ISSN No:-2456-2165

Effects of Technological infrastructure on Employee Performance Among Kisumu County Government Employees

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Abstract:- Numerous organizations grapple with technology choices to bolster efficiency and elevate employee performance for market competitiveness. The dearth of comprehensive data on specific technologies implemented and their integration within Kisumu County Government poses a knowledge gap. The absence of a holistic understanding of how technology types are integrated across departments impedes effective decision-making for technology adoption in the Kisumu County Government. This study aimed to assess the impact of technological infrastructure adoption on employee performance among the workforce in Kisumu County Government. The significance of this study lies in its illumination of the critical relationship between technology adoption and employee performance within the Kisumu County Government, offering valuable insights for policymakers and stakeholders to make informed decisions regarding technology integration and its impact on organizational efficiency. Justification stems from the current dearth of comprehensive data on specific technologies implemented and their effects within governmental settings, highlighting the pressing need for empirical evidence to guide strategic technological advancements for enhanced workforce productivity. Guided by resource-based theory, the hypothesis centered on the positive relationship between technology adoption factors and employee performance. Employing a quantitative approach with a descriptive research design, the study surveyed 375 respondents using a structured questionnaire. The census sampling method ensured a comprehensive sample representation. The study revealed significant insights: technological adoption accounted for a notable 36.1% variance in employee performance (R square = 0.361, F(1, 367) = 68.885, p < .05). Notably, technological infrastructure positively impacted employee performance (B=.490, p<.05.The implications of these findings are substantial. The study concluded that technological infrastructure positively influences employee performance. It was however recommended that Kisumu County invests more in infrastructure to enhance employee performance. The study recommends expanding similar research to other counties, exploring technological infrastructure's influence on organizational performance Its revelations underline the significance of technological infrastructure in bolstering employee performance, prompting avenues for further exploration and informed decision-making within organizational settings.

I. INTRODUCTION

Technology adoption refers to the deliberate selection and implementation of a novel technological advancement by an individual or an organization. The correlation between the expanding technological landscape and the escalating instances of technology adoption failures within organizations has sparked considerable interest in the development of a dependable instrument for anticipating behavioral patterns. The adoption of technology is contingent not only upon organizational plans, policies, and actions, but also upon the attitudes of employees. According to Achieng and Jagero (2014), the successful use of technology in a business requires dedicated managerial efforts and a firm commitment.

Organizations are obligated to ensure the provision of adequate facilitating conditions, including technological infrastructure and resource support, as these factors ultimately impact their adoption and utilization of new technologies. Both individuals and companies are inclined to adopt new technology when they perceive prospective benefits that could enhance their market competitiveness. In contemporary times, companies extensively employ technology, particularly Information and Communication Technology (ICT), as a means to enhance their operational efficiency. Information and Communication Technology (ICT) is being extensively employed to improve the provision of services and boost customer service. The utilization of technology facilitates the efficient allocation of resources, leading to a reduction in operational costs. Hence, the utilization of information and communication technology (ICT) in the global marketing of products is being implemented without encountering geographical limitations (Ortega-Rodríguez, Licerán-Gutiérrez & Moreno-Albarracín, 2020).

According to Burhalis (2013), the utilization of Information and Communication Technology (ICT) has had a significant influence on the operations, structures, and strategies of organizations. The utilization of Information and Communication Technology (ICT) not only results in cost

savings and resource optimization, but it also contributes to enhanced customer service (Ashraf & Murtaza, 2008). The integration of technology has become an integral part of various aspects of human existence. The possession of technological competencies can be seen as essential prerequisites, commonly referred to as "gateway skills," that significantly enhance an individual's employability prospects. In the preceding decade, notable transformations have occurred in the methods by which technology facilitates the provision of services. The acquisition of technology skills, specifically in the field of Information and Communication Technology (ICT), has the potential to augment an individual's employability profile. This is especially true when these abilities are complemented by other relevant competencies and qualities, or when they act as a catalyst for the acquisition of additional skills. According to Hoyos et al. (2013),

Globally, a significant amount of financial resources are allocated each year towards the adoption of technology, particularly information and communication technology (ICT), in developing nations, such as India and China (UNDP, 2004). ICT deployments have been found to have a significant impact on promoting socioeconomic development in these nations (UNDP, 2004). ICTs have been proposed as a fundamental component in enhancing the quality of life, education, healthcare, and governance in these nations (UN Millennium Project, 2005). One of the factors contributing to substantial expenditures in technology is the attraction of foreign investors towards these nations as untapped opportunities for business expansion through establishing physical operations or outsourcing (Roberts and Arndt, 2005). The rapid economic growth observed in developing countries, such as India and China, can be attributed to various sources, including foreign direct investments (FDIs) and advantageous conditions resulting from economic reforms (Rajat, 2005).

In addition to the anticipated wide-ranging advantages, the integration of information and communication technology (ICT) within enterprises in these nations serves as a significant means of enhancing employees' competencies and fostering improved prospects for professional advancement (Rubery and Grimshaw, 2001). The impact of technology, both in its constructive and potentially destructive manifestations, has played a vital role in shaping our nation. According to Rajakumaran (2014), the rapid evolution of the environment can be attributed to various factors, including a strong emphasis on personal consumption, a deep appreciation for higher education and the pursuit of excellence across all disciplines, as well as government backing of fundamental research. Odeh (2019) posits that the utilization of technology inside an organization has been observed to enhance corporate transparency and efficiency. In the African context, information technology (IT) has emerged as a significant driver for enhancing productivity, quality, and morale (Balcer, 2004). Employee involvement has emerged as a prominent concept in many progressive organizations, characterized by the use of quality circles and labor management practices.

The provision of Community ICT access points/Telecentres in Kenya is facilitated by the Communication Authority of Kenya (CA, 2013).The community centers serve as shared ICT access points with the objective of lowering the individual cost associated with utilizing ICT services. This is achieved through the reduction of equipment expenses and service costs. The objective is to enable structured social collectives to incorporate information and communication technology (ICT) services into their routine practices, with the aim of enhancing their overall quality of life. The deployment occurred at four such facilities. Every community center was provided with a server, two PCs, a printer, and Internet connectivity for a minimum duration of one year. The centers offer a range of services. Hence, the utilization of Information Communication Technology (ICT) is not solely imperative for corporations or governmental entities, but it also holds significant importance at the national level. It is imperative for companies to refrain from relying on outdated technologies in order to maintain operational efficiency and competitiveness. The utilization of technology by individuals or employees, in adherence to ethical principles, can enhance human performance and yield organizational benefits.

Despite the role played by ICT infrastructure in organizational performance, these results are not clear in Kisumu County government in Kenya.

- *Statement of the Problem*

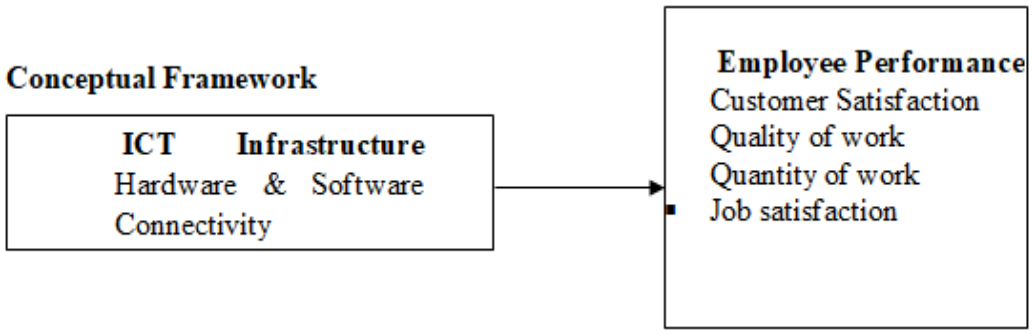
Organizations require competent personnel to fulfill their operational responsibilities, as employee performance is pivotal to the company's overall prosperity. Setting and attaining objectives is a critical determinant of employee performance. Successful personnel adhere to established time constraints, generate revenue, and cultivate brand equity through favorable engagements with customers. When employees fail to perform at an acceptable level, customers will perceive the company as indifferent to their concerns and may look elsewhere for assistance. ICT is one of the most important factors that facilitate employee performance. Organizations are implementing ICT on a global scale in an effort to increase productivity, enhance customer service, and gain a foothold in the global market. In this age of cutthroat competition, it is critical that organizations that wish to maintain a competitive advantage adopt ICT as a means of meeting customers' ever-increasing demands. Kisumu County government employee performance is impacted by ineffective management, communication barriers, ineffective governance, inefficiency, political interference, insufficient funding, and political interference, in addition to insufficient technology adoption. Adoption of ICT has a significant impact on employee performance, and consequently, on the performance of organizations. One of the primary obstacles lies in the optimal allocation of human resources with regard to the

implementation of ICT. The primary obstacles are either insufficient utilization of human resources or incorporation of ICT tools. This could be in form of misusing these tools by employees or underutilizing the potential of employees due to lack of appropriate information, communication technology tools. An organization may invest capital in bringing modern technology to use but if not appreciated by employees, it could be disastrous and the objective may not be realized in time probably due to lack of required skills in the organization. The county government of Kisumu is faced with challenges in adopting Technology. However, it is not clear how these challenges affect performance or the magnitude of these challenges. This has made the county not to offer effective, efficient and minimal and effective cost. It is against this that the study seeks to examine the effect of technology on employee performance in Kisumu County government.

Objectives of the Study

The objective of the study was therefore to determine the effect of Technological infrastructure on employee performance in Kisumu County government, Kenya. The study was guided by the hypothesis" **H_{01}:** Technological infrastructure does not have a significant effect on employee performance in Kisumu County Government"

➢ *Conceptual Framework*



The Figure conceptualizes the relationship between technology adoption and employee performance. In this case, technology adoption is measured using ICT infrastructure. In addition, the dependent variables measured using four subscales which are customer satisfaction, quality of work, quantity of work and job satisfaction. The nature of the relationship is supposed to be both bivariate and causal, whereby technological adoption is expected to have a predetermined effect on employee performance.

➢ *Resource Based Theory (RBT)*

Birge Wenefeldt devised this theory in 1984.The theory recognizes that firms attain a competitive advantage and exhibit superior performance by utilizing a synergistic combination of resources that are valuable, rare, difficult to imitate, and cannot be substituted (Barney, 1991). Moreover, according to RBT (Barney, 1991), organizations utilize these resources to execute strategies through the efficient and effective development of capabilities that can be utilized to maintain a competitive edge.Additionally, the theory places significant emphasis on the examination and identification of a firm's strategic advantages through the analysis of its unique amalgamation of assets, capabilities, skills, and intangibles. Proponents of RBT argue that capitalizing on external opportunities by repurposing existing resources is a significantly more practical approach than endeavoring to acquire new skills for each unique opportunity. The RBT model places significant emphasis on the function of resources in assisting organizations in attaining improved organizational performance. Tactile and ethereal resources are the two varieties. Physical assets comprise tangible assets. Capital, apparatus, equipment, land, and structures. Physical resources are readily available for purchase on the market; therefore, they do not provide companies with a sustainable competitive advantage, as rivals can quickly acquire identical assets. On the other hand, intangible assets encompass anything that does not have a physical presence but a company may still own (Anand, Wamba & Sharma, 2013).Intellectual property, brand reputation, and trademarks are all examples of intangible assets. In contrast to material resources, brand reputation is developed gradually and cannot be purchased on the market by competing businesses.

The RBT's underlying premise is that a firm differs in fundamental ways because each firm possesses a unequal bundle of resources-tangible, intangible assets and organizational capabilities to make use of those assets (Anand, Wamba & Sharma, 2013). Each firm develops competencies from these resources, and when developed especially well, these become the source of the firm's competitive advantage (Pearce & Robinson, 2007).

The theory therefore emphasizes on the internal resources of the firm as the source of performance and competitive advantage, rather than the external environment. In regard to this study, the following factors can be viewed as forming bundles of firm assets important to the firm and for inclusion in the framework: computing resources and capabilities, top Management Support, ICT skills and human capital. Adoption of ICT by utilization of the resources can be

used to develop competencies which in turn improve the performance of employees in county governments.

II. EMPIRICAL LITERATURE

Al-Hawary and ALdafiri (2017) researched on the adoption of the information technology elements on Employees Performance of Interior Ministry of Kuwait State, the elements of information technology variables represented by (hardware, software, databases, networks, and the human element), the study population consisted of managers in the Interior Ministry of Kuwait State, and has been used comprehensive method of the population, and the researcher used the questionnaire to collect data of the study. And researcher used statistical tests in order to analyze questionnaire, answer the study questions and testing of hypotheses. And the researcher found that there a statistically significant effect at the level of significance for the adoption of information technology elements represented by (hardware, software, data bases, and the human element) on Employees Performance of Interior Ministry of Kuwait State. Infrastructure includes Information Technology. However, it does not include the associated People and processes. Infrastructure is the base on which a system or an organisation is supported (McKay & Brockway, 1989). In computing, the physical and virtual resources that help to manage and process data, form the information technology infrastructure.

Toader, Firtescu and Anton (2018) carried a study to examine the impact of information and communication technology infrastructure on economic growth, an empirical assessment for the EU countries. Using panel-data estimation techniques, the researchers investigate empirically how various indicators of ICT infrastructure affect economic growth, proxied in the study by GDP per capita. Results indicated a positive and strongly effect of using ICT infrastructure on economic growth in the EU member states, but the magnitude of the effect differs depending on the type of technology examined.

Jabbouria, Zahari and Khalid (2015) investigated the impact of information technology (IT) Infrastructure on Innovation performance as a critical issue in the Iraqi private Universities. The proposed design approach asked participants to respond to a self-reported questionnaire, five information technologies as the independent variable, and subjective measures of Innovation performance as the dependent variable. Factor analysis was performed to identify the banks 'IT Infrastructure with Innovation performance to test. The study population consisted of six private Universities in Iraq. From these, 75 academics of the faculty were chosen. The analysis results indicated a positive and statistically significant association between IT Infrastructure and innovation performance.

A study conducted by Kimani (2015) examined the impact of information technology on organizational performance, a case of population services Kenya. A descriptive survey was used. Primary data was collected using a semi-structured questionnaire. The population for this study comprised of the entire PS Kenya staff which was 438. The questionnaire was administered electronically for data collection. The study findings revealed that majority of the respondents had various IT company devices at their disposal to enable them perform their duties. The study findings also revealed that there was a positive relationship between the level of IT use and organizational performance at Population Services Kenya. The study results indicated that IT use explains 82.4% of organizational performance at PS Kenya. The study recommends that organizations should embrace IT tools and services so as to have competitive edge and improve service delivery to their customers.

Karungani and Ochiri (2017) effect of ICT infrastructure support on organizational performance: a case of Nairobi County, Kenya. The research was based on the positivist research philosophy. A quantitative research design and a survey strategy were used.

The research employed purposive sampling to select 87 employees in Nairobi County Government to participate in the research. Data was collected using simple structure questionnaires and analyzed using descriptive and regression analysis. The findings showed that a robust Technology infrastructure in procurement improves communication, enhances efficiency, enhances monitoring and control, makes work easier as well as improving service delivery. Technology infrastructure also plays an important role in improving the level of coordination between members of the supply chain network. It facilitates the flow of information between members of the supply chain ensuring the timely delivery of goods and services between supply chain partners. By improving coordination among supply chain partners, Technology infrastructure eliminates high transaction costs associated with the flow of goods supply from one chain partner to another.

III. METHODOLOGY

This study adopted a descriptive research design with an illustration of a case study in carrying out the study which investigates the effect of ICT adoption on employee performance among employees of Kisumu County Government. The study targeted 375 participants who are officers in major departments namely; ICT, Procurement, Governance, Finance and Administration, Lands, Human Resource, Health, Agriculture, Education and finally Youth/PWD and social work.

The research employed Census sampling technique since the target population was small. In this study, 375 target respondents were issued with questionnaires. Questionnaire used as primary data collection tool. The researcher sought a research authorization letter before embarking on data collection process as dictated by ethics. The instruments were administered through personal visits to the Kisumu County Government. Primary data was collected through structured and semi structured questionnaires administered by interviewing the respondents while secondary data are collected by the use of relevant publications and reports. The researcher also conducted a pilot study on 30 employees of Kisumu County Government, these population was also used in final study after the validity study showed that they were meeting expectation of the study. Inappropriate questionnaire items were cleaned up by discarding, rephrasing and, merging. Fr reliability, the study adopted use of Cronbach's alpha. The overall coefficient for the four constructs was 0.848, which implies that the instrument was reliable for data collection.

➢ *Model Specification*

The study adopted simple liner regression analysis to establish the relationship between dependent variable which was employee performance and technology infrastructure.

$$Y=B_0+B_1X_1+e\ldots\ldots\ldots\ldots\ldots$$

Where
Y=Employee performance
B_0=Constant Coefficient
B_1=Coefficient of technology infrastructure
B_2=Coefficient of skills
X_1=Technology infrastructure
e= error term at time

IV. FINDINGS AND DISCUSSIONS

➢ *Overview of Employee performance*

Employee performance was measured using four items, which included enhancement of client satisfaction, quality of work, quantity of work and job satisfaction. These were measured on a five point Likert Scale whereby SD-indicated Strongly Disagree (1), D-Disagree (2), N-Neutral (3), A-Agree (4) and SA-Strongly agree (5). Means below an average of 2.5 on the 1-5 scale used meant that there was low performance, and above 2.5 meant that the performance was high. However, 1 was extremely low performance, 2-low, 3-Average, 4-Above average and 5 satisfactory performance in the practical interpretation. In addition, a mean and standard deviation were computed in order to get the average response as well as variations in the response. Standard deviations above 1 were indicative of high deviations from the average mean while values below 1 indicated small deviations or more agreeableness on the response. The findings are presented as shown in Table 1.

Table 1 Overview of Employee performance in Kisumu County

Statements	SD	D	N	A	SA	Mean	Std. Deviation
The clients are highly satisfied	146(39.5)	164(44.3)	29(7.8)	21(5.7)	10(2.7)	1.9	0.96
Employees do a good quality of work	188(50.8)	150(40.5)	18(4.9)	6(1.6)	8(2.2)	1.6	0.83
Large quantity of work id done by employees	145(39.2)	133(35.9)	37(10)	33(8.9)	22(5.9)	2.1	1.18
There is effectiveness on working	162(43.8)	166(44.9)	20(5.4)	8(2.2)	14(3.8)	1.8	0.93
Overall Mean & Standard Deviation						1.8	0.76

Source (Field Survey Data, 2023)

➢ *Majority of the respondents, 164(44.3%) disagreed on high client satisfaction and followed by 146(39.5%) who strongly disagreed.*

This means that a significant percentage of employees indicated very low performance in terms of client satisfaction. However, 29(7.8%) of the employees were neutral on client satisfaction, 21(5.7%) agreed and 10(2.7%) strongly disagreed. The average response (M=1.9, SD=.96) indicated low performance (clients satisfaction very low), which was agreed as indicated by low standard deviation. This means that in terms of clients' satisfaction, the county poorly performed.

The second item was the quality of work, on which majority, 188(50.8%) strongly disagreed that it was good and 150(40.5%) disagreed. There were 18(4.9%) of the respondents who remained neutral, 6(1.6%) who agreed and 8(2.2%) who strongly agreed. Based on the low average response (M=1.6, SD=.83), and standard deviation, it can be noted that average respondents agreed on low performance in terms of quality of employee work.

Performance in terms of the quantity of work carried out by employees was also measured. From the findings, majority, 145(39.2%) of the respondents strongly disagreed that employees did large quantities of work. The findings indicates that 150(40.5%) of the employees also disagreed and

37(10.0%) remained neutral. However, 33(8.9%) of the employees agreed and 22(5.9%) strongly agreed. Averagely, (M=2.1, SD=1.18) there was low rating on employee performance in terms of quantity of work done, although with deviations from the average rating. This means that whereas some respondents agreed on low quantity, others opted otherwise. It can however be concluded based on the average response that employees also had low performance in terms of quantity of work done.

Majority of the respondents, 166(44.9%) disagreed that they were effective on the services they offered, which was supported by 162(43.8%) who strongly disagreed. However, 20(5.4%) of the employees remained neutral (which is indicated of average rating). Finally, 8(2.2%) of the employees agreed that they were effective with the services while 14(3.8%) strongly agreed that they were effective. Based on the averagely low rating (M=1.8, SD=.93) coupled with low standard deviation, it can be concluded that there was low effectiveness on the services offered and hence low performance in terms of effectiveness of the services.

From the aforementioned findings, it was established that employees perform poorly in almost all the aspects that were measured, ranging from client satisfaction to effectiveness of the services offered. This means that there is low performance of employees in terms of the tested aspects in Kisumu County. The relatively low standard deviations implied that there were low variations in the average means that were low.

- *Overview of Technology Adoption in Kisumu County*

Technology adoption was measured preliminarily using basic and advanced elements of communication as well as using three indicators which had four items each. Basic communication elements included fixed line, mobile and fax while elements of advanced communication entailed email, internet browsing, intranet, file sharing among others. Respondents were asked to indicate on each of the elements the level of adoption. The findings are presented as shown in Table 2.

Table 2: Level of Technological Adoption

Nature of Communication	**Number of Respondents**
Basic Communication	F (%)
Fixed line	264(70.4%)
Mobile	375(100%)
Fax	69(18.47%)
Advanced Communication	
Email	342(91.27%)
Internet browsing	339(90.4%)
Intranet	103(27.47%)
File Sharing	142(37.87%)
Creating website	96(25.6%)
E-Commerce	84(22.47%)

The findings in Table 2 on the level of technological adoption shows different levels through basic and advanced communications. For basic communications, there was 100% use of mobile phones followed by 70.4% use of fixed lines whereas the least of use of fax at 18.4 percent. For advanced communications, the leading was the use of email at 91.27% followed by internet browsing at 90.4% and file sharing at 37.87%. The least were intranet at 27.4%, creating of websites at 25.6% and finally E-Commerce at 22.47%. The overall average level of technological adoption was at 53.7 percent.

The indicators, classified objectively as technological infrastructure, technological skills and technological management support were all measured on a five point likert scale.

These included SD-indicated strongly disagreement (1), D-Disagree (2), N-Neutral (3), A-Agree (4) and SA-Strongly agree (5). Means below an average of 2.5 on the 1-5 scale used meant that there was low adoption, and those above 2.5 meant that the adoption was high. However, a value of 1 meant very low adoption, 2-low, 3-Average, 4-Above average and 5 full adoption in the practical interpretation. These were analyzed using frequency counts and percentage. In addition, a mean and standard deviation were computed in order to get the average response as well as variations in the response. Standard deviations above 1 were indicative of high deviations from the average mean while values below 1 indicated small deviations or more agreeableness on the response. The findings are presented as shown in Table 3.

ISSN No:-2456-2165

Table 3: Technological Infrastructure

Statements	SD	D	N	A	SA	Mean	Std. Deviation
Our county has sufficient computer hardware resources	43(11.6)	206(55.7)	56(15.1)	57(15.4)	8(2.2)	2.4	0.96
Our county has adequate telephone line connections	52(14.1)	217(58.6)	34(9.2)	55(14.9)	12(3.2)	2.3	1.00
Our county has reliable and fast internet connectivity	54(14.6)	176(47.6)	67(18.1)	62(16.8)	11(3.0)	2.5	1.03
Existing infrastructure supports future system upgrade (scalability)	29(7.8)	126(34.1)	82(22.2)	108(29.2)	25(6.8)	2.9	1.10
The existing ICT infrastructure enhances efficient running of ICT solutions and service delivery	43(11.6)	130(35.1)	84(22.7)	93(25.1)	20(5.4)	2.8	1.11
Overall Mean & Standard Deviation						2.6	0.73

Source (Field Survey Data, 2023)

From the findings, majority 206(55.7%) of the respondents disagreed that the county had sufficient computer hardware resources, which was affirmed by a low mean and standard deviation that indicated very small variations from the mean (M=2.4, STD=.96). It is also clear that the county lacked adequate telephone line connections as indicated by majority, 217(58.6%) as well as unreliable fast internet connectivity as indicated by majority, 176(47.6%) of the respondents. Majority, 126(34.1%) of the respondents disagreed that existing infrastructure supports future system upgrade, which was confirmed by a low mean (M=2.9, STD=1.10) although with high standard deviation indicating variations from the average response. Finally, the findings shows that the existing ICT infrastructure does not fully enhance efficient running of ICT solutions and service delivery as indicated by majority, 130(35.1%) who disagreed, with a low mean (M=2.8, STD=1.11) and high standard deviation. From the overall low mean and small standard deviation on adoption of technological infrastructure, it can be concluded that there is little adoption.

Technological infrastructure and employee performance in Kisumu County government, To start with, a simple linear regression model was carried out to establish the effect of technological infrastructure on employee performance. To achieve this, all the items composing technological infrastructure were combined by getting the mean. The employee performance subscale (mean) was also obtained and regressed against technological infrastructure using simple linear regression model. The findings are presented as shown in Table 3.

Table 3: Model summary of regression analysis results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.546[a]	.299	.297	.87937	.299	156.688	1	368	.000	1.91
a. Predictors: (Constant), Technology Infrastructure										
b. Dependent Variable: Employee Performance										

Source (Field Survey Data, 2023)

From the findings, the model F statistics, F (1, 368) =156.688, p<.005, indicates model fitness. The R value indicates that there is a moderate multiple correlation between technology infrastructure and employee performance (R=.546). Finally, it was established that technology infrastructure accounts for 29.9% variance in employee performance, R^2=.299, p<.05. This means that technological infrastructure accounts for a significant amount of variance in employee performance. Durbin Watson test also shows values close to 2, that is 1.91 which means that there were zero autocorrelations in the data. Findings were also presented for the regression model coefficients as shown in Table 4.

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Table 4: Regression coefficients analysis

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.774	.146		12.186	.000
	Technology Infrastructure	.587	.047	.546	12.518	.000
a. Dependent Variable: Employee Performance						

Source: (Field Survey Data, 2023)

The unstandardized coefficients (B=.587, p<.005) show that technology infrastructure had a positive effect on employee performance. A unit change in technology infrastructure causes a .587 units improvement in employee performance. The change is positive and significant as shown by the p-value. The t- statistics (t=12.518, p<.005) further concludes that technology infrastructure has a positive significance effect on the employee performance since its associated p-value is less than .005 at 5% level of significance. Therefore the null hypothesis that technology infrastructure does not have a significant effect on employee performance in Kisumu County government was rejected. These findings agree with previous studies which established a relationship between technological infrastructure and performance. However, the difference comes in the scope of the study, with previous studies covering mostly the private companies. These findings agrees with the previous studies' results such as Al-Hawary and ALdafiri (2017), Toader, Firtescu and Anton (2018) among others who also established that adopting technology infrastructure improved employee performance. Given the findings in Kisumu County, it is thus important to conclude that technological infrastructure has a positive and significant effect on employee performance such that good telephone connectivity, internet connection, sufficient hardware resources and the exiting ICT infrastructure positively enhances employee performance.

V. SUMMARY OF FINDINGS

The first objective of the study sought to determine the effect of Technological infrastructure on employee performance in Kisumu County government, Kenya. Using four items, the study established a low rating on sufficiency of computer hardware, inadequate telephone connectivity and reliability of internet. However, there was infrastructural support of the upgrades and ICT solutions service delivery to some extent. Pearson product moment correlation revealed that there was a positive and significant correlation between technological infrastructure and employee performance. Regression model revealed that technological infrastructure had a positive effect on employee performance. From the first objective of the study, it can be noted that technological infrastructure is practiced in the county to some significant extent and hence is positively correlated with employee performance. Therefore employee performance relies on technological infrastructure and hence the better it is, the better the employees perform their work. Therefore it can be concluded that adoption of technological infrastructure enhances employee performance.

Based on the conclusion of first objective of the study, the study recommends that counties improve their investment on technological infrastructure in order to enhance employees' performance. The study further advocates for a serious advancement of technological skills especially among county employees through capacity building as well as continuous training. This will enhance their efficiency and consequently their performance.

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