

ASSESSING THE ROLE OF MANAGERS IN IMPLEMENTING TECHNOLOGICAL CHANGE IN PUBLIC TRAINING INSTITUTIONS: A CASE STUDY OF THE KENYA SCHOOL OF GOVERNMENT, BARINGO CAMPUS

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Abstract

This study aimed to assess the role of managers in implementing technological change in an organization at the Kenya School of Government. The study was motivated by the concern of slow and abnormal resistance witnessed with emerging technological changes aimed at transforming the performance of an organization. Institutions of learning are knowledge management centred and therefore, utilization of recent technologies to stem up performance such as efficiency, employee performance, corporate relationships and internal knowledge management mechanisms is integral. The limited ease of managerial support, ineffective communication, inadequate training, stalled stakeholder input or involvement has been zeroed in as areas of concern in change management in particular with Government institutions. Therefore, this study was poised to examine the effect of environment in implementing technological change at the Kenya School of Government and establish the effect of communication in implementing technological change at the Kenya School of Government. Also, the study endeavoured to find out the effect of managerial resistance in implementing technological change at the Kenya School of Government. Finally, the study sought to assess the extent to which training contributes to implementing technological change at the Kenya School of Government. Resource-Based Theory, Lewin's Three-Step Change Theory, The Dynamic Capability Theory, Knowledge-Based Theory, and Managerial Hegemony Theory guided this study. The study adopted a descriptive research design in undertaking this study. The study was conducted at the Kenya School of Government covering 178 employees who are staffers at the institution. Through, simple random sampling technique, the study sampled 50% of the target population to inform and respond to the questionnaire which is the main research instrument for data collection. The study utilized a descriptive statistic design to analyse on data collected from the field. Presentation of results was in form of graphs, charts and tabulated tables with respective interpretations and discussions provided. The study found out that there is an effect of environment, communication, managerial resistance, and training on the implementation of technological changes of institutions. The study is important to the departments, Agencies, County and National Governments in Kenya, the Council and management of the Kenya School of Government, staffers and technological service providers, academicians and researchers with interest in change management, leadership and general management of public.

Key Words: Technological Change, Training, Communication, Environment, Management

Introduction

Technology enhances efficiency. Organizations utilize technology to aid service delivery and production of products (Butt et al., 2016). Technologies remain dynamic, complimentary and with continuous improvement or updates with aim of perfecting service delivery or station performance. Organizations are increasingly adopting new technologies, such as social media, that afford employees a repertoire of uses not simply focused on work, but also socialization and entertainment. Managerial support is an important pillar in the excellence of an organization (Walker et al., 2015). Ample environment and location of an institution play a critical resilience role towards the performance of employees and more instance students learning in such institutions.

Seamless communication in an organization vitally improves the connectivity and relations of occupants in an organization (Kimosop *et al.*, 2016). Training of staff and continuity knowledge management in an organization contributes to modernization and co-existence with recent developments in the area of specialization. Stakeholders, clients and parties related to staff and students remain an integral part of an organization in terms of resource support, external input, corporate image and influencing or perfecting corporate culture of an organization. Such is evidence is with public training institutions that are core knowledge cum resource pillars for Governments.

Technological change is the swift process innovation, improvement and diffusion in a particular area of application (Li et al., 2016). Firdaus & Handriyono (2018) add that technological change is meant to instil and improve efficiency, delivery and fasten the organizational process. Organizational conduct technological changes during different periods with different aims solely for increasing outcomes and stemming the performance of an institution. Role of managers plays a vital role in institutional changes and transformations. Chege et al. (2020) define the role of managers as the leadership mantle or description of activities an individual in position has to deliver. Managers are in charge of planning, execution, monitoring implementation and reviewing or evaluating project or activities undertaken in their jurisdiction. Managers rely on teamwork and cooperation in the success of an activity. Too (2018) confers that institutional managers require both visible and invisible support such as experienced staff and technologies to accomplish a task. Anyieni (2017) hold that availability of resources, clear resource utilization, employment involvement and transformative leadership directly steer change management processes.

Barbalho et al. (2019) argue that training organizations are deemed sources of information owing to their intensive and extensive continuous research and development in empirical and theoretical aspects. Governments pump resources to learning institutions to increase knowledge management, develop and inculcating new developments, policies and or internal mechanisms instrumental to the development and welfare of Government and private sector employees (Wanza & Nkururu, 2016). Managers of Government organizations are implementers of decisions and policies of Governments. Institutional responsiveness to change is important in aiding performance or meeting key performance indicators (KPIs) (Nicholas, 2017).

The indifference of leadership styles adopted by managers is reflected in their outcome. Corporate image and internal employee retention instrumentally play a vital role in the admiration or and success of an organization (Kagermann, 2015). Institutions with lag in technological implementation record slow service delivery and poor outcomes. Gibon et al. (2015) opine that management and organizational performance define the success of an institution. Effective planning and execution process fasten the implementation of the planned project or strategic activities (Barbalho et al., 2019). Managers with transformative focus, technology-friendly and adequate resources witness early institutional changes stemmed for growth and improved productivity. Government institutions are known with underfunded and slowed change processes in implementing technological and management changes.

In Africa, government institutions are known to fail to meet their KPIs and even strategic planning. George et al. (2016) confer that public institutions fail to meet their annual project deliveries and internal changes due to underfunding and constrained systemic government protocols. Large scale climate change projects involving technological changes are resource-intensive and have to meet environment settings to affect the production of products and delivery of services (Gibon et al., 2015). In Kenya, Kario & Ngugi (2017) observed that change management is resistance sensitive however, clear managerial approaches and employee involvement leads to effective changes.

Resource-Based Theory, Lewin's Three-Step Change Theory, The Dynamic Capability Theory, Knowledge-Based Theory, Stakeholders' Theory and Managerial Hegemony Theory guided this study. Resource-based theory envisions the need for adequate resources to undertake a change in an institution. Lewin's Three-Step Change Theory explains the core processes involved in an organizational or management change (Tan, 2006). Dynamic capability theory similarly to systems theory endeavours to add insight to this study by explaining the human capital and competence abilities needful to undertake a particular task (Aitken, 2010). Stakeholders' theory explains the role of external input in terms of

manpower and resources, invisible insights by like parties play to stem performance and excellence of an organization (Mabin et al., 2001). Managerial hegemony theory outlines the qualitative elements of a manager tasked with providing organizational leadership and guidance. Therefore, this study aimed to investigate the role of managers in implementing technological change at the Kenya School of Government, Baringo Campus.

The Kenya School of Government Act (No. 9 of 2012) established the Kenya School of Government (KSG). Today it offers services to both National and County governments, private sector players as well as those from the Non-Governmental Organizations (NGOs). In maintaining the certification, the school's contractual obligations include continuous improvement through continuous audits, training and improvement on quality. This requires both monetary and other resources. The choice of the school for examination by this study was that it has undergone a series of technological changes in the recent past and that the researcher is a member of staff of the school. The turbulent nature of the business environment is increasing with the complexity in solving problems and making accurate decisions (Treem et al., 2015). In response, system thinking has been considered as a potential solution that offers a comprehensive understanding of organizational structures. Addressing problems in complex systems requires not only technical and business knowledge but also years of managerial experience ——'(Islam et al., 2015).

Facing competitive competition, external and internal challenges, encouraging companies to make change management, both structural change, technological change and people change (Stone et al., 2015). The success of management change will be seen in increasing employee motivation at work. A manager must have managerial skills and technical skill to determine the right policies and strategies —(Larivière *et al.*, 2017; Mainelli & Smith, 2015). Managerial skills will be able to convince motivated employees to participate in realizing the Organization's goals.

In the recent past, there remains a concern with slow and abnormal resistance witnessed with emerging technological changes aimed at transforming the performance of Government or public institutions. Institutions of learning are knowledge management centred and therefore, the minimal and slow utilization of recent technologies to stem up performance such as efficiency, employee performance, corporate relationships and internal knowledge management mechanisms is integral. The limited ease of managerial support, ineffective communication, inadequate training, stalled stakeholder input or involvement has been zeroed in as areas of concern in change management in particular with Government institutions.

Input by Kimosop et al., (2016b), Valentine (2017), Too (2018), Buya et al. (2018) findings confer conceptual evidence, and therefore the need to provide contextual evidence on the role of managers in implementing technological change is probable by this study. It is there the need for this study to have assessed the role of managers in implementing technological change in an organization at the Kenya School of Government.

The main objective of this study was to assess the role of managers in implementing technological change in an organization at the Kenya School of Government.

This study was guided by the following specific objectives:

- i. To examine the influence of environment in implementing technological change at the Kenya School of Government.
- ii. To assess the extent to which communication affects the implementation of technological change at the Kenya School of Government.
- iii. To establish how managerial resistance affects the implementation of technological change at the Kenya School of Government.
- iv. To find out the extent to which training contributes to the implementation of technological change at the Kenya School of Government.

The study is important to the departments, Agencies, County and National Governments in Kenya, the Council and management of the Kenya School of Government, staffers and technological service providers, academicians and researchers with interest in change management, leadership and general management of public.

Literature Review

Theoretical Literature Review

This section seeks to review the theoretical foundation of the studies.

Managerial Hegemony Theory

Mallete and Fowler proposed the managerial hegemony. Managerial hegemony theorists' basic principle was that "corporations have governing boards used by professional managers to support and validate their decisions (Aitken, 2010). Managerial hegemony theory indicates that a class of professional managers runs the modern corporations and that it is those managers, not the board of directors, who make all the strategic decisions" (Herold et al., 2008). According to this theory, "corporates boards are legal fictions which are ineffective in averting conflicts between management and stakeholders despite the powers conferred on them to realize the same". The theory emphasizes the role of agents in support of the agency theory, but focusing on the organization structure viewpoint (Hafford-Letchfield, 2009). Managerial hegemony theory suggests that "boards of directors will not get involved in strategic decision-making independent of management and conversely that professional managers will resist calls for board involvement in strategic decision-making" (Doh & Stumpf, 2005).

Managerial hegemony theory supports the perspective of agency theory that recognizes the shareholders in a corporation (Lewin, 1980). Therefore, the approach is relevant to this study as it introduces the shareholders, board of governance and the managers as the stakeholders in the state corporations. According to Rich (2016), "the board in state corporations does not have the power to carry out its duties. It is merely reduced to a rubber stamp institution for management with decisions originating from not only the executives but also politicians and managers"; where the performance of the corporations may be adversely affected. Thus, this theory is applicable to assess the role of managers in implementing the technological changes at the Kenya School of Government.

Empirical Literature Review

This section reviews empirical studies conducted in various aspects concerning variables under consideration by this study.

"Wanza and Nkuraru (2016) examined the effects of change management on the performance of employees concerning technological changes, organizational leadership, structure and culture. The study adopted a case study research design where a target population of 403 employees and a sample size of 121 employees was selected using a simple random sampling technique. The study revealed structural changes and organizational leadership influenced university employees' performance positively. The study further revealed that technological changes have a great impact on employees' performance due to the rapid technological changes that the world is rapidly adjusting that eases employee's workload and to increase efficiency and effectiveness at workplace. A strong organizational culture creates synergy and momentum that encourages teamwork and enhances employee performance.

Orford et al. (2017) studied the effect of communication skills training on outcomes in critically ill patients with life-limiting illness referred for intensive care management as a before-and-after study. The primary outcome was documentation of patient-centred goals of care discussion (PCD) within 48 hours of referral to the ICU. Secondary outcomes included clinical outcomes and 90-day mortality. The study revealed increased documentation of a PCD from 50% to 69% ($p=0.004$) and 43% to 94% ($p<0.0001$) in patients deceased by day 90. A significant decrease in critical care as the choice of resuscitation goal (61% vs 42%, $p=0.02$) was observed. Although there was no decrease in admission to ICU, there was a significant decrease in medical emergency team call prevalence (87% vs 73%, $p=0.009$). The cancer and organ failure groups had a significant decrease in 90-day mortality (75% vs 44%, $p=0.02$; 42% vs 16%, $p=0.01$), and the frailty group had a significant decrease in 90-day readmissions (48% vs 19%, $p=0.003$).

According to a study on dispositional resistance to change and emotional exhaustion: moderating effects at the work-unit level by 'Turgut *et al.* (2016), organizational change, although essential for business success, may negatively impact employees' well-being. The study through multilevel analyses, it revealed that dispositional resistance to change is positively related to emotional exhaustion. Moreover, a lack of perceived organizational support and a high informational team climate strengthened these effects. It concluded that organizations should offer coaching and training programmes to cope with organizational change for employees who are highly changing resistant.

According to 'Korb *et al.*, 2016) in investigating the effect of training on teachers' knowledge of effective classroom management strategies in Jos metropolis. It found out that the number of strategies that teachers believe is effective for classroom management was significantly higher after the training, indicating that the training was effective in improving teachers' knowledge about classroom management. Specifically, the number of proactive strategies that teachers believed were effective for classroom management significantly increased after training, whereas the number of reactive strategies remained unchanged.

Norfazlina et al. (2016) investigated Customer Information System Satisfaction and Task Productivity as the Moderating Effect of Training. The study found out that all three factors (Ease of Use, Content, and Format) had a significant relationship towards task productivity of CIS. The results also indicated training significantly moderated the relationship between ease of use in CIS and task productivity, however; it did not moderate the relationship between user satisfaction (Content and Format) and task productivity.

Another study by Bhatt et al. (2017), studied a prospective audit on the effect of training and educational workshops on the incidence of urethral catheterization injuries. The study held that current forms of educational and training interventions for urethral catheterization did not significantly change morbidity or cost of iatrogenic urethral catheterization injuries despite a decrease in incidence. Improved and intensive training protocols are necessary for urethral catheterization. The study does not disclose the contribution of training towards the technological change in an organization.

Valentine (2017) investigated the effect of training and development on employee performance at Kakamega County General Hospital in Kenya. The study adopted a descriptive research design method to undertake the study. The study held that there was a significant relationship between training and development and performance of employees. However, the study limitlessly does not disclose the contribution of training towards technological change.

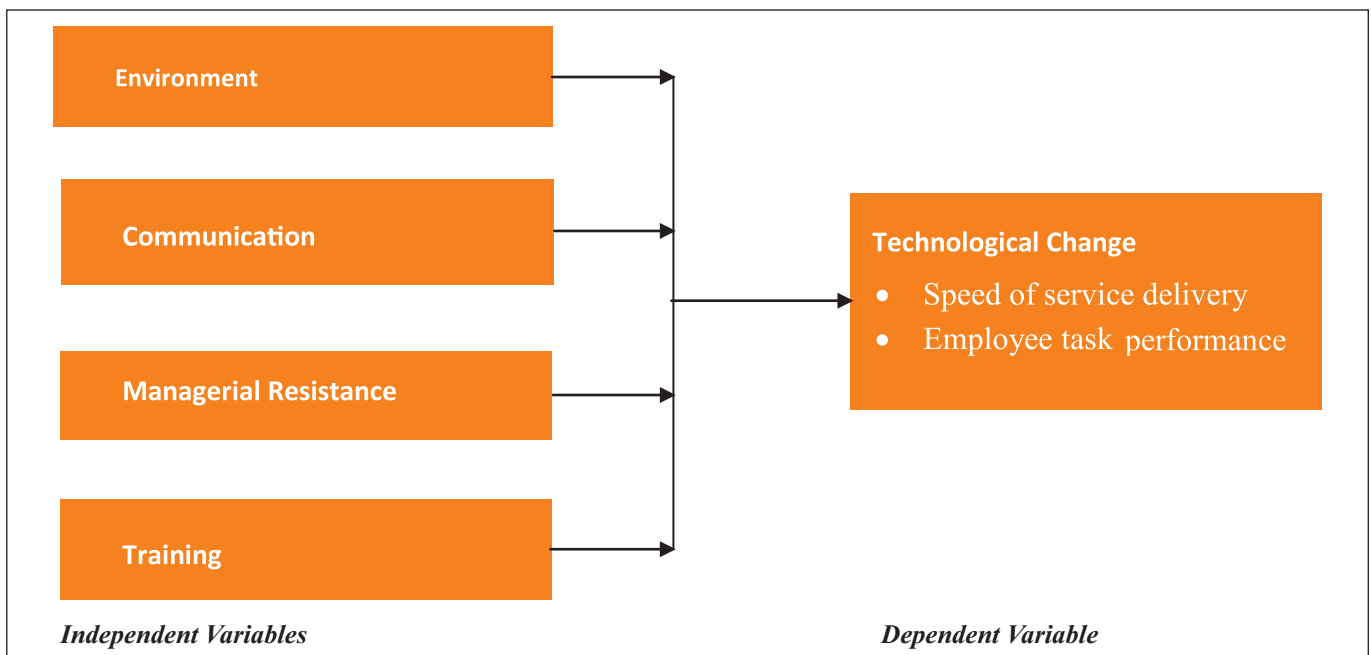
Summary of Research Gaps

From the reviewed literature, it can be established that leadership is essentially a process of social influence in which individuals want to feel included, supported and reinforced, especially during change. Relations between individuals and their leader will affect perceived leader effectiveness. As such, an understanding of such relations needs to address issues of the individual's self-concept. Doh & Stumpf (2005) suggested that core aspects of the self are relatively stable across situational constraints, but many peripheral aspects such as organizational changes, communications and culture and leadership practices may be constraining factors that affect consequences for individuals and therefore their perceptions of the leader. However, evidence on the knowledge regarding the impact of diverse technologies on organizational performance remains limited in particular to Kenya.

Conceptual Framework

This study will examine the role of managers in implementing technological change at the Kenya School of Government. The study will examine the environment, communication, managerial resistance and training as independent variables against technological change as the dependent variable. Figure 2.1 provides illustrations of the variables.

Figure 2.1: Conceptual Framework



Research Methodology

Research design has been defined as the planning model with in-depth content (the time, expenditure or budget, the means of data management, analysis) layout on how the research was conducted and output expectation. The study used a descriptive research design. According to Cumming (2006), descriptive research is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals.

This study targeted 178 employees working at the Kenya School of Government. Table 3.1 tabulates the distribution of staff members per the department.

Table 3.1: Target Population

Department	Target Population	Percentage
Department of Devolution Studies (DDS)	21	11.80%
Department of Public Financial Management	32	17.98%
Department of Advanced Training, Research And Consultancy (CATRC)	23	12.92%
E-Learning Development Institute	28	15.73%
Department of Leadership and Management	56	31.46%
Department of Ethics and Integrity	18	10.11%
Total	178	100.00%

Source: Kenya School of Government (2020).

The sampling frame describes the list of all population units from which the sample will be selected "(Patten & Newhart, 2017). This study adopted a simple random sampling technique. It sampled 50% of the staff to participate in the study. Therefore, 89 employees responded to the questionnaire.

Table 3.2: Sample Population

Department	Target Population	Sample Size	Percentage
Department of Devolution Studies (DDS)	21	11	11.80%
Department of Public Financial Management	32	16	17.98%
Department of Advanced Training, Research And Consultancy (CATRC)	23	12	12.92%
E-Learning Development Institute	28	14	15.73%
Department of Leadership and Management	56	28	31.46%
Department of Ethics and Integrity	18	9	10.11%
Total	178	89	100.00%

This study relied on a questionnaire to collect sufficient data for use in analysing and answering research questions. The questionnaire covered demographic information, objectives of this study and the dependent variable. This was important to obtain data that was used in assessing the relationship of variables.

Before using questionnaires, a pilot study was conducted. This is to test whether the questionnaire will be clear to all respondents and test if the questionnaires will effectively address the data needed for study and finally test the correctness of data collection tools (validity and reliability). Even though the data to be collected during the pilot study were not be used in the final data analysis, it served as a key pointer as to whether the questionnaire is structured to fit the purposes of the study (Jamshed, 2014). After the pre-test, the researcher amended the questionnaire based on the views given by the respondents during pre-testing to improve the questionnaires before the actual collection of data. The departmental sections selected for the pilot study were excluded from the sample to be used for the main study.

After structuring the questionnaire, the researcher had the entire questionnaire dropped at Baringo Campus of Kenya School of Government for filling. The researcher ensured all officers working at the companies receive a questionnaire and account for the number of distributed questionnaires. The researcher collected the questionnaires after 1 week. This enabled respondents to have adequate time in answering to questions contained in the questionnaire.

The study ensured proper coding and cleaning of collected data for further analysis. This study utilized descriptive statistics to analyse-collected data. This study used descriptive statistics in the analysis of data. Once the data is collected it was cross-checked and verified for errors, completeness and consistency. It was coded, entered and analysed descriptively using the Statistical Package for Social Sciences (SPSS 21).

FINDINGS

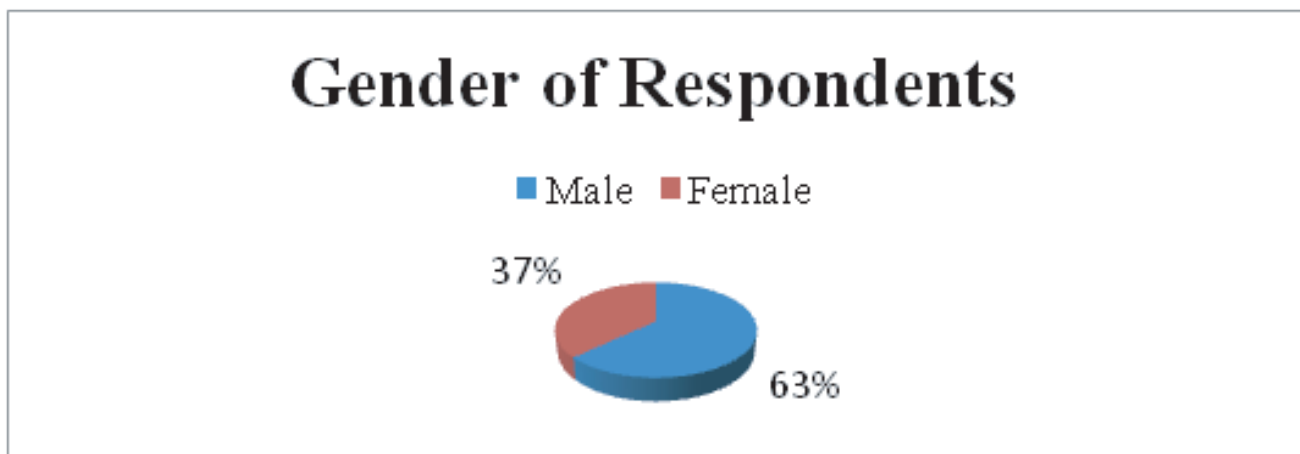
Demographic Information

This section presents the findings on the gender of the respondents, the highest level of education of respondents, and the years of work experience respondents have served at the Kenya School of Government (KSG).

Gender of Respondents

The study sought to find out the gender of the respondents serving at KSG.

Figure 4.1: Gender of Respondents



Source: Research Data (2020).

Based on the findings shown in Figure 4.1, it was revealed that KSG staff are male by a high of 63% and female by 37%. It, therefore, corresponds to the two-thirds constitutional gender rule.

Highest Level of Education

The researcher sought to find out the highest level of education of respondents.

Table 4.1: Highest Level of Education

Education Level	Frequency	Percentage
PhD	0	0%
Bachelor's Degree	24	27%
Diploma	43	48%
Others (specify)	11	12%
Total	89	100.00%

Source: Research Data (2020).

Based on reported findings in table 4.1, it was revealed that at a high of 48% of the staff were diploma holders, followed by bachelor degree at 27%, and for both Masters and other qualification at 11% with no one with a PhD degree. Its, therefore, can be argued that the majority of the staff at KSG are well informed and therefore, suitable in responding to this study.

Years of Work Experience at KSG

The researcher sought out to find the years of experiences held by the staff at KSG.

Table 4.2: Years of Work Experience at KSG

Years of Experience	Frequency	Percentage
Up to 5 years	22	25%
6-10 years	46	52%
11-15 years	19	21%
Over 15 years	2	2%
Total	89	100%

Source: Research Data (2020).

Based on findings reported in table 4.2, it was evidenced that the majority of the staff working at KSG have 6-10 years by 52% and few have over 15 years of experience by 2%. It, therefore, indicates that the staff at KSG have the right experiences to implement technological changes.

Role of Managers and Implementation of Technological Change

In this section, the study provides evidence of the extent of agreement to various attributes of environment, communication, managerial resistance, training concerning the implementation of technological changes at KSG. Using the scale of 1= Strongly Disagree, 2= Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, the researcher sought to assess the extent of agreement with indicators at the Kenya School of Government.

Effect of Environment in Implementing Technological Change

Table 4.3: Effect of Environment in Implementing Technological Change

Environment Indicators	MEAN	SD
We offer proper institutional positioning for ease of identification	3.55	9.62
We have used a hazard-free floor and therefore limiting hazard occurrences	3.11	8.84
We have incorporated hybrid designs in our organization	2.88	9.58
There is adequate infrastructure to aid organizational changes	3.29	4.66
There is adequate space for organizational changes	2.88	12.09
There exist a friendly climate to undertake organizational changes	2.97	5.81
The community around the organization supports us during changes	3.12	6.38
We have good lighting systems for proper institutional identification	3.24	3.96
Overall Mean Score	3.13	7.62

Source: Research Data (2020).

Based on the findings reported in Table 4.3, it was agreed that at KSG, they have institutionalized proper positioning for ease of identification. It was agreed that KSG has incorporated hybrid designs in our organization, and there is adequate infrastructure to aid organizational changes. Also, it was agreed that there is adequate space for organizational changes, and there exists a friendly climate to undertake organizational changes. Finally, it was agreed that the community around the organization supports KSG during changes and there are good lighting systems for proper institutional identification. In totality, agreement to the extent of the influence of environment in the implementation of technological change yielded a mean score of 3.13.

From the evidence of research findings, there is an effect of the environment in the implementation of technological changes. This is in line with (Javanparast *et al.*, 2018) who examined Change management in an environment of ongoing primary health care system reform of Australian primary health care services. The findings revealed that that service with a community-controlled model of governance had more autonomy to use an emergent model of change and to maintain their comprehensive PHC services. According to "Chege *et al.* (2020) in examining the effect of information technology of firm performance, it was revealed that technology innovation influences firm performance positively.

Effect of Communication in Implementing Technological Change

Table 4.4: Effect of Communication in Implementing Technological Change

Communication Indicators	MEAN	SD
We prepare comprehensible reports	3.89	15.99
We comply with the organizational goals and stick to activity timelines	3.48	10.69
We make comprehensive organizational decisions	2.97	12.99
We have a communication channel for engaging	3.51	10.08
There exists a top-down communication	3.39	6.30
There exists a service charter for every service provided	3.90	16.35
There exists clearly defined terms of change	3.20	3.90
Employee expectations remain high during organizational changes	3.45	15.27
Overall Mean Score	3.47	11.45

Source: Research Data (2020).

Based on the findings reported in 4.4, at an overall mean score of 3.47, it was agreed that KSG prepares comprehensible reports and complies with the organizational goals and stick to activity timelines. Also, comprehensive organizational decisions are made and that there is a communication channel for engaging. It was also agreed that there exist a top-down communication and a service charter for every service provided. Finally, it was agreed that there exists clearly defined terms of change and employee expectations do remain high during organizational changes. It, therefore, implies that there is clear communication when implementing technological changes at KSG.

Based on the evidence of this study that communication affects the implementation of technological changes; it echoed findings of Ouedraogo and Ouakouak (2018) who investigated impacts of personal trust, communication, and affective commitment on change success, Angela-Eliza and Valentina (2018) who investigated organizational communication and change management as national challenges and European perspectives. It was also in line with Yue *et al.* (2019) who investigated Bridging transformational leadership, transparent communication, and employee openness to change as the mediating role of trust.

Effect of Managerial Resistance in Implementing Technological Change

Table 4.5: Effect of Managerial Resistance in Implementing Technological Change

Managerial resistance	MEAN	SD
There exist a transformational leadership style	3.18	3.90
Employees are involved in the decisions and activities of the organizations	3.06	4.09
There exist mediation processes in tackling disagreements at the management level	2.89	15.61
There exist low managerial expectations on new changes	2.98	3.27
The decision making processes is seamless	3.22	5.93
Overall Mean Score	3.07	6.56

Source: Research Data (2020).

Based on reported findings in table 4.5, at a mean score of 3.07, it was agreed that there exist a transformational leadership style and employees are involved in the decisions and activities of the organizations. Also, it was agreed that there exist mediation processes in tackling disagreements at the management level and low managerial expectations on new changes. Finally, it was evidenced that the decision-making processes are seamless. It, therefore, implies that managerial resistance affects the implementation of technological change in both a positive and negative way.

The study also found out managerial resistance to influence negatively technological changes. This is in line with Ruiz-Jiménez and Fuentes-Fuentes (2016)'s findings that management capabilities have a greater influence on both product and process innovation when the management team is more balanced in several men and women. Also, Nagahi et al. (2019) investigated the moderation effect of managerial experience on the level of systems-thinking skills. It was evidenced that managerial experience moderates an individual's systems thinking aptitude toward problem-solving.

Effect of Training in Implementing Technological Change

Table 4.6: Effect of Training in Implementing Technological Change

Training	MEAN	SD
Training influence the productivity of employees	3.69	16.66
There are specific training aspects/objectives	3.65	13.07
We attend regular training	4.25	19.87
Training involves every employee in the organization	3.85	17.56
We attend different types of training	3.87	13.59
There is an increase in the number of training	4.08	17.54
Overall Mean Score	3.90	16.38

Overall Mean Score

Based on findings reported in table 4.6, at a mean score of 3.90, it was agreed that training influences the productivity of employees and that there is a specific training aspects/objectives. Also, it was agreed that KSG staff attend regular training, which involves every employee in the organization. Finally, it was agreed that employees attend different types of training, and the number of training had increased.

The study found out that training positively affects the technological changes of an institution. According to Valentine (2017) who investigated the effect of training and development on employee performance at Kakamega County General Hospital, found out that training positively impacted employee performance as they were equipped with most recent knowledge and skills needful for performance and productivity. Also, the findings echo Hatfield et al. (2020) results who investigated systematic review of the effect of training interventions on the skills of health professionals in promoting health behaviour, with meta-analysis of subsequent effects on patient health behaviours. Their productivity was found out to better understand and manage patients well.

Technological Change

Table 4.7: Technological Change

Technological Change	MEAN	SD
There's an improvement in the speed of service delivery	3.67	12.13
Employee task performance has improved	3.29	19.32
Project activities are executed with speed	2.88	6.83
There are minimal error and data loss in the organization	3.16	8.79
We have reduced cost of doing business	3.46	8.35
Overall Mean Score	3.29	11.08

Source: Research Data (2020).

Based on reported findings in table 4.7, at a mean score of 3.29, it was agreed that there's an improvement in the speed of service delivery, and employee task performance has improved. Also, it was agreed that project activities are executed with speed, and there are minimal error and data loss in the organization. Finally, it was agreed that KSG has reduced the cost of doing business. It, therefore, implies that technological changes at KSG have a positive impact on the operational way of undertaking business and productivity.

Conclusions and Recommendations

Conclusion

This study concludes that there is an effect of environment, communication, managerial resistance, and training on the implementation of technological changes of institutions. Right managers must have the capabilities to handle work change management, know how to integrate project plans while ensuring unity in the implementation processes.

Recommendations

This study makes a series of recommendations for consideration.

First, there is a need to build collaborative and stakeholder relations in the environmental setting of the Kenya School of Government. KSG is a public training institution and therefore, community, stakeholder, and other members of the environment in which they have established their Campus; there is the need to establish very strong and sustainable relationships. This will play an instrumental role when conducting changes at the institutions.

Secondly, technology is an effective pillar for the efficiency and productivity of employees and corporate performance. It is therefore important for the employees to be induced to new technologies that are viable for their productivity and score highly in providing technical support. Therefore, this study recommends regular update, user training and introduction of a culture in terms of knowledge management towards technological upgrade or utilization.

Thirdly, communication is an important segment of any team or organization. From the study, it was observed that service charter, a channel for communication or presenting grievances, employee concerns and other internal communication protocols played a vital role. It is, therefore, a recommendation of this study that there needs to be a collaborative, teamwork and viable communication channels that are built on trust, the ethos of corporate communication for easier implementation of technological changes.

Fourthly, managerial resistance is a defeatist manner of executive management when positive changes are induced into an institution. The need for transformation leadership style in implementing institutional projects is viable and welcome. It is, therefore, the recommendation of this study that to achieve progressive project results, there is the need for minimal managerial resistance and existence culture of transformational leadership style within public training institutions.

Fifthly, value-based training is known to increase productivity, have team staff remain modern to the current knowledge changes and have the right skills for work delivery especially with the use of technologies. Therefore, this study recommends that training should be regularized with modern knowledge and technologies that have an impact on the skills, productivity and overall corporate culture growth.

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