclusions. This study targeted every public secondary school teacher in the county of Nakuru. The county has 11 sub counties. The entire sum of secondary schools in the county was 311, with a populace of 11 sub-county officials, 311 head teachers and 3168 teachers (County Education office, 2016) and it comprises of the target population. The study utilized stratified sampling methods to choose the sample. Referring to Kombo and Tromp (2006) typical sample would be 10- 30 percent of the total targeted population. Consequently, sub-counties chosen for the research were 5 sub-counties as in sample

frame; these sub-counties were selected based on perceived uniqueness of their characteristics. Moreover, selected schools for the investigation are 30. Furthermore, 30 heads and 5 sub-county officers were selected. During the next phase of sampling, the investigator randomly chooses 15% of teachers in selected institutions as participants for the purpose of filling the study instruments (questionnaires). A total of 240 respondents (30 principals, 205 teachers and 5 sub-county education officers) were selected as sample group for the study. That is $31/182 \times 205 = 45$ for Molo Sub- County, $35/182 \times 205 = 35$ for Gilgil Sub- County, $56/182 \times 205 = 39$ for Kuresoi North and South Sub- County, among others. Within the Sub- County sampled for the study, the researcher listed the school as per the alphabetical order and select the first odd numbers as per the number of schools required. Principals were automatically selected from sampled public secondary schools. Further, sub-county education officers were automatically selected from sampled sub-county; where one sub-county officer (officer in the sub-county in charge of quality assurance) to represent sub-county. A total of 205 questionnaires were administered to the respondents. In addition, a total of 35 respondents were anticipated to be interviewed comprising of principals and sub-county education officers. Therefore, a total of 240 respondents were selected for this study. Chance sampling guaranteed that all staff and heads were given equal opportunities to be nominated as members of the sample. Self-administered questionnaires, interview schedule and document analysis were utilized in this study. The piloting of the instruments was carried out in Rongai Sub-county public secondary schools, because it was not included in the sampled sub-counties. Two public secondary schools were selected for piloting and therefore within the sampled schools, 14 teachers were given questionnaires to fill. In addition, two principals from selected schools were interviewed and one sub-county officer was also selected for piloting. The teachers were randomly selected as sample; on the other hand, principals were automatically selected. Piloting exercise was carried out to measure reliability and validity of study tools. Teachers of the two institutions who were considered for piloting were given the questionnaires. The instruments were reviewed and adjusted according to the need that aroused. Cronbach's Alpha coefficient was used to test the reliability of the instrument. Reliability assessment done by use of Cronbach's Alpha established correlation of 0.76 which was close to 0.80, and the researcher considers it as acceptable. A relationship coefficient of 0.80 is acceptable (Mugenda & Mugenda, 1999). The study by Kombo and Tromp (2006), there is preference of the research instrument that is administered once to the respondents while testing for its reliability. Researcher obtained introduction letter from the School of Post Graduate and Ethical and review committee clearance of Mount Kenya University. The researcher also obtained a study permit given by NACOSTI. Consequently, this investigator made a self-introducing letter to the schools sampled. A letter from the County Director of Education, County commissioner and from Sub-county education office. Finally, the researcher entered the sampled school to collect data through the principal's office. Furthermore, directions and guarantee of confidentiality was availed to teachers so that they have adequate time to respond to the instruments. On the other hand, as the teachers were handling their instruments, investigator was interviewing the head of the institution. Later, the investigator gathered the filled-up instruments. Finally, the researcher collected data of sampled form four students on performance and transitional rate. In addition, the researcher interviewed sub-county education officers within sampled Sub-counties. Quantitative data was collected through questionnaires and documentary analysis. Thereafter, it was coded and tabulated for computer analysis. Coded data sheet was keyed in SPSS 23 to help in data analysis. The descriptive statistical instruments were used in data analysis for instance frequencies, percentages among others (item in questionnaire). On the other hand, regression analysis and Pearson correlation were to analyze for inferential statistics (items in document analysis).

RESULTS

Demographic Characteristic of the Respondents

The results on the demographic information of the respondents are presented in figure 1 and 2.

Working experience

The respondents were asked to indicate their working experience. Results of teachers who participated in the study is summarized in the figure 1 below.

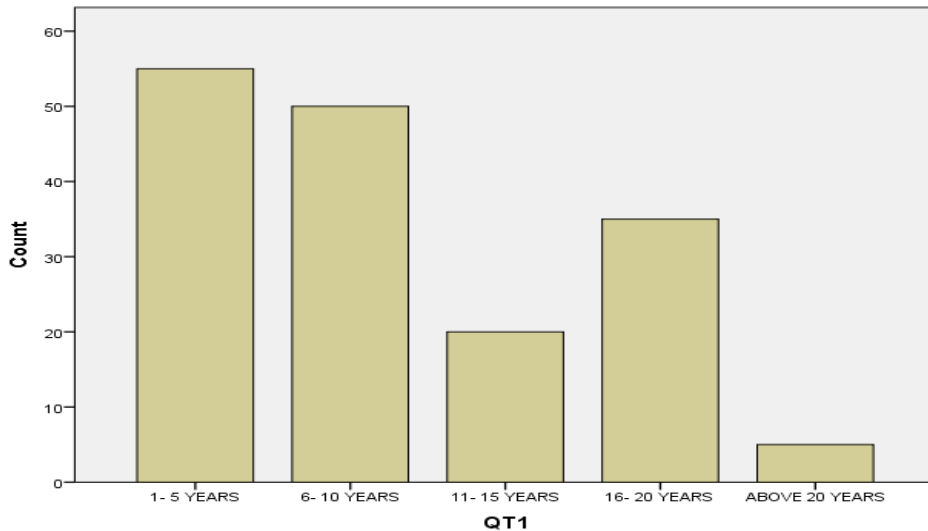


Figure 1: Working experience of the respondents

Figure 1 shows that majority (46 individuals) of the respondents had the experience of 1- 5 years of teaching and this is estimated to be 33% of total teachers in the study. Respondents who had 6-20 years of experience made 67 percent (approximated to be 92 individuals). On the other hand, it was approximated that 3% of the respondents had working experience of above 20 years (3 teachers). From the above statistics it is clear that respondents of the study represented teachers with various working experience, thus the finding of this study was anticipated to give the real situation in the public schools.

Position held by the respondents

Figure 2 shows the position of the respondents in public secondary schools and it comprises of the teachers and head of the departments.

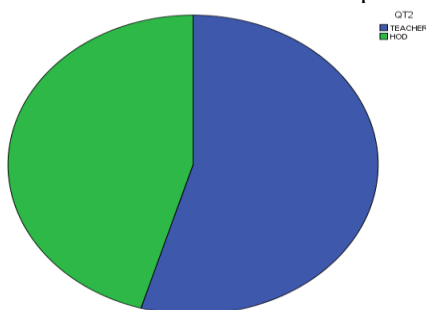


Figure 2: Position of the Respondents in the School

Figure 2 shows the position of respondents: teachers without additional responsibilities were the majority and approximated to be 54.4% (75 teachers). On the other hand, participants who are head of departments were estimated to be 45.5% (63 individuals). It is clear that a number (45.5%) of the participants contributed in the growth and the implementation of the strategic plan, for the reason that in most cases head of departments are the members of strategic planning committees in schools. Therefore, the researcher received the required information for the study.

Information Flow and Internal Efficiency

The study assessed the influence of information flow on internal efficiency in public secondary schools in Nakuru County, Kenya. Thus, 8 items with 5-point scale was used. Therefore, highest mean score should be close to five whereas the lowest mean score should be close to one. This implies that an information flow practice that is close to 5 is the most practiced while an information flow practice close to 1 is rarely practiced. Results are presented in table 1 below.

Table 1: Information Flow

Items	N	Mean		Std. Deviation
		Statistic	Std. Error	
QT3 There is reliable information from school administration with reference to my duties	138	4.0606	.05417	.69578
QT4 There is ease in information flow amongs staff	138	4.0303	.06515	.83684
QT5 I do get up to date information relating to my duties in school	138	4.0303	.06515	.83684
QT6 Information is easily available in the school	138	3.8485	.06693	.85971
QT7 In the school, information flow passes through numerous levels	138	3.6970	.07565	.97170
QT8 School administration have complete competence in subordinate	138	3.3636	.08339	1.07119
QT9 School employees do participate in making decision	138	3.0606	.09791	1.25764
QT10 School staff express their views openly without fear	138	3.3636	.09768	1.25470

Results from table 1 illustrates the mean score attained on information flow and internal efficiency which ranged from 3.0606 to 4.0606. Mean score that is above 3.0 indicates that there is existence of information flow in the school. Whereas, mean score below 3 indicates that information flow does not exist in the school. According to Ndiku, Manjale, Arego and Kuboja (2016), there is reasonable positive correlation between teamwork and communication (0.686). This means that in the school where there is good information flow, there is improved teamwork among all the stakeholders. Therefore, since there was improved communication in the public secondary schools in Nakuru County, it was expected that teamwork which existed and later improved internal efficiency. From table 1, all the means are above mean score of 3, therefore information flow exists in the schools. In addition, QT3 (There is reliable information from school administration with reference with my duties) has the highest mean score of 4.0606. This signifies that most of the school administration does communicate with their staff, on contrary to the findings; researcher expected that school administration ought to communicate all programs in school including strategic plan implementation that is used to improve internal efficiency which is not the case. On the other hand, the participation of school employees on decisions making (QT9) has the least mean score of 3.0606. This is contrary to the expectation of the good plan which states that organization management must involve all

staff members in its operations (UNESCO, 2010). This means that in most schools staffs' contribution in decision making is limited.

The finding of this inquiry concurs with the findings of Kaithia (2014), who established that the majority of the schools adopted bureaucratic leadership (chain of command structure), this structure impedes communication, responsiveness, information sharing, agility, empowerment of front-line staff and it may inhibit strategic plan implementations, thus this may result to internal inefficiencies. According to Lunenburg (2011), feedback assists the organization employees to measure their attainment of performance goals. Further, feedback aid in determining how individual employee is doing and the nature of adjustment required for improving its performance. Muhammad (2013) in his study established that performance appraisal provides feedback and relate it to his/her performance, as result employee is inspired because he/she knows their contribution to the success of the organization.

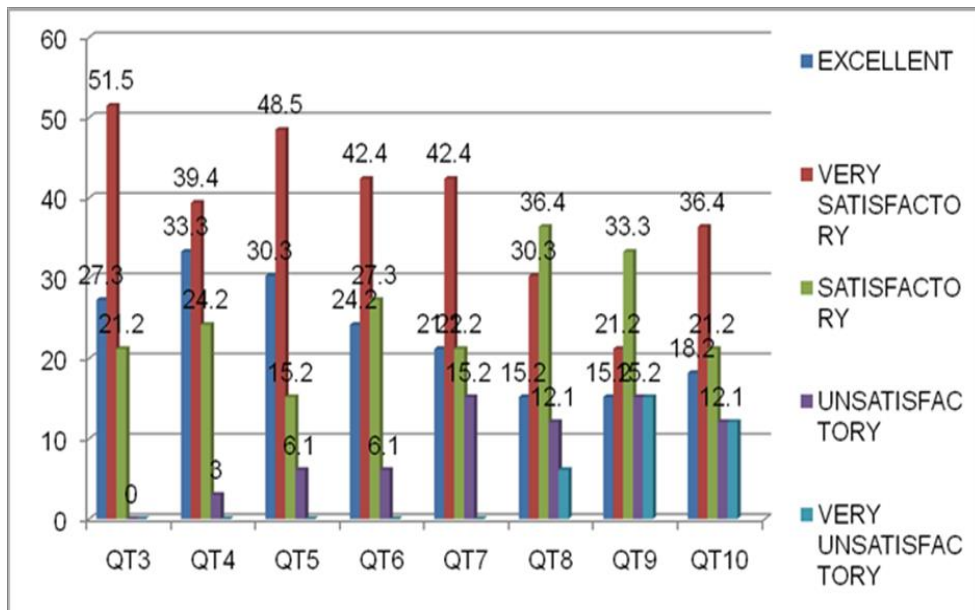


Figure 3: Information Flow in the School

From the figure 3, highest percentage of the respondents (100%) agreed that there is reliable information from school administration with the reference to their duties, whereas none had a contrary view. From the figure 3, only 69.7% of the respondents agreed that school employees participate in making decisions and had the lowest rate. In addition, respondents' observation on the rest of information flow sub-factors in the school was discussed below. In addition of communication within the school, there is a need for the school administration to develop a structure of communication of teachers with the parents. According to Nermeen, El Nokali, Bachman and Votruba-Drzal (2010) as cited by (Mwai, 2012), teachers are supposed to set up structure of positive communication in order to enhance positive interactions with the parents when the need arises and help them solve problems in academic and behavior, moreover the structure will be more effective if it is documented in the school strategic plan and fully implemented. According to Olsen and Olsen (2009), a good strategic plan is expected to bring all the stakeholders together, creates a culture of thinking strategically and part of daily decision making in an organization (schools).

According to the interview conducted in 18 public secondary schools on information flow, the main channels of communication were internal memo, notice boards. In addition, almost all schools (66.7% of the schools) prefer top-down means of communication, even though down-up communication and horizontal exist but it is being used selectively. The results of this study is in accord with results of Kaithia (2014) who ascertained that in public secondary schools, the mode of communicating strategies to the front line staff from school administration is commonly done mainly through memos, notices and letters to the employees. This mode of communication was established to be ineffective and hinder ownership and approval of the strategic objectives.

It is apparent that the channel of communication tends to be top-down in public secondary schools in Nakuru County. This implies that school principal rarely utilizes information from the teachers which is contrary to the findings of Scwella (1996), who states that it is important for the employees who consider that they are well-versed to communicate sufficiently with the seniors and colleagues. In most cases, school strategic plan is prepared by school management. On the other hand, teachers might not participate in strategic plan preparation; however, teachers are involved in the implementation of the strategic plan. According to Dransfield (2001), it is crucial that effective information flow systems are put in place during strategies implementation. Consequently, all the school stakeholders should share the vision, mission, objectives, values and also have good understanding of the strategy and how is related to their effort. This could be the reason why most of the strategies have little effect on intended objective in the school. From the finding, a school that had the means scores of 6.8 in KCSE embraces all channels of communication equally.

On contrary, one of the schools that had the mean score of 3.10 embraces top-down channels of communication (such as students to report to class teacher, class teacher to report to deputy principal and finally deputy principal to report to principal). Further, two schools with a mean grade of 6.8 and 7.59 in KCSE (2016) had graduation rate of 85% and 80.5% respectively and their channel of communication was mostly multi-directional. The finding of this study is in agreement with study by Leithwood and Jantzi (2005) which established that school principal ought to provide a room for staff to participate in decision making through free thought, expression and action within school mission and objectives. According to the study by Neves and Eisenberger (2012), open communication between administration and employees increases organizational performance and thus in agreement with the current study. In addition, it is the role of the administration to enhance communication in the work place, encourage informal communication and train employees on communication skills (Tsai, Chuang and Hsieh, cited in Proctor, 2014).

Further, item QT9 (school employees do participate in decision making during strategic plan implementation) was expected to score highest mean score, however from this study it has the lowest mean score, thus this signifies that most of the schools have not embraced down-up and vertical channels of communication. On contrary, two schools with the mean grade of 3.2 and 2.28 in KCSE (2016) had graduation rate of 57% and 48% respectively. This implies that low performing schools have low graduation rate, thus internal inefficiencies. Further, one of the low performing schools in Nakuru County was not in position to find its strategic plan, while the other had strategic plan without strategic issues or problems. An effective school principal should deliberate on communicating school mission and vision to all stakeholders (Lezotte, 2010).

According to Jones and George (2003) as cited by Kinyanjui and Juma (2014), administrators who relies on rules and standards slows down the process of making decisions in an organization, thus hindering organizational strategy change. Consequently,

slow decision making in an organization is detrimental to the organization, hinders performance and at times it may lead to the failure of the organizational strategy (Gareth, 2011 as cited by Kinyanjui and Juma, 2014). On the other hand, Mutisya (2015) established that good communication in an organization (pharmaceutical companies) leads to the organization growth through effective process of which may lead to increased production. The study by Mohamed and Mwangi (2016) established that poor communication leads to unplanned influence on the strategy implementation. Therefore, the two investigations are in conformity with the findings of this study.

School information flow and internal efficiency can be summarized as follow; the study ascertained that most of the public secondary schools emphasize top-down channels of communication in Nakuru County, Kenya. The researcher anticipated to establish how information flow influences internal efficiency in terms of performance in KCSE and graduation rate. Sub-factor that had the highest mean score in information was QT3 (There is reliable information from school administration with reference to my duties) with the mean score of 4.0606. The item which had the lowest mean score was QT9 (School employees do participate in making decisions during strategic plan implementation) with the mean score of 3.0606. The average mean score of information flow sub-factors is approximately 3.6818, which were above the average mean score of 3.5. In addition, the mean score of the items of school information flow ranged from 3.0606 to 4.0606. According to the study by Tourish (2005), exclusive of an open two-way communication between administration and staff, senior management may turn into out of reach with the staff; underrate emerging issue and also development of strategies that are not aligned with employee's perception.

Table 2: Correlation between Information Flow and Internal Efficiency

		QT12	QT13
QT12	Pearson Correlation	1	.406**
	Sig. (1-tailed)		.000
	N	165	165
QT13	Pearson Correlation	.406**	1
	Sig. (1-tailed)	.000	
	N	138	138

Source: Researcher (2018)

From table 2, the influence of strategic plan implementation in terms information flow on internal efficiency in public secondary schools in Nakuru County, has a positive correlation of 0.406 (significant at 10% level; since $0.000 < 0.01$). This implies that implementation of strategic plan (information flow) was probable to influence internal efficiency. According to study by Scwella et al (1996), it is important to have all-inclusive and synchronized strategy that involves analysis of culture and conveying new rules. Characteristic of communication ought to be: visions of what organization anticipate becoming and how it intends to achieve; an organizational condition and its task environment and data important to its members; and finally, the progress areas identified by the organization as fundamental in realizing its vision.

The table that follows illustrates relationship between information flow and internal efficiency in public secondary schools in Nakuru County, Kenya. Regression analysis as done on academic performance and rate of information flow and the results are presented below.

Table 3: Information and internal efficiency relationship

	R	R Square	B	Sig
Information flow	.158	.025	-.218	.043

Source: Researcher (2018)

It is apparent from the table 3 that information flow can predict 2.5% of the academic performance in KCSE. Further, information flow significantly influences internal efficiency. According to Slevin and Covin (2010), for strategic implementation to be successful, it requires management that is able to share the vision in a way that it influences behavior of staff towards achieving the vision. This implies that management ought to encourage participative in strategy implementation in order to assist in the achievement of improved performance. Hrebainik (2009) identified poor information flow, weak organization structure, unclear responsibility and accountability and resistant to change affect the implementation of strategic plan.

From the interview conducted in some public schools in Nakuru County on principals, it was established that the principal prefers top-down information flow. Downward communication will be effective when top management are highly motivated so that they make it operational; elements that flow downwards include job satisfaction, ideologies, rationale, information and feedback (Rego, Leal and Cunha, 2011). This implies that downward information flow has the role to play in school, therefore its use must be minimal in order to increase internal efficiency. On the other hand, few principals (6 representing 30 percent) were confident to convey that they prefer down up (upward) information flow. School heads of the school which posted good results agreed that down-up information flow improves school internal efficiencies through better academic performance, improved students' discipline, improved teamwork and good transitional rate. According to Canary (2011), upward communication to be effective there is a need for it to be positive, support current policy, timely, be transmit direct to the individual who can act on it, and have innate plea so that it will goes up the system without being overlooked, sent back down or stopped, therefore for upward communication to be effective in public secondary schools in Nakuru County, they must adopt proposals by Canary (be positive, support current policy, timely, be sent direct to the individual who can act on it, and have intuitive appeal).

An interview conducted on the information flow in public secondary schools in Nakuru County, established that the common means of communication is through internal memo, notice board, staff meetings, committees meeting (tendering committees), departmental meetings, seminars, induction, workshops and in-service training. In addition, majority of the schools, information usually flows from top to down (downward) in form of instructions, policies, information on the subject of procedures and directives with minimal room for feedback. According to Jimoh (2015), school as an organization there is a need for communication channels to be made effective, personal and modern in order to enhance internal efficiency or have optimum performance in schools. Further, Jimoh (2015) proposes four types of network namely circle network, wheel network, chains network and all channels network, but the one which is commonly practiced in public secondary schools in Nakuru County was chain network which is characterized by information flowing in one direction. This implies that chain network does not favors improved internal efficiency and it is revealed by poor performance seen in most of the public secondary school in Nakuru County.

Study by Letting (2009) as cited by Anyieni and Areri (2016) established that due to the lack of apparent multi-directional information flow was holding back the elements of strategic plan implementation as means of improving internal efficiency in an

organization. This means that public secondary school problem in the implementation of strategic plan could be due to the lack of multi-directional information flow. In addition, the study conducted by National Association of Secondary School Principals (NASSP, 2012) established skills of a successful principals such as laying down instructional leadership, approving teamwork, being caring to the wide range of learners 'requirements, practicing good judgment, has good organizational ability, is result oriented, is good in oral and written communication, is at home with one's weaknesses and strengths and organizes self-development courses for the staff. On the other hand, from the interview conducted in public secondary schools in Nakuru County revealed that principals had poor communication skills for instance (one of the elements of successful principals) they tend to rely on hierarchical type of communication, which was seen mostly in poorly performing public secondary schools in Nakuru County. Thus, it is clear that poor information flow is the cause of internal inefficiencies in public secondary schools in Nakuru County.

CONCLUSION AND RECOMMENDATIONS

The study established that most of the public secondary schools emphasize top-down channels of communication in Nakuru County, Kenya. The researcher anticipated to establish how information flow influences internal efficiency in terms of performance in KCSE and graduation rate. The average mean score of the all-information flow sub-factors is approximately 3.6818 which were above the average mean score of 3.5. In addition, the mean score of the items of school information flow ranged from 3.0606 to 4.0606. This illustrate that there was information flow in public secondary schools in Nakuru County, on contrary the most common channel of communication in the schools is top-down which was observed that it does not favor both strategic plan implementation and improvement of internal efficiency. In inferential statistics; the item listed for information flow can only account for 2.5% of the variation in the performance (internal efficiency). Further, item of information flow significantly influence performance in public secondary schools in Nakuru County, Kenya.

For school improvement on the internal efficiencies in terms of academic performance and graduation rate, this study recommends that the Information flow in the process of implementing strategic plan in order to improve school internal efficiency need to be open (top-down, down-up and horizontal information flow) to allow input of various skills form all stakeholder so that everyone own the strategic plan and implement it fully.

REFERENCES

- Anyieni, A. G., & Areri, D. K. (2016). Assessment of the Factors Influencing the Implementation of Strategic Plans in Secondary Schools in Kenya. *Journal of Education and Practice*, 7(16), 1-8.
- Bozarth, C. & Handfield, R. (2005). Introduction to Operations and Supply Chain Management. New Jersey, Prentice Hall.
- Canary, H. (2011). *Communication and organizational knowledge: Contemporary issues for theory and practice*. Florence, KY: Taylor & Francis.
- Dransfield, R. (2001). Studies in Economics and Business: *Corporate Strategy*. Heineman.
- Homoud, H. (2015). Internal and External Efficiency of the Saudi Education System: *International Journal of Humanities and Social Science*. 5(8), 1-15.
- Hrebainik, A. (2009). *Strategic Management, Formulation Implementation and Control*, Richard Irwin Publishers, USA
- Hunter, D. (2007). *Managing for Health* London: Routledge.
- Jimoh, D. (2015). Effective Communication: A Tool for Improvement of Secondary School Management. *Journal of Education and Practice*. 3(7): 1.
- Jones, G. & George, J. (2011). *Essentials of Contemporary Management* (4th Ed.). New York: McGraw- Hill? Irwin Inc.
- Jones. C. (2008). *Communicating Strategy*. Hampshire, United Kingdom: Gower.

- Kaithia, D. (2014). An investigation into the factors influencing implementation of strategic plans in public secondary schools in Igembe South District. *International Journal of Social Sciences and Entrepreneurship*, 1 (9), 229-263.
- Katamei, J. & Omwono, G. (2015). Intervention of Strategies to Improve Students' Academic Performance in Public secondary schools in Arid Lands in Kenya. *International Journals of Social science Studies* 3(4).
- Kinyanjui, N. & Juma, D. (2014). Investigate the effect of strategic plans implementation on performance in Kenya's public universities. A case study of the University of Nairobi. *European Journal of Business Management*, 2(1), 161-173.
- Kiruri, C. (2015). Status and Challenges in Implementation of Strategic Plan in Secondary Schools in Kiambu Kenya. Kenyatta University Unpublished Masters dissertation.
- Lechner, C., & Floyd, S. W. (2012). Group influence activities and the performance of strategic initiatives. *Strategic management journal*, 33(5), 478-495.
- Lezotte, L. (2010). *What effective schools do: re-envisioning the correlates*. Indianapolis, IN: Solution Tree.
- Li, Y., Guohui, S. & Eppler, M (2008). *Making Strategy Work: A Literature Review on the Factors influencing Strategy Implementation* ICA Working Paper 2/2008. Institute of Corporate Communication
- Lunenburg, F. (2011). Goal-Setting Theory of Motivation. *International Journal of Management, Business and Administration*, 15 (1), 1-6.
- Ministry of Education (2005). *Sessional paper No. 1 2005 on policy framework for education and training and research*. Nairobi: Ministry of Education.
- Ministry of Education (2010): Educational Statistical Booklet 2003-2007, Government Printers, Nairobi, Kenya.
- Mohamed, G. & Mwangi, M. (2016). Influence of Communication on Stakeholders Strategy Implementation in Garissa County, Kenya. *European Journal of Business and Social Sciences*, 5 (02).
- Muhammad, F. (2013). Role of Performance Appraisal System on Employees Motivation. *Journal of Business and Management*, 8 (4), 66-83.
- Mutisya, S. (2016). *Influence of communication on strategy implementation among Pharmaceutical companies in Nairobi Kenya* (Doctoral dissertation, United States International University-Africa).
- Mutisya, S. (2016). Influence of Communication on Strategy Implementation among Pharmaceutical Companies in Nairobi, Kenya. United State International University. MBA Research Project.
- Mwai, A (2012). Parent involvement in Public Primary Schools in Kenya. PhD Thesis University of South Africa.
- Ndiku, M., Manjale, N., Arego, S. & Kuboja, J. (2016). Correlational Teamwork in Secondary School: A Case study of Musoma Municipality, Tanzania: *Saudi Journal of Humanities and Social Sciences*. 1(1), 26-31.
- Neves, P. & Eisenberger, R. (2012). Management Communication and Employee Performance: the Contribution Perceived Organizational support: *Human performance*. 25:5, 452-464.
- Olsen, H. & Olsen, N. (2009). *Elements of a Strategic Plan*: Winter 2009 NACBA Ledger 23.
- Ouma, W. (2017, December 22nd). Leaders Demand Re-marking and Probe into Mass KCSE Flop. Daily Nation. Nation Media Group.
- Proctor, C. (2014). Effective organizational communication effects, attitude, happiness and job satisfaction. Master of Arts professional communication. Southern Utah University.
- Rego, A., Leal, S. & Cunha, M. (2011). Rethinking the Employees' Perceptions of Corporate Citizenship Dimensionalization. *Journal of Business Ethics* 104, 207-218.
- Sababu, B. (2007). Strategic management: The analytical approach. *Nairobi: Jomo Kenyatta Foundation*.
- Scwellla, E., Burger, J., Fox, W., Müller, J. (1996). Public Resource Management. *First Edition. Juta and Co. Ltd: Cape Town*.
- Thompson, A., Strickland, A. & Gamble, J. (2007). *Crafting & Executing Strategy. Texts and Readings* (15th Edition). New York: McGraw-Hill Irwin.
- Tourish, D. (2005). Critical Upward Communication: Ten commandment for improving strategy and decisions making. *Long range planning*, 38, 485-503.
- UNESCO (2010). Strategic Planning Organizational Arrangement, Educational Sector Working Paper 2, International Institute for Educational Planning, Paris.