ROLE OF STAKEHOLDERS' INVOLVEMENT IN IMPLEMENTATION OF INFORMATION AND COMMUNICATION TECHNOLOGY PROJECTS IN STATE CORPORATIONS IN KENYA. A CASE STUDY OF KENYA AIRPORTS AUTHORITY

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ABSTRACT

This determined the role of stakeholders' involvement and its specific objectives, which include: determining the role of stakeholder identification, stakeholder planning, stakeholder engagement management and stakeholder control on the implementation of ICT projects in Kenya. This study was restricted to the KAA Head Office and will focus on 128 staff. It applied a descriptive research design. Since this study used a census survey where all the elements of the entire population for small populations of 200 or less were used it did not apply any sampling. The study used self-administered questionnaires on 128 respondents from the target population who were given two weeks to complete the questionnaires before collection using a drop and pick arrangement. The collected data was analysed using both descriptive and inferential statistics with the aid of SPSS. The results were then presented using tables and figures. The findings pertaining to the correlation analysis showed that Stakeholder Control had the strongest positive correlation with Implementation of ICT Projects, followed by Stakeholder Engagement Management, Stakeholder Planning and Stakeholder Identification, respectively. This indicated that Stakeholder Control is the most influential factor on the implementation of ICT projects.

Key Words: *Stakeholder Identification, Stakeholder Planning, Stakeholder Engagement Management, Stakeholder Control*

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INTRODUCTION

The management of organisations is an increasingly demanding endeavour given the level of dynamism. This is especially so in the implementation of projects which do not always get the requisite attention that they deserve. One of the aspects of project management that have been applied in the attempt to achieve successful implementation is stakeholder involvement. Stakeholders are individuals and institutions that have, or purport to have an interest in a project (McGrath and Whitty, 2017). Stakeholder involvement is defined by Griffiths, Maggs, and George (2008) as the process by which stakeholders participate in a given business venture for a variety of reasons, including altruism – where they believe it is the right thing to do; investment – to make a profit; compulsion – there is no other option; and lost opportunity – where the potential benefits outweigh the costs of not participating. The basis for stakeholders' involvement in a project is the project stakeholder management arrangements that have been put in place by an organisation. The Project Management Institute (PMI) (2017) defines project stakeholder management as the processes required to ensure the identification of the organisations, groups, or people that influence or are influenced by the project, how stakeholder expectations are managed as well as the effect of their involvement on a given project, and the development of appropriate management strategies for effective engagement of stakeholders in project decisions and execution.

According to Ekung, Okwokwo, and Odesola (2014), development initiatives in Nigeria's Niger Delta involve numerous community stakeholders who must be thoroughly involved prior to the start of any project, a process that includes project managers and community representatives. A variety of obstacles hampered this process, including issues with stakeholder leadership selection, a lack of stakeholder input in policy formation, and a lack of a defined engagement strategy. Dada (2013) found that stakeholder involvement for construction projects in Nigeria feature architects, builders, civil/structural engineers, mechanical engineers, estate surveyors, quantity surveyors, client organisations, contracting organisations, and the public. These stakeholders focus on issues such as project completion time and cost, whether the projects are meeting or exceeding expected or agreed quality requirements.

A study conducted by Nangoli, Namiyingo, Kabagambe, Namono, Jaaza and Ngoma (2016) on stakeholder engagement health projects executed by non-governmental organisations in Uganda revealed that the stakeholder involvement process comprised a number of activities including consultation, decision making and participation; in addition, it was imperative for beneficiaries to be included in the decision making in order to increase the stakeholder involvement. However, mere consultation of stakeholders fails to offer any guarantee that the implementers of projects will consider their ideas and concerns. These findings are consistent with Kajoba (2016) who discovered that stakeholder involvement in the planning, implementation, and the monitoring and evaluation (M&E) process influences the service delivery of projects. This notwithstanding, the level of stakeholder involvement varied for the three aspects of the project lifecycle such that only project management team were involved in the planning; sensitization workshops have been held by organisations to ensure public participation during project implementation; but the organisations have not been engaging with the communities in the evaluation process in terms of giving feedback.

According to Wamugu and Ogolla (2017) the Constituency Development Fund (CDF) projects in Kenya have performed poorly due to low or non-participation of local communities and other stakeholders in project identification and selection; as such only 25% of the projects were identified through community consensus, another 25% were attributable to CDF committees and 21% to the particular Member of Parliament (MP), and 12% to the MP's close associates. The stakeholders are

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most critically involved in these projects during the earliest stages of the initiation since they can best influence the outcome of the project, but their involvement is dependent upon the perceived level of trust, acceptability – ownership and beneficiary satisfaction. Muli, Bwisa and Kihoro (2016) shed more light on stakeholder involvement in Kenyan CDF projects by stating that the involvement of suppliers/contractors from the initiation of the project was a clear indicator of the lack of awareness by the project procurement committee of the supply market and, thus, had to rely inordinately on suppliers/contractors.

KAA has put in place several key marketing and customer focus initiatives that have given the organisation greater brand visibility and enhanced the customer experience within Jomo Kenyatta International Airport (JKIA). Marketing research with regard to customer satisfaction, both internal and Airport Council International (ACI) service quality benchmarking surveys have been some of the key drivers in the product improvement and infrastructural developments at JKIA. There are a number of Information Technology projects that have been undertaken at KAA including the Point of Sale integration at Terminal 1A of JKIA where it installed Concessionaire Analyzer+ (CA+), a software solution at designated till point locations and seamlessly integrate it to SAP – ERP for billing purposes in October 2017; a clocking and time management solution for employee relationship management in both time attendance and employee expenditures on meal and shift basis in September 2017; a business process reengineering project in order to utilize and optimize the use of the SAP ERP system in 2017; and the establishment of a fully functional Tier 3 data center in Mombasa in March 2017 (KAA, 2018).

KAA has employed a systematic approach known as Operational Readiness Activation and Transition (ORAT) which is a comprehensive methodology and holistic approach that involves all airport stakeholders employed to ensure the operational readiness of a new airport or airport infrastructure aimed at enhancing transparency and collaboration among stakeholders (Omondi and Kimutai, 2018). Given that the forces of stakeholder values exist, balancing the influences from different stakeholders is critical to the alignment of mission values with the key stakeholders so as to ensure that all stakeholders' interests are addressed so as to reduce stakeholder related conflicts.

Statement of the Problem

According to Njenga (2014), many organisations in Kenya have been unable to establish appropriate control mechanisms for stakeholders since they have not delegated power in critical decision making; they have also had difficulties identifying and prioritizing stakeholders; there have been conflicting interests between the organisation and stakeholders; and the interpretation of the stakeholder engagement process has been a lopsided one. Public sector organisations have also had difficulties with stakeholders whenever they sought alternative proposals to those of the stakeholders themselves and the resultant delicate sensitization efforts; there were also many instances where some of external stakeholders from the public were unwilling to engage in the partnership with the organisation which called for a high level of persuasion and negotiation (Munene, 2013).

The implementation of ICT projects by public sector organisations in Kenya has been riddled with a number of challenges including: most ICT projects are initially funded by donors who do not always consult with the recipient organisation by carrying out a needs analysis; operational costs are usually met by the Government and cease once the project is completed; the budgets for these projects is usually inadequate; there is a lack of appropriate policies and master plans to guide investment which has led to a lack of coordination whenever more than one donor has gotten involved in a particular project, thereby compromising the effectiveness of implementation since it became difficult for concerned parties to focus their efforts; and many ICT applications have tended to focus on

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traditional administrative and functional transactions rather than on effective information processing and distribution within and without the organisation which has led to inefficient processes and issues of incompatibility between the applications in use and the modern hardware, and ultimately compromised implementation (Gichoya, 2005). This has made it imperative for these organisations to conduct proper stakeholder involvement to address these challenges.

Some of the key ICT indicators in Kenya as for January to March 2018 include: a mobile penetration (per 100 inhabitants) of 95.1%; 44.119 million mobile subscriptions; and 36 million data/internet subscriptions (CAK, 2018). Additionally, according to the Kenya National Bureau of Statistics (2019), the ICT sector grew by 11.4% in 2018 compared to 11% in 2017 on the back of the continued expansion of the telecommunications sub-sector particularly in mobile telephony and internet. In 2018, output of the ICT sector increased by 12.9 per cent to KSh 390.2 billion supported mainly by growth in the digital economy which includes; mobile telephony, uptake of e-commerce and penetration of internet. This demonstrates the high level of demand for ICT services, particularly in the public sector realm, and calls for determined strategies by these organisations to ensure proper service delivery including stakeholder involvement. Thus, this paper sought to explore how the stakeholder involvement strategies adopted by public sector organisations in Kenya has influenced the implementation of ICT projects. It will contribute to the existing body of knowledge by providing current perspectives as well as more specific focus on stakeholder involvement within the ICT realms unlike Mulwa (2015), Gatero (2011), Kiula (2014) and Ramadhan (2016) all of whom only focused on general factors affecting ICT implementation.

Research Objectives

The general objective of the study was to determine the role of stakeholders' involvement and implementation of information and communication technology projects in state corporations in Kenya. The specific objectives were;

- To determine the role of stakeholder identification on the implementation of ICT projects in state corporations in Kenya.
- To find out the role of stakeholder planning on the implementation of ICT projects in state corporations in Kenya.
- To establish the role of stakeholder engagement management on the implementation of ICT projects in state corporations in Kenya.
- To determine the role of stakeholder control on the implementation of ICT projects in state corporations in Kenya.

LITERATURE REVIEW

Stakeholder Theory

One of the key proponents of the stakeholder theory was Freeman (1984) who supposed that business be perceived as a set of relationships among groups who have an interest in the occurrences of the business. This theory promotes the treatment of all stakeholders with fairness, honesty and generosity so as to create synergy since the nature of the treatment by an organisation of its customers influences the attitudes and behaviour of its employees, and its treatment of the communities where it is operational influences the attitudes and behaviour of its suppliers and customers (Harrison, Freeman and Abreu, 2015). The stakeholder perspective compels managers to focus on broader measurements of the value created by their organisations from the perspective of the stakeholders who are creating it rather than on narrow economic measurements of performance (Harrison and Wicks, 2013). Freeman, Phillips and Sisodia (2018) add that the stakeholder theory is preoccupied with a broader value network that includes the importance of shared purpose and values which is an interconnected and interdependent system where each stakeholder is a means and an end since each contributes to

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collective flourishing and each must also benefit for the system to continue flourishing.

Agency Theory

The agency theory was founded by Jensen and Meckling (1976) and based on the existence of the agency problem which relates to the fact that when the priorities of the agents (managers) do not tally with those of the principals (owners) then there will be an agency conflict since the agents will act in their own self-interest which will be at odds with the interests of the principals (Panda and Leepsa, 2017). Therefore, the theory holds that incentives may be used to redirect the behaviour of the agent to match his interests with those of the principal so as to get rid of the agency conflict; as well as the utilisation of agency controls such as external and internal monitoring devices (Lopes, 2016). The agency theory assumes that the agent and the principal will both act in self-interest where the former seek personal benefits through higher individual incomes while the latter seek higher profit margins for their organisations. Given this assumption, it is apparent that the greatest challenge is getting the agent to drop the self-interest or act in a way that maximises their personal welfare while simultaneously maximising the welfare of the principal (Anker, 2012).

Resource-Based Theory

According to Madhani (2010), the resource-based theory (RBT) supposes that organisations gain superior performance and competitive advantage by acquiring difficult to imitate resources, that is, those that can neither be easily transferred nor purchased, that require an extended learning curve or major transformation of the organisation culture, or more likely to be unique to the organisation. RBT makes a couple of assumptions including: competing organisations may have different bundles of resources; and the differences in resources may persist (Barney, Corte, Sciarelli and Arikan, 2012). Kozlenkova, Samaha and Palmatier (2013) explain that, under RBT, if an organisation owns valuable resources that few other organisations have, and if those other organisations find it too expensive or difficult to imitate these resources, then these are bound to be sources of sustained competitive advantages for the organisation that controls them. These valuable resources can include human resources such as stakeholders provided they conform to the aforementioned attributes.

Shareholder Value Theory

This theory holds that organisational directors must act in the best interests of the organisation's present and future shareholders, and run the organisation in such a way as to maximize the welfare of the shareholders ahead of any other parties that may have interests in the organisation (Keay, 2010). This theory makes the following assumptions: human, social and environmental costs of operations need to be internalised only to the extent required by the law; self-interest is the main human motivator; and the organisation is fundamentally a connection of contracts with priority given to those contracts that have the greatest impact on the organisation's profitability (Saint and Tripathi, 2006).

The stakeholder value theory sets out to provide an alternative purpose of the firm to serve broader societal interests beyond economic value creation since business organizations depend on stakeholders for success given that the stakeholders have some stake in the organisations (Saint and Tripathi, 2006). The theory provides a mechanism for determining the societal value of an economic activity and the decision to accept it is based on the successful balance between the profit orientation and the provision of value to shareholders (Chilosi and Damtani, 2007). Indeed, for the corporation to continue to survive and remain profitable, is incumbent on the organisation's ability to fulfil its economic and social purpose of creating and distributing value or wealth so as to ensure the continued participation of each primary stakeholder in the organisation (Hillman and Keim, 2001).

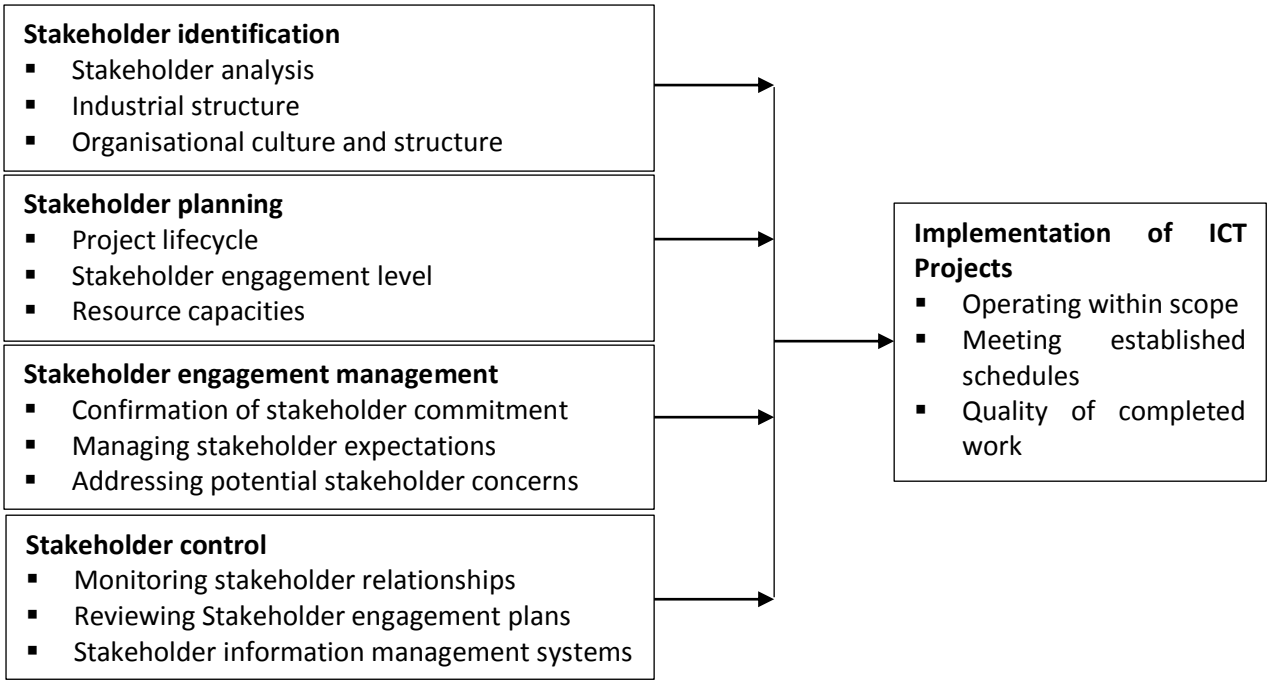

Figure 1: Conceptual Framework

Empirical Review

Kibera (2013) affirms that ICT projects need to develop a mechanism for enhancing stakeholder identification such as the establishment of the stakeholder list which should include the organisation's top management (so as to get their support and understanding); administrators; and technical staff. All these stakeholders should be involved so as to help mitigate the complexity of the ICT software projects through proper ownership in order to improve the likelihood of success.

The project team need to ensure that they conduct continuous monitoring so as to make corrections in the planning or execution of ICT projects since stakeholders can change their levels of power, legitimacy and urgency during the project lifecycle (Júnior *et al*., 2017). This information is critical for flexible stakeholder management given that the project management team need to alter their treatment of stakeholders in keeping with the evolving status in order to leverage their value to the fullest. Stakeholder planning and the project life cycle must operate together since the former is generally done as part of the process of analysing stakeholders during the planning phase of the project life cycle. This ensures that resource prioritization corresponds to the phases of the project life cycle, including which stakeholders to include (Patanakul, Iewwongcharoen and Milosevic, 2010). Effective project stakeholder planning calls for overlapping the various phases of the project lifecycle so as to save significant amounts of time and money, and provides the assurance that one project manager remains responsible for the entire project lifecycle so as to resolve conflicts as soon as possible (Archibald, *et al.*, 2012).

As part of the stakeholder engagement process organisations understand which stakeholders need to be involved in the project definition and planning process; the stakeholders that require project information that will lead to mitigation of their opposition; as well as the stakeholders that play key and relevant roles; all of which will ensure the confirmation of their commitment to the project objectives (Vorobjeff, 2018). Ultimately, this commitment will be assured by the project management team meeting or exceeding the performance requirements of stakeholders through

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a systematic process of integrating stakeholder priorities into the project implementation schedule. It is the duty of an organization's management, as one of the major internal stakeholders, to demonstrate their commitment to future project investments by adopting milestones and providing the resources required (Majava and Haapasalo, 2015). Stakeholder commitment is established as part of the overall corporate social responsibility by an organisation and guided by societal expectations regarding integrity, responsibility and organisational legitimacy (Olkkonen, 2015).

Organisations need to control stakeholder engagements by monitoring the risk tolerance of each stakeholder, the levels of support, and project expectations which will then inform appropriate communication strategies within the stakeholder monitoring report so as to minimise anxiety on the part of the warier stakeholders (Waligo, Clarke and Hawkins, 2013). Larger organisations which have more stakeholders tend to also have complex stakeholder relationships which need to be controlled through a systematic process of harmonizing and coordination of their goals and interests which may be intertwined or even conflicted (Miočić, Razović and Klarin, 2016). This process can also be undertaken under the banner of participatory monitoring and evaluation (PMandE) which involves the identification of internal stakeholders as well as outside facilitators to conduct pre-project, implementation and post-project MandE (Tengan and Aigbavboa, 2017). Further, MandE systems ensure the allocation of all the necessary resources in guiding the best way of achieving results by collecting baseline information and scaling up the quality of implementation and improving development results thereby addressing the concerns of all stakeholders (Shihemi, 2016).

According to Ogunberu, Akintelu and Olaposi (2018), organisations in the telecommunications sector are becoming increasingly aware of the importance of appropriate project scope definition due to increasing competition and dynamism as well as the need for better cost savings and maximisation of profits. This is ascertained through the formulation of detailed scope statement which includes adequate details to ensure better coordination, organisation and relationship building given the fact that many of the organisations in the sector are large and complex by factoring in the perspectives of multi-layered stakeholders such as functional heads, heads of IT infrastructure, administrative personnel, customers and consumers of the end products. Dekkers and Forselius (2010) identified a twelve step scope management process that ensures the recovery of underperforming ICT projects that included: retaining the scope manager and adopting a customer-centric approach; dividing the program into sub-projects; using the scope manager to perform early function points for each sub-project and estimating total size; scope manager should collaborate with the customer to determine and analyse quality requirements; the customer then issues a request for a proposal; customer then selects a supplier; specification requirements are then developed; the scope manager then develops product baselines; the scope manager then works out changes to be made and evaluates the cost implications; scope manager then quantifies the progress; project finishes and supplier is paid by the customer; and data on the experience is collected and stored.

METHODOLOGY

This study applied a descriptive research design. The study focused on a target population of 128 staff working within the within the Nairobi offices of the KAA Head OFfice. These are the staff who had had direct or indirect interaction with the stakeholder involvement initiatives. The study used census survey where all the elements of the entire population for small populations of 200 or less were used there was no sampling. This eliminated sampling error and provided data on all the individuals in the population. Primary data for descriptive studies was collected using observation or direct communication with the participants in one form or another or through personal

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interviews. The study used structured questionnaires. The study used self-administered questionnaires on 128 respondents from the target population. The study used a pilot test of 10 individuals from a focus group that was representative of the target population, as per the recommendations of Mugenda and Mugenda (2003). This study used Cronbach's alpha of 0.7 as recommended by Tavakol and Dennick (2011).

The study used a five point Likert scale in keeping with the recommendations of Joshi, Kale, Chandel and Pal (2015) to analyse the responses from the data collected along with two measures of central tendency, mean and standard deviation, to describe the data. The collected data was analysed using both descriptive and inferential statistics with the aid of SPSS. The results were then presented using tables and figures. The analysis used a multiple regression model to capture the variables of the study as follows:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Where;

Y = The dependent variable (Implementation of ICT projects)

X_1 = the first independent variable (Stakeholder Identification)

X_2 = the second independent variable (Stakeholder Planning)

X_3 = the third independent variable (Stakeholder Engagement Management)

X_4 = the fourth independent variable (Stakeholder Control)

E = the error term

β_0 = the constant term

According to the formula, Y is determined by changes in X_1, X_2, X_3 and X_4. Beta coefficient refers to how closely a unit change in any of the Xs influences Y. The constant refers to the value of Y when X is zero.

FINDINGS AND DISCUSSION

Effectiveness of Stakeholder Involvement Initiatives

The distribution of responses relating to the issue of the effectiveness of stakeholder involvement initiatives of the participants at KAA is illustrated in figure 1 below. Accordingly, out of the 90 participants, 61 agreed, 20 were uncertain, 5 disagreed and 4 strongly agreed, representing 67.8%, 22.2%, 5.6% and 4.4%, respectively. This was an indicator that the vast majority of participants were in agreement that stakeholder involvement initiatives at KAA have been effective. This contradicted the findings of Noah (2013) that there is a low level of stakeholder involvement in strategic change in organisations in Kenya and that there is a clear disconnect between the perception of stakeholders regarding the level of involvement and that of management where the latter feel that there is an adequate level of inclusion of stakeholders while the former disagree.

Out of 90 participants, 7 strongly disagreed, 29 agreed and 54 strongly disagreed, representing 7.8%, 32.2%, and 60.0%, respectively. This indicated that the vast majority of respondents were in strong disagreement about whether project implementation had been prioritised by KAA. This was consistent with Wachira, Kidombo and Kinyua (2015) who found that many organisations in Kenya are constrained by a lack managerial support for the successful implementation of projects.

Role of Stakeholder Identification in implementation of ICT projects

The descriptive statistics pertaining to stakeholder identification were illustrated in table 1 below. According to the results, 88.8% of the respondents either agreed or strongly agreed that stakeholder listing plays a critical role in the implementation of ICT projects at KAA. This was consistent with Kibera (2013) who found that ICT projects need to develop a mechanism for enhancing stakeholder identification such as the establishment of the stakeholder list which should include the

organisation's top management (so as to get their support and understanding); administrators; and technical staff. Additionally, the results demonstrated that 49% of the respondents either agreed or strongly agreed that the organisation uses stakeholder mapping to aid in stakeholder identification while 37% were uncertain about this. This tallied with Missonier and Loufrani-Fedida (2014) who maintained that stakeholder analysis in ICT projects involves the identification of stakeholders and assigning roles to them through a process of stakeholder mapping on the basis of familiarity with particular issues. The results also indicated that 72.2% of the respondents were in agreement that the industrial structure has affected how the organisation identifies stakeholders. This is congruent with Kelanti (2016) who found that industrial structure influences how organisations respond to operational challenges for ICT projects since the nature of competitors, for instance, compels project managers to identify stakeholders such as sponsors with extensive knowledge in dealing with competitors or even partners who can bring on board strategies for making the organisation more competitive in the design and implementation of projects.

The table also showed that 90% of the respondents agreed that ICT projects in the organisation require extensive collaboration and communication with external partners which tallies with Kelanti (2016) who established that ICT software projects are characterised by knowledge intensive processes which require extensive collaboration and communication between the organisation and external partners in technical teams which are assembled dynamically and spontaneously. Further, the results determined that 84.4% of the respondents agreed that the organisational culture and structure has influenced the implementation of ICT projects which is consistent with Butt *et al.* (2016) when he discovered that the project cultural structure determines the stakeholder management policies employed by organisations and affect the nature of the relationships with stakeholders. Lastly, according to the results, 74.4% of the respondents agreed that the project cultural structure has affected the organisation's stakeholder management policies, in keeping with Butt *et al.* (2016).

Table 1: ***Descriptive Statistics of Stakeholder Identification***

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Stakeholder listing plays a critical role in the implementation of ICT projects		2.2%	8.9%	44.4%	44.4%
The organisation uses stakeholder mapping to aid in stakeholder identification	8.9%	5.6%	36.7%	45.6%	3.3%
The industrial structure has affected how the organisation identifies stakeholders	2.2%	11.1%	14.4%	37.8%	34.4%
ICT projects in the organisation require extensive collaboration and communication with external partners		2.2%	7.8%	37.8%	52.2%
The organisational culture and structure has influenced the implementation of ICT projects		3.3%	12.2%	51.1%	33.3%
The project cultural structure has affected the organisation's stakeholder management policies	1.1%	5.6%	18.9%	43.3%	31.1%

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Role of Stakeholder Planning in implementation of ICT projects

The distribution of responses relating to the descriptive statistics of stakeholder planning are illustrated in table 2 below. The results indicated that "the organisation's stakeholder planning had been hampered by high levels of bureaucracy" had the highest mean at 4.3222 indicating that most respondents were in agreement with this. This was consistent with Li *et al.* (2016) who found that many public sector projects were constrained by high levels of bureaucracy in their efforts to engage effectively with stakeholders since this tends to slow down the decision making process for the top management of the organisations. The results also showed that "government interference has affected the stakeholder planning process in the organisation" had the next highest mean of 3.7556 showing that a high level of agreement by the respondents with this. This tallied with Kajoba (2016) who determined that there are other sectors such as the oil exploration and production where political interferences by the national governments have caused disquiet among local community stakeholders who feel disenfranchised by allocations of oil deliveries to other regions mainly because of lack of adequate stakeholder involvement by locals in the service delivery planning process. "The organisation uses overlapping of various phases of the project lifecycle to improve stakeholder planning" was the next factor with a mean of 3.5000 also indicating that positive affirmation by the majority of respondents.

The results also showed that "resource constraints have pushed the organisation to collaborate with other ICT organisations" had a mean of 3.4333 indicating that most of the respondents were in agreement with this. Additionally, the results showed that "the organisation has ensured that stakeholders are involved during the entirety of the ICT projects" had a mean of 3.3667 also indicating a high level of acceptance by the respondents. This was in agreement with Junior *et al.* (2017) who found that the project team need to ensure that they conduct continuous monitoring so as to make corrections in the planning or execution of ICT projects since stakeholders can change their levels of power, legitimacy and urgency during the project lifecycle. Lastly, "the organisation engages in strategic capacity planning meetings to assure its resource capacities" had a mean of 3.2889 which indicated that most of the respondents were in agreement with this. Given that all the standard deviations were so low, it was clear that all the respondents were concentrated tightly around the average responses indicating a low variation in the responses.

Table 2: ***Descriptive Statistics of Stakeholder Planning***

	Mean	Std. Deviation
The organisation has ensured that stakeholders are involved during the entirety of the ICT projects	3.3667	1.12629
The organisation has improved stakeholder planning by overlapping various phases of the project lifecycle	3.5000	.79676
The organisation's stakeholder planning has been hampered by high levels of bureaucracy	4.3222	.93410
Government interference has affected the stakeholder planning process in the organisation	3.7556	1.25699
Resource constraints have pushed the organisation to collaborate with other ICT organisations	3.4333	1.13226
The organisation engages in strategic capacity planning meetings to assure its resource capacities	3.2889	.90249

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Role of Stakeholder Engagement Management in implementation of ICT projects

The distribution of respondents pertaining to the descriptive statistics of stakeholder engagement management are shown in table 3. The results indicated that 65.6% of the respondents agreed that the organisation understands the requirements and roles that each stakeholder can play in the organisation which was consistent with Vorobjeff (2018) who determined that as part of the stakeholder engagement process organisations understand which stakeholders need to be involved in the project definition and planning process; the stakeholders that require project information that will lead to mitigation of their opposition; as well as the stakeholders that play key and relevant roles; all of which would ensure the confirmation of their commitment to the project objectives. Further, 40% of the respondents were uncertain that the organisation has been able to exceed the performance expectations of stakeholders. 47.8% agreed while the rest were either in disagreement or uncertain that the organisation has established the use of corporate social responsibility as a strategy for meeting stakeholder expectation indicating. This contradicted Olkkonen (2015) who determined that the demands and expectations of stakeholders are critical drivers of the actions of organisations including corporate social responsibility (CSR) which informs the stakeholder engagement process since the need to comply with societal expectations, which include stakeholders, precludes the organisation from behaving irresponsibly.

Additionally, the results indicated that 64.4% of the respondents either disagreed or were uncertain that the organisation classifies stakeholders according to their characteristics in order to improve the management of their expectations. According to the results, 57.7% of the respondents were with in disagreement or uncertain with the assertion that the organisation has been studying how ICT is spoken in the planning phase so as to better understand potential stakeholder concerns. This contradicted Malin and Karin (2014) who found that the managers of public sector ICT projects ensure that they are politically correct by studying how ICT is spoken in the planning phase in order to improve their comprehension of stakeholders' concerns relating to the technological designs, products and services and how they can contribute to the projects since their insights will be critical towards the attainment of sustainability. Lastly, the results showed that 84.4% of the respondents agreed that the complexity of ICT projects has pushed the organisation to hire consultants to improve its ability to address potential stakeholder concerns. This was consistent with Zheng (2011) who revealed that the technical complexity of many ICT projects compels organisations to hire professionals to work on them and places on them the requirement that they understand the issues of beneficiaries and stakeholders, and demonstrate their management of these concerns through a participatory process.

Table 3: ***Descriptive Statistics of Stakeholder Engagement Management***

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
The organisation understands the requirements and roles that each stakeholder can play in the organisation	1.1%	14.4%	18.9%	48.9%	16.7%
The organisation has been able to exceed the performance expectations of stakeholders	4.4%	20.0%	40.0%	34.4%	1.1%
The organisation has established the use of corporate social responsibility as a strategy for meeting stakeholder expectations		26.7%	25.6%	42.2%	5.6%

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The organisation classifies stakeholders according to their characteristics in order to improve the management of their expectations	1.1%	40.0%	23.3%	24.4%	11.1%
The organisation has been studying how ICT is spoken in the planning phase so as to better understand potential stakeholder concerns		14.4%	43.3%	30.0%	12.2%
The complexity of ICT projects has pushed the organisation to hire consultants to improve its ability to address potential stakeholder concerns		3.3%	12.2%	42.2%	42.2%

Role of Stakeholder Control in implementation of ICT projects

The results relating to the descriptive questions on stakeholder control are illustrated in table 4. According to the results, "the organisation has been monitoring the risk tolerance of each stakeholder, the levels of support, and project expectations so as to improve stakeholder control" had a mean of 3.3667 indicating agreement from most of the respondents. This was consistent with Waligo *et al.* (2013) who found that organisations need to control stakeholder engagements by monitoring the risk tolerance of each stakeholder, the levels of support, and project expectations which will then inform appropriate communication strategies within the stakeholder monitoring report so as to minimise anxiety on the part of the warier stakeholders. Further, "the organisation has applied the use of participatory monitoring and evaluation as a means of improving stakeholder control" had a mean of 2.7556 indicating a moderately positive level of acceptance by the respondents. This is in agreement with Tengan and Aigbavboa (2017) who determined that the process of stakeholder control can also be undertaken under the banner of participatory monitoring and evaluation (PM&E) which involves the identification of internal stakeholders as well as outside facilitators to conduct pre-project, implementation and post-project M&E. "The organisation has been reviewing stakeholder engagement plans regularly upon necessity" had a mean of 3.1667 indicating agreement from the majority of respondents. This was consistent with Stosich and Bae (2018) who determined that public sector projects involve many stakeholders who require concerted efforts by the management team to conduct effective stakeholder engagement and getting the necessary feedback and making amendments to the stakeholder engagement plan in regular intervals upon necessity.

The results also indicated that "government and NGO interactions have been used to inform changes to stakeholder engagement plans" had a mean of 3.3556 also reflecting that most of the respondents were in agreement with this. This tallied with Rawhouser *et al*. (2018) who found that projects emphasize the involvement of stakeholders from government and non-governmental organisations (NGOs) since they are perceived to have interests that are better aligned with the public good and long-term sustainability; thus, the feedback they provide in engagements informs a review of the stakeholder engagement plan in order to establish a standard that is representative of multiple interests. Further, "the organisation has been using its information management systems to incorporate external stakeholders" had a mean of 3.6889 indicating that most of the respondents endorsed this aspect of stakeholder control. This was consistent with Mishra and Mishra (2013) who revealed that stakeholder information management systems have increasingly been focusing on the external stakeholders who are able to get involved in decision making at the managerial level by ensuring that these individuals are prioritised in the electronic databases of the organisation. Lastly, "the organisation has been using its information management systems as digital stores of various information relating to its stakeholders" had a

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mean of 3.7222 reflecting a stronger endorsement by the respondents for this aspect of stakeholder control. This was in agreement with Pandi-Perumal *et al.* (2015) who found that organisations seek to improve their control over stakeholder engagement by utilising information management systems which serve as automated repositories of information pertaining to their identity, interests, concerns, networks, critical documents such as project charter, contracts, electronic communication channels, status reports, just to name a few. Once again all the standard deviations were small in value reflecting little variation in the responses relative to the mean.

Table 4: Descriptive Statistics of Stakeholder Control

	Mean	Std. Deviation
The organisation has been monitoring the risk tolerance of each stakeholder, the levels of support, and project expectations so as to improve stakeholder control	3.3667	.98813
The organisation has applied the use of participatory monitoring and evaluation as a means of improving stakeholder control	2.7556	.92786
The organisation has been reviewing stakeholder engagement plans regularly upon necessity	3.1667	.90256
Government and NGO interactions have been used to inform changes to stakeholder engagement plans	3.3556	1.05267
The organisation has been using its information management systems to incorporate external stakeholders	3.6889	.82984
The organisation has been using its information management systems as digital stores of various information relating to its stakeholders	3.7222	.76478

Role of Stakeholders' involvement in Implementation of ICT Projects

The findings pertaining to the implementation of ICT projects are shown in table 5. The findings indicated agreement from 77.7% of the respondents that the organisation has formulated detailed scope statements which includes adequate details to ensure better coordination, organisation and relationship building. This was consistent with Ogunberu, *et al.* (2018) who determined that organisations in the telecommunications sector are becoming increasingly aware of the importance of appropriate project scope definition due to increasing competition and dynamism as well as the need for better cost savings and maximisation of profits. This is ascertained through the formulation of detailed scope statement which includes adequate details to ensure better coordination, organisation and relationship building. Further, there was a 51.1% level of disagreement or uncertainty from the respondents about the organisation having a scope manager who is responsible for the recovery of underperforming ICT projects. This contradicted Dekkers and Forselius (2010) who identified a twelve step scope management process that ensures the recovery of underperforming ICT projects that included: retaining the scope manager and adopting a customer-centric approach. The results also showed that 48.9% of the respondents were uncertain while 24.4% disagreed that the organisation carries out project schedule management during software project estimation where provisions are added to prevent risks by using a simulation model which factors into consideration all project uncertainties. This was not consistent with Zhang *et al.* (2015) who determined that project schedule management of ICT projects is typically done during software project estimation where buffers are added to prevent risks by using a simulation model which factors into consideration all project uncertainties and breaking it down into various stages as well as the budget and quality expectations.

Additionally, 60% of the respondents agreed that the organisation has provided stable funding which

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has ensured appropriate resource allocation for all project activities which was consistent with Riposo *et al*. (2014) who found that project scheduling can be improved through a number of ways including: resource allocation – through provision of stable funding and adequate test funds for hardware modelling and simulation. 77.7% of the respondents agreed that the organisation has ensured improved quality of its ICT projects by aligning them to the business demands. This tallied with Wieczorek *et al.* (2014) who found that the attainment of quality of completed work in ICT projects is dependent on the alignment of the ICT project with business demands in three layers – the strategic; tactical; and operational. Lastly, according to the results, 73.3% of the respondents agreed that the organisation conducts a high level of M&E in order to ensure that its ICT projects meet the required quality standards upon completion. This was congruent with Mong'are (2017) who determined that ICT projects in commercial banks require a high level of monitoring and evaluation in order for them to achieve the expected quality standards upon completion.

Table 5: ***Descriptive Statistics of Implementation of ICT Projects***

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
The organisation has formulated detailed scope statements which includes adequate details to ensure better coordination, organisation and relationship building		4.4%	17.8%	64.4%	13.3%
The organisation has a scope manager who is responsible for the recovery of underperforming ICT projects	3.3%	18.9%	28.9%	27.8%	21.1%
The organisation carries out project schedule management during software project estimation where provisions are added to prevent risks by using a simulation model which factors into consideration all project uncertainties	1.1%	23.3%	48.9%	23.3%	3.3%
The organisation has provided stable funding which has ensured appropriate resource allocation for all project activities	2.2%	4.4%	33.3%	42.2%	17.8%
The organisation has ensured improved quality of its ICT projects by aligning them to the business demands		1.1%	21.1%	55.6%	22.2%
The organisation conducts a high level of M&E in order to ensure that its ICT projects meet the required quality standards upon completion	1.1%	8.9%	16.7%	60.0%	13.3%

Inferential Statistics

Table 6: Pearson Correlation Coefficients

		Stakeholder Identification	Stakeholder Planning	Stakeholder Engagement Management	Stakeholder Control	Implementation of ICT Projects
Stakeholder Identification	Pearson Correlation Sig. (2-tailed)	1				

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Stakeholder Planning	Pearson Correlation	.263*	1			
	Sig. (2-tailed)	.012				
Stakeholder Engagement Management	Pearson Correlation	-.056	.098	1		
	Sig. (2-tailed)	.602	.356			
Stakeholder Control	Pearson Correlation	.103	.011	.534**	1	
	Sig. (2-tailed)	.333	.920	.000		
Implementation of ICT Projects	Pearson Correlation	.701	.786	.858*	.888**	1
	Sig. (2-tailed)	.006	.029	.014	.001	

*. Correlation is significant at the 0.05 level (2-tailed).

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

Table 7: Multiple Regression Statistics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901[a]	.811	.722	.48767

a. Predictors: (Constant), Stakeholder Control, Stakeholder Planning, Stakeholder Identification, Stakeholder Engagement Management

Table 8: *ANOVA Statistics*

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.885	4	.971	4.084	.004[b]
	Residual	20.215	85	.238		
	Total	24.100	89			

a. Dependent Variable: Implementation of ICT projects

b. Predictors: (Constant), Stakeholder Control, Stakeholder Planning, Stakeholder Identification, Stakeholder Engagement Management

Beta Coefficients

According to Peterson and Brown (2005), Beta Coefficients refer to unknown constants that are estimated from the data, which are attached to given predictors or independent variables. The beta coefficients of the study were illustrated in table 9. The values of the constant and coefficients enabled the generation of the multiple regression model as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

$$= 1.876 + 0.047X_1 + 0.143X_2 + 0.088X_3 + 0.256X_4 + \varepsilon$$

According to the equation, taking all the independent variables to be zero (Stakeholder Identification, Stakeholder Planning, Stakeholder Engagement Management and Stakeholder Control), Implementation of ICT Projects would be a constant equivalent to 1.876. The data analysis of the findings also showed that a unit increase in Stakeholder Identification would lead to a 0.047 increase in Implementation of ICT Project when all other independent variables are held constant; a unit increase in Stakeholder Planning would lead to a 0.143 increase in Implementation of ICT Projects

when all other independent variables are held constant; a unit increase in Stakeholder Engagement Management would lead to a 0.088 increase in Implementation of ICT Projects when all other independent variables are held constant; finally, a unit increase in Stakeholder Control will lead to a 0.256 increase in Implementation of ICT Projects when all other independent variables are held constant. Lastly, the p-values for all the variables are all below 0.05 which indicates that they are all statistically significant.

Table 9: *Beta Coefficients*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.876	.553		3.391	.001
	Stakeholder Identification	.047	.093	.054	.510	.012
	Stakeholder Planning	.143	.093	.160	1.536	.028
	Stakeholder Engagement Management	.088	.119	.088	.736	.004
	Stakeholder Control	.256	.104	.294	2.455	.016

a. Dependent Variable: Implementation of ICT projects

Discussion

According to the results relating to the descriptive statistics of stakeholder identification, the majority of the respondents were in agreement with all the examined aspects of stakeholder identification, reflecting the success with which KAA had implemented stakeholder identification. However, stakeholder mapping only received a moderate endorsement showing that it has not been incorporated as a strategy for stakeholder identification. Additionally, a review of the descriptive statistics of stakeholder planning reveals stakeholder planning at KAA has been hampered by high levels of bureaucracy and Government interference. In response, the organisation has used overlapping of various phases of the project lifecycle, collaborating with other ICT organisations, involving stakeholders throughout the project lifecycle and engaging in capacity planning meetings.

The results of the descriptive statistics of stakeholder engagement management indicated that although the organisation understands the requirements and roles that each stakeholder can play and the complexity of ICT projects has pushed it to hire consultants, it has been unable to: exceed the performance expectations of stakeholders; establish the use of CSR as a strategy for meeting stakeholder expectations; classify stakeholders according to their characteristics in order to improve the management of their expectations; and study how ICT is spoken in the planning phase so as to better understand potential stakeholder concerns. Further, an assessment of the descriptive statistics of stakeholder control indicates that there was a strong positive agreement amongst the respondents that the organisation had implemented all the aspects of stakeholder control under review except participatory monitoring and evaluation, which only received a moderately positive endorsement. This is illustrative of the fact that the organisation has focused a lot of attention on stakeholder control but more needs to be done to incorporate participatory M&E.

Finally, the descriptive statistics of implementation of ICT projects showed that most of the respondents we are in agreement that the organisation had ensured proper implementation of

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ICT projects as reflected by strong endorsements for detailed scope statements and scope manager; provision of stable funding; alignment of ICT projects to business needs; and the application of high level monitoring and evaluation. However, there was a lack of affirmation from most of the respondents regarding whether the organisation carries out project schedule management during software project estimation. This is an indicator that project schedule management has not been given the due recognition as a priority for KAA.

The findings of the correlation analysis showed that Stakeholder Control had the strongest positive correlation with Implementation of ICT Projects, followed by Stakeholder Engagement Management, Stakeholder Planning and Stakeholder Identification, respectively. This indicates that Stakeholder Control is the most influential factor on the implementation of ICT projects. The high value of R^2 for the multiple regression model indicates that the model has a strong relationship with the response variable which is Implementation of ICT Projects and can, thus, be used to confidently predict behaviour of the response variable.

CONCLUSIONS AND RECOMMENDATIONS

The general conclusion of the study ascertained the impact of the involvement of stakeholder in implementation of information and communication technology projects in state corporations.

The organisation had focused a lot of attention on stakeholder identification as evidenced by the endorsements from the respondents. However, one aspect that stills needs a bit of work is the incorporation of stakeholder mapping as a tool for identifying stakeholders. Further, it can be surmised that stakeholder planning at KAA has been enhanced by ensuring that stakeholders are involved during the entirety of the ICT projects, has improved stakeholder planning by overlapping various phases of the project lifecycle, collaboration with other ICT organisations, and engaging in strategic capacity planning meetings. However, the stakeholder planning process at the organisation has been hampered by a high level of bureaucracy and Government interference.

The organisation struggled to manage its stakeholder engagement as evidenced by its inability to exceed the performance expectations of stakeholders, the lack of established use of CSR as a strategy for meeting stakeholder expectation, the inability to classify stakeholders according to their characteristics in order to improve the management of their expectations, and failure to study how ICT is spoken in the planning phase so as to better understand potential stakeholder concerns. In this regard the organisation has only been able to understand the requirements and roles that each stakeholder can play, and the hiring of consultants to improve its ability to address potential stakeholder concerns.

The most effective measures of implementation of ICT projects at KAA included: formulating detailed scope statements which include adequate details to ensure better coordination, organisation and relationship building; providing stable funding which has ensured appropriate resource allocation for all project activities; aligning ICT projects to the business demands so as to improve their quality; and conducting a high level of M&E in order to ensure that its ICT projects meet the required quality standards upon completion. However, the organisation has failed to carry out project schedule management during software project estimation as well as recruiting a scope manager who is responsible for the recovery of underperforming ICT projects.

The organisation had conducted a number of measures to ensure stakeholder control including: monitoring the risk tolerance of each stakeholder, the levels of support, and project expectations; reviewing stakeholder engagement plans regularly upon necessity; interacting with Government and NGOs to inform changes to stakeholder engagement plans; using its information management systems to incorporate external stakeholders; and using its information management systems as digital stores of various

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information relating to its stakeholders. However, not enough has been done by the organisation to use participatory M&E as a means of improving stakeholder control.

The study recommended that organisation should embark on initiatives aimed at reducing the level of bureaucracy by reviewing the organisation structure so as to minimise the layers between the top management and the subordinate staff. For instance, it can decentralise its operations by creating semiautonomous business units. Additionally, it should lobby the Government to determine ways of reducing the level of interference from Government officials such as the recruitment of powerful project sponsors who can protect the organisations from high level of government interference.

The organisation should formulate a stakeholder classification matrix that includes power and interest; power and influence; influence and impact; and power, urgency and legitimacy. This will inform the organisation on which stakeholders to satisfy, which ones to manage closely, which ones to monitor, and which ones to keep informed. The organisation should also benchmark with other airport authorities in industrialised countries to establish how ICT is communicated in these organisations.

The organisation should also develop measures to improve participatory monitoring and evaluation such as: supporting the community partners with the information and tools required to identify needs, set priorities and track progress of its projects; promote organisational learning by enabling employees and partners to continuously monitor and improve its projects; and promote accountability and transparency within the organisation and among partners and investors. Finally, the organisation should identify software for effective project schedule management by benchmarking with other organisations in the industry; and it should also look into the feasibility of recruiting a scope manager to handle the scope management.

The organisation should undertake fact finding initiatives such as participatory forums where the organisation can try to establish clarity regarding the performance expectations of all key stakeholders so as to review the project implementation priorities to reflect these expectations. It should also conduct research on the most feasible ways of incorporating corporate social responsibility into its operations so as to harness its full potential.

Areas of Further Research

More work needs to be done on the influence of stakeholder involvement on the implementation of projects in Kenya. Additionally, researchers and scholars should also divert their attention to the implementation of ICT projects as a dependent variable since not enough has been done on it.

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