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**INFORMATION AND COMMUNICATION TECHNOLOGY INTEGRATION AND PERFORMANCE OF THE
INDEPENDENT ELECTORAL AND BOUNDARIES COMMISSION KENYA**

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ABSTRACT

The volatile political climate in Kenya was significantly exacerbated by several electoral frauds and transmission delays of the presidential results during this election. The Kriegler Commission suggested the adoption of technology in the electoral process in order to offer effective, transparent, auditable, and credible outcomes, among other significant reforms. The IEBC which was established in 2011 oversaw the general elections of 2013 and 2017. However, in both instances, the IEBC was questioned on how it conducted the elections. Kenya's Supreme Court decided that the latter round of presidential election results was invalid due to vote irregularities. The legitimacy of the official election results, which are frequently rejected, have consequently been at the center of Kenya's electoral crisis. This has eroded public confidence in the digital technologies at IEBC's. There are significant obstacles to integration of ICT in election process due to budgeting and financial costs, lack of sufficient specialized knowledge, technological drawbacks, low levels of awareness, public employee resistance, information security, laws, necessary technology, and a lack of faith in e-Government. These factors are broadly categorized into technology characteristics, organizational, and individual factors. To this end, this study sought to determine the enablers and impact of ICT integration on performance of IEBC. Diffusion of innovation theory and the technology-organization environment model served as the study's foundations. For this study, a survey design was selected. The target population comprised of 373 permanent employees working at the IEBC headquarters as well as 200 politicians. Purposive, convenience and simple stratified random sampling were applied to select a sample size of 236 respondents. The findings of this study revealed that organizational-level factors, technology characteristics and individual-level factors positively and significantly influence performance of IEBC. This study recommended IEBC to pay particular attention to organizational-level factors that affect ICT integration as they ultimately affect its performance. In this regard, there is need for IEBC to ensure that it is well-equipped to use various innovative aspects, have a high availability of appropriate ICT equipment in the organization, utilize prior expertise in relevant ICT domains, conduct employee training to create a greater understanding, positive attitude, more usage, and diversified use of innovation, and provide adequate training and aiding staff when they encounter difficulties utilizing different technologies. Additionally, there is need to provide proper management support for the adoption and usage of various technologies, avail individual workers with incentives like recognition and awards for innovation adoption, and train them to promote effective completion of specific task performance.

Key Words: Technology, ICT Integration, Organizational-Level Factors, Individual-Level Factors, IEBC

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INTRODUCTION

Every aspect of life has been affected by technological advancements; in particular, information and communication technology skills are now commonplace in most economic, social, and governmental interactions (Noor-Ul-Amin, 2013). Both the public and private sectors have made tremendous attempts to use ICT to enhance service delivery. The growing digital revolution has contributed to the push for ICT implementation. Generally speaking, adopting cutting-edge digital technologies is a pressing matter. According to Smart (2020), "old, traditional organizations are feeling the need to display agility across the entire organization to stay up with the "born agile" disrupters who are not held back by legacy ways of functioning." Without utilizing digital technologies, it is difficult for organizations in both the public and private sectors to compete at greater levels. There is pressure on everyone to appear flexible because nobody wants to fall behind in the digital transition. As a result, governments and companies scramble to implement diverse technological capabilities in their activities and procedures (Allam, 2016).

While the implementation of ICT technologies in the private sector is near maturity, the same is still in the early development stages in public service environments. In particular, governments worldwide are yet to digitalize their functions fully. According to EGDI, the global EGDI score was 0.6 in 2020 (Johnson, 2021). Africa lags with only 0.39. EGDI measures the level of e-government adoption in UN member states. With an EGDI of 0.6, the world is far from fully realizing the benefits of ICT in government functions. It is even worse for African countries, where the adoption rate is less than 40%. Kenya has an EGDI of 0.4186 and ranks 119 out of 193 countries (Imbamba & Kimile, 2017). Although Kenya has a better EGDI than Africa's average, it still performs worse than the global average. Additionally, e-government functions are concentrated in select services, including applying for a driver's license, submitting income tax, business registration, and other such services;

beyond these, ICT has yet to fully develop roots in intragovernmental functions.

The actual productivity of an organization is assessed against its planned goals and objectives to determine its organizational performance (Upadhaya, Munir, & Blount, 2014). The idea that an organization is made up of valuable resources, such as people, physical assets, and capital assets, which are employed to accomplish a common objective, determines how well it performs. De Waal and Van Der Heijden (2015; Morrisson, 2023) note that, generally speaking, the competence of an institution to react to challenges and opportunities in an efficient and productive manner while fully aware of the strengths and flaws at hand determines the organization's success.

Research into the factors influencing the use of digital technologies by governments has been intense, with the existing literature pointing out various enablers and obstacles. For instance, budgeting and financial costs, lack of sufficient specialized knowledge, technological drawbacks, low levels of awareness, public employee resistance, information security, laws, necessary technology, and a lack of faith in e-Government were identified by Al-Shboul *et al.*, (2014) as the main factors influencing government integration of ICT technologies. In another study, Al-Wazir and Zheng (2014) found that the lack of proper infrastructure, low literacy levels, and sluggish economic development affected the use of ICT in Yemen. In Kenya, Omwenga (2016) identified several factors affecting digital technologies' use, including funding, governmental support, the level of awareness, and various technological factors. These factors can be broadly categorized into technology characteristics, organizational, and individual factors. Technology characteristics include relative advantage, complexity, compatibility, and observability of the innovation's outcomes (Mwambia, 2015). Organizational factors include organizational structure, climate, and culture; these factors are influenced by training, management support, incentives, and

organizational infrastructure. Finally, individual-level factors include factors like age, educational level, gender, technical experience, and attitude towards technology (Mwambia, 2015).

The Kenyan Constitution established IEBC as an independent regulatory body in 2011. Referenda, elections for any elected body or office created by the Constitution, and any other elections as required by a Parliamentary Act are all handled by the Commission. It was established under a clause in the IEBC Act of 2010 and the 2010 Constitution. Its duties include the ongoing enrollment of voters as well as updating the voter's list, defining constituencies and wards, regulating political party procedures, settling electoral disagreements, registering applicants for elections, educating voters, facilitating the observation, surveillance, as well as appraisal of elections, regulating the amount of funds spent by a political candidate in relation to any election, and developing a co-operative electoral system (IEBC, 2022).

On March 4, 2013, the IEBC coordinated the general election. The Kenyan Supreme Court received a petition regarding the presidential election. The IEBC's management of the 2017 general election in Kenya also came under question. Due to vote irregularities, Kenya's Supreme Court ruled that the first Presidential election results were illegal. A Commissioner also stated in a statement that the second Presidential election would not be free and fair. Being the sole body responsible for administration of elections in Kenya but has hitherto faced integrity, cost, transparency, elections malpractices, security and public confidence, there is need to examine the ICT integration enablers and how they influence its performance.

In Kenya, the IEBC has used a variety of election technology. The use of technology can increase the effectiveness and efficiency of the electoral process. The IEBC has utilized four different types of election technology since the general elections in 2013 (Kigwiru, 2019). In the just-concluded general elections, the Commission deployed BVR, CRS, EVID,

and Results RTS. All these technologies were integrated into a single system dubbed KIEMS.

Statement of the Problem

For democracy to survive there must be a functioning electoral system in every nation. Yet, it has continued to be difficult to strengthen Kenya's democracy through the conduct of fair elections. The history of Kenya's democratic elections shows that elections frequently stoked such resentment that it has occasionally endangered the nation's peace and stability, as in the cases of the 2007 and 2017 presidential elections (Mwangi, 2017). The IEBC oversaw the general election on March 4, 2013. A petition concerning the presidential election was submitted to the Kenyan Supreme Court. It was also questioned how the IEBC conducted the 2017 Kenyan general election. Kenya's Supreme Court decided that the first Presidential election results were invalid due to vote irregularities. The second presidential election would not be free and fair, according to a commissioner who made a statement to that effect. The legitimacy of the official election results, which are frequently rejected, is at the center of Kenya's electoral crisis (Cheeseman, Kanyinga, Lynch, Ruteere & Willis, 2019). To address this, the nation used both new and creative uses of existing technology to improve the effectiveness of elections.

According to Mitimbo (2021), technology has made it easier to do fundamental election activities including voter registration, documentation as well as data management, networks of provenance, and promotion. However, it is yet to be shown if technology will be effective in fostering credibility, providing openness, and successfully managing elections in Kenya and throughout the region. Every election cycle since the integration of ICT has been characterized by claims of electoral manipulation, yet the technology was meant to curb such occurrences (Cheeseman *et al.*, 2019). According to Shah (2015), the entire issue of using technology in elections has been politicized, so much so that most people no longer have faith in whatever

technologies IEBC uses, their benefits notwithstanding. It was thus vital to examine ICT integration by the IEBC to understand the underlying factors, the benefits, and drawbacks; this may help diagnose the problem with the current system, reaffirm the wins, and potentially support policy framework with will improve the performance of IEBC.

Generally, the factors impeding governments' successful adoption and implementation of digital technologies are well documented in the literature (Nkohkwo & Islam 2013; Morrisson & Nzuki, 2016; Alenezi, Tarhini, Alalwan & Al-Qirim 2017; Dwivedi et al., 2017). Nonetheless, the existing studies only focus on factors that affect ICT adoption by entire governments. There is a huge knowledge gap in understanding the enabling factors or obstacles for individual public offices because different government arms, agencies, directorates, and functions have different characteristics. In particular, limited research exists on the factors influencing ICT integration by the IEBC. What's more, research into the specific impacts of ICT integration on the performance of IEBC and other electoral management bodies (EMB) is lacking—there is no scholarly work typing down specific ICT functions to performance of EMBs.

Objectives of the Study

The general objective of this study was to determine the enablers of ICT integration and performance of IEBC. The study was guided by the following specific objectives;

- To determine the influence of organizational-level factors on performance of IEBC.
- To determine the influence of technology characteristics on performance of IEBC.
- To determine the influence of individual-level factors on performance of IEBC.

LITERATURE REVIEW

Theoretical Literature Review

The Technology-Organization-Environment

The framework was developed by Tornatzky and Fleisher (1990); it has gained widespread application in understanding how various factors influence technology adoption. The external and internal technologies important to the company, according to the model, are incorporated into the digital context. Tools and processes can both be referred to as technology. The word "organizational context" refers to the characteristics and resources of an organization, including its size, the level of institutionalization and consolidation, the administrative structure, the availability of human resources, the amount of slack, and the relationships between its members. The environmental context includes the macroeconomic climate, the firm's rivals, the magnitude & organization of the industry, as well as the legal frameworks (Tornatzky & Fleisher, 1990). All these factors have a big role to play in technology integration. The model was key in understanding how technology characteristics and IEBC's internal and external factors have influenced ICT integration by the Commission.

Diffusion of Innovation Theory

This study was guided by the Innovation Diffusion Theory, sometimes referred to as the Diffusion of Innovation Theory. The hypothesis was initially put out by Everett Rogers in his 1962. Since then, a wide range of disciplines, spanning marketing, agriculture, education, sociology, and the social sciences, have made substantial use of the proposition (Rogers et al., 2014). An innovation is an idea, practice, or product that a person or another unit of adoption perceives as novel (Rogers et al., 2014). The dissemination of ideas across time amongst some of the members of the social system through certain pathways is known as diffusion (Rogers et al., 2014).

Accordingly, the theory argues that potential users decide to adopt or reject innovation based on their

beliefs about innovation (Rogers et al., 2014). Rodgers identified five important innovation characteristics influencing perceptions: relative advantage, compatibility, complexity, testability, and observability. The degree to which innovation is deemed superior to the idea it has replaced is known as a relative advantage. One of the most accurate indicators of innovation adoption is this construction. The degree to which innovation is deemed consistent with current values, prior experience, and needs of potential end users is known as compatibility.

The level of complexity determines how simple or difficult it is for end users to understand innovations. The degree to which innovations can be tested only partially is known as testability. In contrast, the level of other people's ability to observe the outcomes of innovations is known as observability. These characteristics are used to explain how end users adopt innovations and how decisions are made (1962 Rogers). The constructs of this theory helped to understand the factors that influence ICT integration by IEBC.

Empirical Literature Review

Chairoel, Widyarto and Pujani (2015) examined ICT adoption in affecting organizational performance among Indonesian SMEs. According to this study, internal determinants in the adoption of ICT include organizational characteristics. Environmental elements are also considered an external component in the interim. As a result, the adoption of ICT would have an impact on the organization's efficiency and effectiveness, which would be reflected in the performance of the company. The effectiveness of business procedures (operational performance) and financial performance could therefore be used to measure an organization's performance (final performance). Lowering costs, boosting output in relation to operational performance, and market share in relation to ultimate performance. However, the context of the study was on Indonesian SMEs and not election body like IEBC. Moreover, performance was measured using both financial and non-financial

metrics including cost reduction and operational efficiency. The current study conceptualizes IEBC performance through integrity of elections, reduced cost, transparency, elections malpractices, security, public confidence in elections and increased speed.

In their study, Parsons, Daniels, Porter, and Robertson (2006), looked at organizational aspects of ICT usage and implementation in day programs for persons with learning difficulties. Three primary levels of ICT usage and implementation, as well as a number of organizational components related to the regular use of ICT resources, were identified. The staff's attitudes toward ICT, the management and structure of the workforce, and clear understandings of the purpose of ICT were all essential components in addition to the core necessities of providing training and assistance. These elements emphasize the significance of the context in which ICT use occurs and are helpful in directing practitioners toward ICT implementation and use. In order to ensure effective ICT use, hardware, software, and training must be provided as well. Parsons *et al.*, (2006) focused on day services for adults with learning disabilities and not IEBC. Similarly, other factors affecting ICT adoption were not incorporated into the study. Moreover, the study lacked a clear dependent variable while the current study analysed the effect of ICT adoption on performance of IEBC.

Ayeni and Esan (2018) conducted research on how ICT affected how Nigerian elections were conducted. The research focused on the influence of these technologies and how they affected election-related activities in Nigeria from the 1999 general election until 2017. Results demonstrate that the adoption of these technologies has significantly decreased the incidence of result manipulation at collation centers and reduced multiple registration and voting to the bare minimum. Hence, it is believed that the incorporation of ICT with the right level of reduced complexity, high compatibility, and that the observability of the results in the Nigerian electoral process has minimized severe election rigging and

fostered credible elections. Contextually, the study was done in Nigeria and does not reflect the Kenyan electoral process. Other factors affecting ICT integration such as organizational enablers were also not incorporated in the study.

By moderating cultural aspects, Riyadh, Alfaiza, and Sultan (2019) investigated the effects of technological, organizational, and behavioural characteristics on the implementation of the E-government model. The adoption of B2G e-government in Iraq and its consequences on all these businesses had all been investigated by looking at the effects of technological, organizational, and behavioral factors towards the utilization of the E-Government Adoption Model among Iraqi business organizations using moderating cultural factors. The study used listed firms from the banking, insurance, investment, service, and industrial sectors as well as hotels and corporate communications. The outcomes of the hypothesis testing point to several significant relationships, including relative advantages, compatibility, security, management support, performance expectations, perceived usefulness for e-government, ease of use by lowering uncertainty about e-government, and IT infrastructure by lowering language on e-government adoption. Instead of electoral agencies like the IEBC, the research focused on businesses from the banking, insurance, investment, service, and manufacturing sectors, as well as hotels and corporate communications. Moreover, the study factored in the moderating effect of cultural factors and was carried out in a different geographical context.

Bangalore-based researcher Bireswari (2013) evaluated organizational success in relation to employee attitudes and behavior. Numerous insights for the study were gained through the analysis of related literature in the fields of organizational performance, employee attitude, and employee behavior of IT personnel. 310 IT workers from various Bangalore-based IT businesses made up the sample. Both male and female IT workers were represented in the sample.

Judgment Sampling was used in this research. The results suggested that the employee attitude towards ICT adoption is a handy tool for the organization to use for its performance. However, the study failed to highlight other individual traits that affect ICT integration other than employee attitude and behavior. It also failed to show the direct relationship between employee attitude and behavior towards ICT adoption and organisational performance. Other ICT integration determinants were also not considered.

Peansupap and Walker (2015) identified factors enabling information and communication technology diffusion and actual implementation to improve performance in construction organisations. Before significant improvements in ICT implementation can be accomplished, it is important to have a greater understanding of the context and how various workplace, organizational, and personal aspects affect ICT implementation (Mutuku, 2019). The study's broad focus was on ICT adoption in construction organizations to improve performance, with a specific emphasis on findings from a study of a small but representative sample of Australian ICT-savvy construction organizations.

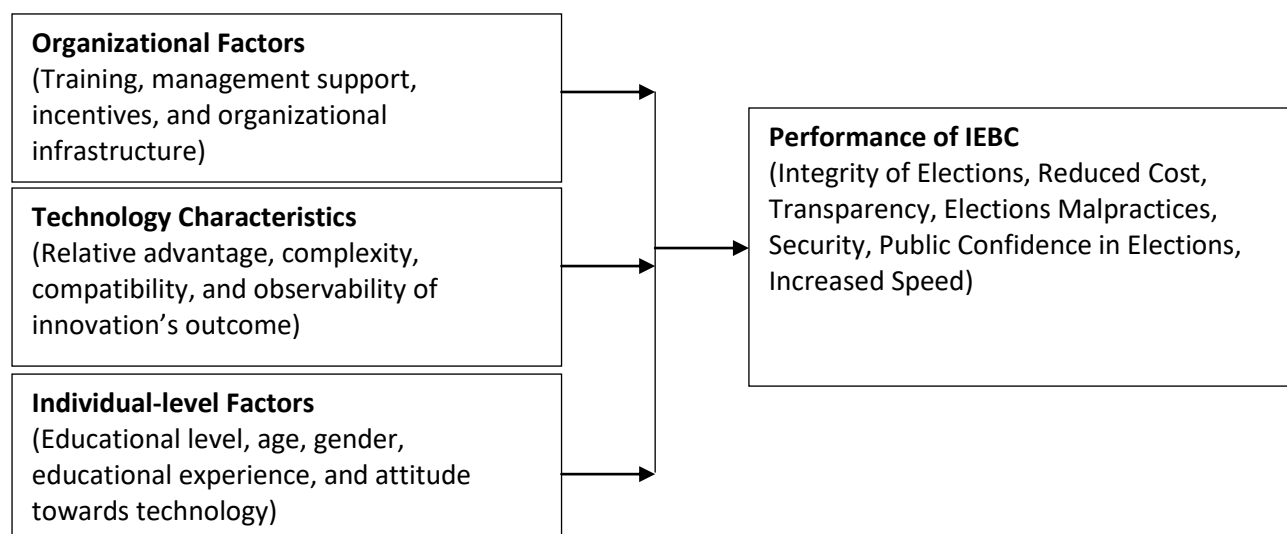
Numerous studies have examined the impact of integrating ICT on the conduct of elections in different countries, particularly on the ability of election management bodies (EMB) to deliver free, transparent, and fair elections. Many studies focus on the issues of public confidence in election technologies, the integrity of election technologies, and the impact on election conduct. For instance, by focusing on lessons from the 2013 and 2017 Presidential Elections, Kigwiru (2019) explored the use of technology in the Kenyan election process. The study concentrated on the systems that the IEBC established to guarantee that the goals of technology in delivering credible and legitimate elections were achieved. Because the use of technology was more prominent and produced a number of issues leading to presidential petitions at the presidential level, the presidential elections in 2013 and 2017 aimed to shed light on the

conditions surrounding it in the electoral process. The study came to the conclusion that using technology is a great step in boosting the legitimacy of electronic elections and democracy. However, the study failed to focus on some of the enablers of ICT integration to enhance performance of the organisation.

Donatus, Amaefule, Ikenna, and JaneFrances (2018) presented problems in rural parts of South-Eastern Nigeria to explore the use of ICT and electronic technologies in election management. The study

was carried out in the rural regions of the South-Eastern Nigerian States, and it was found that about 60% of respondents believed that the deployment of electronic technology in rural areas was hampered by a lack of trained personnel who could use the equipment effectively. Card reader malfunctions were also reported, which had an impact on respondents' confidence in the electoral process. The study neglected to take into account technical aspects that can have an impact on performance.

Conceptual Framework



Independent Variables

Dependent Variable

Figure 1: Conceptual Framework

METHODOLOGY

Descriptive survey design was used in this study. The study was conducted within Nairobi County. Nairobi is the most populous county in Kenya with over 4.3 million residents. It is also home to over 2.4 million registered voters. Thus, aside from being Kenya's capital, Nairobi County is also a politically important region because of the voter population it commands. The population of the study included 373 permanent employees working at the IEBC headquarters as well as 200 politicians. The total population for this study was therefore 573 persons. A purposive sampling technique was employed to determine members of the electorate population that were to participate in the study. For

this study, the researcher employed Yamane (1967:886) formula to calculate a sample size of 236. A semi-structured questionnaire was used to obtain primary data for this investigation. Both closed and open-ended questions were used. This study adopted transform qualitative data and used SPSS version 26 for the analysis. Data was presented in text form, tables, and graphs developed using MS Word, SPSS v.26, MS PowerPoint, and MS Excel. This study employed a multivariate linear regression model to ascertain the impact of ICT integration enablers on IEBC performance. The strength of the predictors used for the study was assessed using this analysis

technique, which also forecasts any effects and trends. The regression model took the form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where:

Y = Performance of IEBC

X_1 = Organizational-level Factors

X_2 = Technology Characteristics

X_3 = Individual-level Factors

β_0 = Regression Constant

β_1 = Coefficient of Organizational-level Factor

β_2 = Coefficient of Technology Characteristics

β_3 = Coefficient of Organizational-level Factor

ϵ = Stochastic error term

FINDINGS

Descriptive Findings

This section presents findings on assessment of enablers of ICT integration as well as level of ICT integration at IEBC. The study assessed the extent to which organizational-level factors, technology characteristics and individual-level factors influence ICT integration and performance of IEBC. Custom tables, percentages, means, and standard deviation were employed in the research for the analysis and presentation of the results.

Organizational-level factors

Participants in the study rated their agreement or disagreement with various statements on organizational-level factors. The average results are presented in Table 1.

Table 1: Descriptive Results on Organizational-level factors

Statement	Mean	SD
IEBC is well prepared to employ various innovative aspects	3.81	1.15
There is high access to suitable ICT equipment in the organization	3.82	1.03
IEBC has prior capabilities in relevant domains of ICT	3.83	1.05
IEBC conducts employee training to create a greater understanding, positive attitude, more usage, and diversified use of innovation	3.85	1.01
IEBC provides adequate training and aids staff when they run into difficulties applying different technologies	3.71	1.06
IEBC conducts training to improve successful specific task performance	3.79	1.08
IEBC offers individual employees incentives like recognition and rewards for innovation adoption	3.82	1.13
Employees are offered incentives in the form of increased autonomy and job security if they use technology	3.61	1.10
There is adequate management support for adoption and use of various technologies	3.72	1.12
The organizational infrastructure at IEBC supports ICT integration	3.74	1.17
Average	3.77	1.09

Source: Study Data (2022).

The results of the study indicated that majority of the respondents, represented by a mean of 3.81 agreed that IEBC is well prepared to employ various innovative aspects. On whether there is high access to suitable ICT equipment in the organization, a mean of 3.82 shows that majority of the study participants agreed. The next statement sought to find out whether IEBC has prior capabilities in relevant domains of ICT whereby a mean of 3.83 shows that majority of respondents agreed. Equally, as reflected by a mean of 3.85, majority agreed that IEBC conducts employee training to create a greater understanding, positive attitude, more usage, and diversified use of innovation. On whether IEBC provides adequate training and aids staff when they run into difficulties applying different technologies, majority of participants agreed as this is confirmed by a mean of 3.71.

Another statement sought to find out whether IEBC conducts training to improve successful specific task performance. A mean of 3.79 for the above claim shows that majority of respondents agreed. Similarly, with regard to the assertion that IEBC

offers individual employees incentives like recognition and rewards for innovation adoption , a mean of 3.82 indicates that majority agreed. On whether employees are offered incentives in the form of increased autonomy and job security if they use technology, a mean of 3.61 is indicative that majority of participants actually agreed. This was also the case with regard to the statement that there is adequate management support for adoption and use of various technologies as the mean values for the claim was 3.72. The final statement sought to establish whether organizational infrastructure at IEBC supports ICT integration whereby a mean of 3.74 shows that majority of respondents agreed.

Technological Characteristics

The study's second objective was to determine the influence of Technological Characteristics on performance of IEBC. The average results are presented in Table 2.

Table 2: Descriptive Results on Technological Characteristics

Statement	Mean	SD
IEBC's technological innovations that are easier to use	3.81	1.15
IEBC's technological innovations conform to the institutional infrastructure	3.55	1.22
The technological designs of the innovations are easy to understand	3.68	1.13
The technological innovations of IEBC are less difficult, time-consuming, or frustrating to apply	3.75	1.16
The technological infrastructure of the innovations are easy to understand	3.49	1.15
IEBS's technological innovations have consistency with the organization's existing values, prior experiences, habits, and needs	3.73	1.14
The outcomes of the innovations at IEBC can easily be seen and communicated to others	3.65	1.21
IEBC has readily seen positive outcomes from other election bodies that have already adopted different technologies	3.61	1.28
Average	3.66	1.18

Source: Study Data (2022).

The results as shown in table 2 indicated that majority of the respondents, reflected by a mean of 3.81 agreed that IEBC's technological innovations that are easier to use and that IEBC's technological innovations conform to the institutional infrastructure, mean 3.55. On whether the technological designs of the innovations are easy to understand, a mean value of 3.68 confirms that majority of respondents agreed. Similarly, as represented by a mean of 3.75, majority agreed that the technological innovations of IEBC are less difficult, time-consuming, or frustrating to apply. However, a mean of 3.49 shows that respondents were neutral with regard to the assertion that the technological infrastructure of the innovations are easy to understand. On whether IEBC's

technological innovations have consistency with the organization's existing values, prior experiences, habits, and needs, majority agreed and this is demonstrated by a mean values of 3.73. Similarly, majority of survey respondents agreed with the claims that the outcomes of the innovations at IEBC can easily be seen and communicated to others (mean =3.65) and that IEBC has readily seen positive outcomes from other election bodies that have already adopted different technologies as shown by a mean of 3.61.

Individual-level Factors

The third objective was to determine the influence of individual-level factors on performance of IEBC. The average results are presented in Table 3.

Table 3: Descriptive Results on Individual-level Factors

Statement	Mean	SD
The age of IEBC staff has an effect on technology adoption	3.65	1.16
The education level of IEB staff has an effect on technology adoption	3.65	1.09
Individuals of all age groups support ICT adoption by the IEBC	3.67	1.21
IEBC staff with higher education level adopt innovations quicker than those without a lot of education	3.65	1.11
Education and information have generally lowered adoption costs thereby increasing adoption of ICT at IEBC	3.75	1.05
Readiness of IEBC staff affects the acceptance and integration of technological innovation in the organization	3.89	1.10
Attitude of IEBC staff affects integration of technological innovation in the organization	3.78	1.05
IEBC staff care about the perceived enjoyment of technical products and services of the organization	3.92	1.06
Intrinsic motivators have driven IEBC to adopt personalized technologies	3.48	1.18
The ICT technologies adopted by IEB have a high value of entertainment aspect	3.66	1.10
Average	3.71	1.11

Source: Study Data (2022).

The outcomes in table 3 above show that majority of respondents, mean of 3.65 agreed that the age of IEBC staff has an effect on technology adoption and that the education level of IEB staff has an effect on technology adoption. On the statement that individuals of all age groups support ICT adoption by the IEBC, a mean value of 3.67 shows that majority of study participants agreed. This was also the case with regard to the assertion that IEBC staff

with higher education level adopt innovations quicker than those without a lot of education as confirmed by a mean of 3.65. Similarly, majority agreed that education and information have generally lowered adoption costs thereby increasing adoption of ICT at IEBC. This is shown by a mean of 3.75. On whether readiness of IEBC staff affects the acceptance and integration of technological

innovation in the organization, as shown by a mean of 3.89, majority of respondents agreed.

With regard to claim that the attitude of IEBC staff affects integration of technological innovation in the organization, a mean of 3.78 shows that a bulk of study participants agreed as was the case with the statement that IEBC staff care about the perceived enjoyment of technical products and services of the organization (mean =3.92). Further, majority were neutral with regard to claim that

intrinsic motivators have driven IEBC to adopt personalized technologies, mean is 3.48 while the largest proportion of respondents agreed that the ICT technologies adopted by IEB have a high value of entertainment aspect as shown by a mean of 3.66.

Performance of IEBC

This section presents the average responses on how ICT integration enablers have influenced performance of IEBC as shown on Table 4.

Table 4: Descriptive Results on performance of IEBC

Statement	Mean	SD
The ICT innovations of IEBC have improved the integrity of elections	3.55	1.15
The ICT innovations of IEBC have improved reduced cost of elections	3.42	1.29
The ICT innovations of IEBC have improved transparency of the election process	3.70	1.30
The ICT innovations of IEBC have resulted to reduction in election malpractices	3.84	1.15
The ICT innovations of IEBC have enhanced security of the election process	3.87	1.18
The ICT innovations of IEBC have improved public confidence in elections	3.71	1.22
The ICT innovations of IEBC have increased speed of operations of the organization	3.84	1.10
Average	3.70	1.20

Source: Study Data (2022).

Results show that majority of the respondents agreed that the ICT innovations of IEBC have improved the integrity of elections as confirmed by a mean of 3.55. With regard to the statement that the ICT innovations of IEBC have improved reduction in cost of elections, majority of respondents were neutral as shown by a mean of 3.42. On whether the ICT innovations of IEBC have improved transparency of the election process, majority of respondents as represented by a mean of 3.7 agreed. On the same note, majority agreed, mean 3.84, that ICT innovations of IEBC have resulted to reduction in election malpractices. Another statement sought to find out whether ICT innovations of IEBC have enhanced security of the election process whereby, as shown by a mean of 3.87, majority of respondents agreed. Another statement sought to establish whether ICT innovations of IEBC have improved public confidence in elections. In this regard, as shown by a mean of 3.71, majority of respondents agreed.

The final claim sought to determine whether the ICT innovations of IEBC have increased speed of operations of the organization, whereby a mean of 3.84 shows that majority of respondents agreed.

Inferential Analysis

In order to assess the significance of the association between ICT Integration enablers and IEBC performance, the study used a significance level of 5% to the coefficients of the variables. In the sections below, the findings of the correlation and regression analyses are displayed.

Correlation Analysis

To ascertain the strength and direction of the association between ICT enablers and IEBC performance at the 5% level of significance, Pearson correlation analysis was used in this study. Table 5 provides the study's results.

Table 5: Pearson Correlation Analysis

Correlations		Organizational-Level Factors	Technology Characteristics	Individual-level Factors	Performance
Organizational-Level Factors	Pearson Correlation	1			
	Sig. (2-tailed)				
Technology Characteristics	Pearson Correlation	.437**	1		
	Sig. (2-tailed)	0.000			
Individual-level Factors	Pearson Correlation	.494**	.616**	1	
	Sig. (2-tailed)	0.000	0.000		
Performance	Pearson Correlation	.380**	.488**	.438**	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	194	194	194	194

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

Source: Study Data (2022).

Table 5 above shows that organizational factors and IEBC performance have a positive and significant association, as evidenced by the correlation coefficient, r , of 0.38 and the p -value of 0.000, which is less than 0.05. This suggests that improving organizational-level factors causes IEBC's performance to significantly improve. Similar to this, there was a weakly positive and significant association between IEBC performance and technological attributes, with a correlation coefficient of 0.488 and a probability value of 0.000. This also demonstrates that an improvement in technology characteristics causes a favorable and

significant improvement in IEBC performance. Additionally, there is a positive correlation between IEBC performance and individual-level characteristics ($R = 0.438$). This correlation is also significant as the p -value is 0.000). Therefore, if individual factors were to change favorably, the performance of IEBC would be significantly improved.

Multivariate Regression Analysis

For the study, the researcher used SPSS V26.0 to generate regressions. The results of the model are summarized in table 6.

Table 6: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.536	0.287	0.276	0.525994

a Predictors: (Constant), Individual-level Factors, Organizational-Level Factors, Technology Characteristics

Source: Study Data (2022).

ICT enablers have a favorable effect on IEBC performance, according to the model summary

results, which is demonstrated by a combined Pearson correlation of 0.536. ICT enablers together

account for 28.7% of the variation in IEBC performance, according to the coefficient of

determination, which is 0.287. Table 7 provides the analysis of variance findings.

Table 7: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.167	3	7.056	25.502	.000
Residual	52.567	190	0.277		
Total	73.734	193			

a Dependent Variable: Performance

b Predictors: (Constant), Individual-level Factors, Organizational-Level Factors, Technology Characteristics

Source: Study Data (2022).

The findings show that the model as a whole was statistically significant. An F statistic of 9.626 and a reported p value (0.000), which was lower than the usual significance level of 0.05, corroborated this. This shows that the appropriate enablers of the

change in IEBC performance include individual-level factors, organizational-level factors, and technology characteristics. In Table 8, regression coefficients are displayed.

Table 8: Coefficients

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	1.162	0.309		3.764	0.000
Organizational-Level Factors	0.177	0.079	0.16	2.235	0.027
Technology Characteristics	0.316	0.079	0.317	3.992	0.000
Individual-level Factors	0.194	0.097	0.164	1.997	0.047

a Dependent Variable: Performance

Source: Study Data (2022).

The optimal linear regression model obtained in this study was:

Performance of IEBC = 1.162 + 0.177 Organizational-level factors + 0.316 Technology characteristics + 0.194 Individual-level factors

According to Table 6's regression results, organizational-level factors significantly and positively affected the performance of IEBC. This is demonstrated by the beta value of 0.177 and the p-value of 0.027, which is less than 0.05. This suggests that improving organizational-level variables would lead to a substantial increase in IEBC's performance. The findings of Chairael, Widyarto, and Pujani (2015) indicating supportive organizational traits are among the internal variables that favorably

promote ICT adoption are matched with the findings. In addition to the essential requirements of providing resources and training, Parsons et al. (2006) discovered that staff beliefs towards ICT, the management and organization of employees, and clear perceptions of the purpose of ICT were additional key aspects.

In the same vein, beta value of 0.316 indicates that technological attributes positively influenced IEBC performance. A p-value of 0.000 further supports the significance of this impact. The upshot in this scenario is that IEBC performance would significantly increase with an improvement in

technological characteristics. The conclusions of Ayeni and Esan (2018) were supported by the results, which showed that the use of these technologies has greatly decreased the prevalence of result manipulation at collation centers and minimized repeated registration and voting. They said that the use of ICT in the electoral process with the appropriate degree of low complexity, good compatibility, and observability of results has reduced excessive electoral fraud to a minimum and promoted credible elections.

Similar to this, the findings suggest that variables at the individual level had a positive and significant impact on IEBC performance, as seen by the results' beta value of 0.194 and p-value of 0.047. This suggests that, if all other factors are maintained constant at zero, a positive change in individual-level characteristics would lead to a marked improvement in IEBC performance. This result is consistent with those made by Bireswari (2013), who found that an organization's attitude toward adopting new technologies can be a useful tool for improving performance. Buabeng-Andoh (2012) also shown how adoption is constrained by a lack of pedagogical teacher training, lack of confidence, and a lack of ICT abilities, all of which have an impact on final performance results.

CONCLUSIONS AND RECOMMENDATIONS

This study aim was to determine the enablers of ICT integration and performance of IEBC with specific objectives as stated in the foregoing section. It adopted a descriptive research design where IEBC CEO, Deputy Commission Secretary, directors, department managers, County Election Managers, Constituency Election Coordinators as well as politicians were the targeted for the study. Data was collected using administered questionnaires. All completed questionnaires proceeded to data analysis. From model summary outcomes, ICT enablers have a favourable effect on IEBC performance and together account for 28.7 percent of the variation in IEBC performance.

On organizational-level factors, descriptive outcomes revealed that majority of respondents

agreed that IEBC is well prepared to employ various innovative aspects, there is high access to suitable ICT equipment in the organization, IEBC has prior capabilities in relevant domains of ICT, it conducts employee training to create a greater understanding, positive attitude, more usage, and diversified use of innovation and provides adequate training and aids staff when they run into difficulties applying different technologies. Majority also agreed that IEBC conducts training to improve successful specific task performance, offers individual employees incentives like recognition and rewards for innovation adoption and employees are offered incentives in the form of increased autonomy and job security if they use technology. Moreover, majority of study participants agreed that there is adequate management support for adoption and use of various technologies and the infrastructure at IEBC supports ICT integration. Bivariate correlation showed that organizational-level factors are positively and significantly associated with performance of IEBC.

With regard to technology characteristics, majority of respondents agreed that IEBC's technological innovations that are easier to use, technological innovations conform to the institutional infrastructure, the technological designs of the innovations are easy to understand and that the technological innovations of IEBC are less difficult, time-consuming, or frustrating to apply. Moreover, majority of participants agreed that IEBC's technological innovations have consistency with the organization's existing values, prior experiences, habits, and needs whereas outcomes of the innovations at IEBC can easily be seen and communicated to others. Further, majority of study participants agreed that IEBC has readily seen positive outcomes from other election bodies that have already adopted different technologies. Regression coefficients indicated that technology characteristics positively and significantly influence performance of IEBC.

On individual-level factors, descriptive results showed that majority of respondents agreed that

the age of IEBC staff has an effect on technology adoption, education level of IEB staff has an effect on technology adoption, individuals of all age groups support ICT adoption by the IEBC

And that IEBC staff with higher education level adopt innovations quicker than those without a lot of education. Moreover, study participants agreed that education and information have generally lowered adoption costs thereby increasing adoption of ICT at IEBC, readiness of IEBC staff affects the acceptance and integration of technological innovation in the organization and that the attitude of IEBC staff affects integration of technological innovation in the organization. In the same vein, majority agreed that IEBC staff care about the perceived enjoyment of technical products and services of the organization and that ICT technologies adopted by IEB have a high value of entertainment aspect. From regression coefficients, individual-level factors positively and significantly influenced performance of IEBC.

Based on the findings, this study drew the conclusion that organizational-level factors significantly and positively affect IEBC's performance. Organizational-level factors include being well-equipped to use various innovative aspects, having a high availability of appropriate ICT equipment in the organization, having prior expertise in relevant ICT domains, conducting employee training to create a greater understanding, positive attitude, more usage, and diversified use of innovation, and providing adequate training and aiding staff when they encounter difficulties utilizing different technologies. Additionally, they include providing proper management support for the adoption and usage of various technologies, providing individual workers with incentives like recognition and awards for innovation adoption, and training to promote effective completion of specific task performance.

This study also concluded that technology characteristics positively and significantly influence performance of IEBC. This is possible by having technological innovations that are easier to use,

obtaining technological innovations that conform to the institutional infrastructure, ensuring technological designs of the innovations are easy to understand and are less difficult, time-consuming, or frustrating to apply. Performance is also improved if technological innovations have consistency with the organization's existing values, prior experiences, habits, and needs and making outcomes of the innovations easily be seen and communicated to others.

The last conclusion drawn by this study was that individual-level factors positively and significantly influence performance of IEBC. These include age of users, education level of staff and use skills, readiness of users and attitude of staff.

This study recommended IEBC to pay particular attention to organizational-level factors that affect ICT integration as they ultimately affect its performance. In this regard, there is need for IEBC to ensure that it is well-equipped to use various innovative aspects, have a high availability of appropriate ICT equipment in the organization, utilize prior expertise in relevant ICT domains, conduct employee training to create a greater understanding, positive attitude, more usage, and diversified use of innovation, and provide adequate training and aiding staff when they encounter difficulties utilizing different technologies. Additionally, there is need to provide proper management support for the adoption and usage of various technologies, avail individual workers with incentives like recognition and awards for innovation adoption, and train them to promote effective completion of specific task performance.

This study also recommends IEBC to be cognizant of the characteristics of the technology that they seek to integrate. In particular, there is need to ensure that the technological innovations that are easier to use, conform to the institutional infrastructure, are easy to understand and are less difficult, time-consuming, or frustrating to apply. There is also need to make sure that the technological innovations have consistency with the organization's existing values, prior experiences,

habits, and needs. Moreover, the study recommended IEBC to focus on individual-level factors as they positively and significantly affect performance. In this regard, it is important to ensure that employees of all ages do make efforts to learn and utilize the latest technology, train them to be ready and confident to use the technology and most importantly show the right attitude towards novel technology.

Recommendations for Further Research

In an effort to close the knowledge gap, this study looked into the enablers that facilitate ICT

integration and IEBC performance. Since the study was primarily focused solely on a single organization (IEBC), it needs to be repeated with a large number of other organizations to see whether there are any more ICT integration enablers that affect organizational performance. The study also suggests more research be done on the difficulties IEBC could face while attempting to incorporate ICT.

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