

**DIGITAL LITERACY PRACTICES AND PERFORMANCE OF HEALTH
PROJECTS IN TRANS-NZOIA REFERRAL COUNTY HOSPITAL, TRANS-NZOIA
COUNTY, KENYA**

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Abstract

Healthcare institutions have implemented ICT services to enhance service delivery, improve accessibility to healthcare services for patients, and facilitate appropriate service delivery by stakeholders. This study aimed to analyse the Digital Literacy Practices and performance of health projects in Trans-Nzoia Referral County Hospital, Trans-Nzoia County, Kenya. The target population included doctors, nurses, pharmacists, health record workers and lab technicians, with a sample size of 96 respondents, which was 30% of the target population as selected using Mugenda (2008) formula. The research used a quantitative methodology, with primary data collected using structured online questionnaires and secondary data obtained from hospital records. Both descriptive and inferential statistics were used for data analysis, and data processing was conducted using version 28 of SPSS. Data was presented mainly in table format. The study's findings may inform the redesign of an e-health environment within the Hospital, focusing on assessing the digital skills of digital health platform users and their effectiveness in supporting health projects in the hospital. The findings from analysis were that data management ($p < 0.05$) and ICT capacity building ($p < 0.05$) have significant effect on performance of health care projects. The study concluded that digital literacy is a significant predictor of the performance of health projects. It was recommended that the human resource function at Kitale County Referral Hospital in Trans Nzoia County should work closely with the ICT department to train employees on matters of ICT and data management in order to meet the established goals and objectives of the health care projects. The finance managers working with at Kitale County Referral Hospital to invest significant amounts of financial resources in organising and funding of ICT training and capacity building endeavours in order to boost and enhance performance of the health care projects in question.

Keywords: *Digital Literacy Practices, ICT Capacity Building, Performance, Health Projects*

INTRODUCTION

The transitions that developed communities in the past decades have been detailed in a couple ways, each deriving a certain perspective or prospects of the contemporary order. For some, the emergence of Information and Communication Technology (ICT) are portrayed as pivotal to the progression of asserting values to the society (Kitsuwan & Akaki, 2023). The phrase

'information society' has featured the academic and policy implications, and predominant media, as well as the internet is evident as key production and application of data. The subsequent asserted its emphasis on cultural transitions, arguing that individuals exist in the globe where general and actual reality is not of the essence. However, there is the presence of many truths and a unit where there is the construction of individual meanings, history, and lifestyles (Okonkwo, 2021).

Radical development in the ICT industry, teamed with a transition of trend in end-user requisites, with regards to stiff competition in businesses has experienced some transitions in how services are rendered by the government. In ancient times, the old brick-and-mortar undertaking approach gradually developed into an automated ICT-dependent theory (Okonkwo, Aguwa, Jang, Barré, Page, Sullivan & Baral, 2021). The Covid-19 pandemic novel in 2019 spurred the embracing of ICT as an instrument to bring the community together by facilitating basic services in health, education, security, and safety areas ensuing the aspect of e-government-which is a contemporary system that influences how government delivers services to its citizens, through technological tools, human resources, and progressions that essential services are available, profound interrelations of customers and the firm in conjunction with wastage of resources as an approach for most governments in how they allot services to their people (Addo & Agyepong, 2020).

For a certain period now, the internet has been evident as crucial in patient/consumer empowerment globally. Health related and management sectors in the world now have burgeoned the internet, as they differ in purpose, quality, content, interactivity as well as scope for collaboration. A report by (UNICEF, 2018) indicates only half of the global population can access online services, the report further shows that most affected continents with highest offline population include Asia, a population with the highest number without access while Africa having 88% of the population without connectivity. The study also indicates that some of the main causes of the high number of offline users is poor coverage especially in rural areas, poor quality telecommunications and ICT infrastructure as well as low skill and training for users to navigate on technology and technological devices.

There is very limited information and statistics of impacts of digital literacy on health projects. However, studies by several scholars showing the impact of DL to Health projects can be found. A study, by the Korean Ministry of ICT on the impact of smart phones with issues and digital literacy on satisfaction of life concludes that problematic phones have a negative impact on life satisfaction while digital literacy had positive impact (Taskin & Ok, 2022) the issue of problematic phones could be a huge hindrance especially in application of telemedicine services and in use of chatbot communities. In its attempt to determine the impact of digital literacy on the benefits of online health tools Lepore (2019) found out that people who were less interested in technology did not benefit a lot from online health services, the study further stated that online health is a great tool for globalizing health solutions, if properly leveraged, people from different geographical locations and with similar health conditions can share information on how to treat such ailments resulting to reduced mortality rate.

In addition, Lepore, Rincon, Buzaglo, Golant, Lieberman, Bauerle Bass and Chambers (2019) noted that having technological interventions to health projects that are user friendly could increase the digital literacy levels of target populations. In-adequate digital skills by health workers have a very negative impact to the wellbeing and excellent patient care, this was an observation from a study by (Kuek & Hakkennes, 2020). The study found out that

health institutions should have a capacity building program to equip their workforce on proper and efficient use of health information systems. da Fonseca, Kovaleski, Picinin, Pedroso and Rubbo (2021) shared that eHealth can be improved using advanced technologies and the internet in provision of better healthcare services. The review of past articles from 2014 to 2019 shows that e-health is used worldwide in disease treatment that improve quality of life and improve healthcare delivery.

In Africa, Digital health (DH) is considered to be an umbrella term encompassing eHealth and mHealth, as well as emerging and developing computing areas such as artificial intelligence and the internet of things that support healthcare (Bervell & Al-Samarraie, 2019). Whereas technology has also been defined as any product that can be used to create, view, distribute, modify, store, retrieve, transmit and receive information electronically in a digital form. Digital Health Technologies (DHT) widely refer to eHealth technologies that present new or improved ways of delivering healthcare, conducting health promotion activities, and monitoring public health. The technologies are geared towards meeting the growing demand for healthcare services (Adetunji, Olaniyan, Adeyomoye, Dare, Adeniyi, Alex & Shariati, 2022).

Hagel, Paton, Mbevi and English (2020) reports on SDGs progress report that indicated a mixture of both manual and electronic collection of data through the KHIS. For the manual methods its mostly done in registering of data on paper while electronic methods involve capturing of primary data with electrical gadgets which is then conveyed to a digital platform called DHIS2. One of the key aspects of digital literacy is the ability of using information of digital platforms to make health related decisions. Chirchir, Aruasa and Chebon (2021) quoted the open-data decision making report which demonstrated that through proper interpretation of covid-19 data, the G.O.K was able to effectively budget and allocate funds prioritizing health. The main indicators include increased foreign financing by 1%, reduced domestic funding by 3% during the financial years 19/20 and 20/21 respectively, other indicators showed a reduced government recurrent, development and county allocations expenditure by almost 5% as well as increased health funds allocations by 20%. The statistics inclinations are due to the fact that the government needed more budget to save lives and cushion its citizens from the pandemic impact.

The Hivos (2022) health report noted that improvement in healthcare service provision depended hugely amongst others on digital health report platform that has been aggregated by CEMA that gave an overview of various health service up take trends. This is an important database that can lead to decisions on how to apply corrective measures and resource allocations on health-related issues. However, from the above illustrated reports and many other studies, digital empowerment seems to be biased towards the health professionals so far, the patient has been left out. Chebole (2015) noted that several factors such as increasing capacity, investing in ICT infrastructure, considering user perception and workload in adopting EMR by healthcare professionals. At the same time, the patients have not be considered and yet effective EMR and digitalization of health services, demand input from the patient.

Statement of the Problem

In contrast, there have been mixed results in previous studies of healthcare staff attitudes towards ICT. Previous studies have identified that nurses, physicians, social workers, dietitians, unit clerks and patient attendants hold positive attitudes towards ICT in healthcare progressions. In various studies, healthcare professionals stated that ICT assisted them to do

their job, improve the safety and quality of patient care, avoid duplication, increase ease of access, and assist with quick decision-making and increase efficiency (Chen, *et al.*, 2020). However, Khan, Siddique and Lee (2020) noted that healthcare professionals in other studies have identified frustrations with utilization of ICT programs, with healthcare staff disagreeing that IS improve patient care and increase efficiency and healthcare staff citing ICT to be technically cumbersome and time-consuming.

Although studies around healthcare staff digital literacy levels and attitudes towards ICT have been conducted, there is lack of literature and statistical evidence of digital health programs within Trans-Nzoia county, however, a study on using m-health services as an intervention to quick access to primary eye health services in Kenya, conducted in Trans-Nzoia county found out that 61% of patients who sought for services from secondary health care could actually be treated at primary health care facilities (Rono *et al.*, 2021). From the study, mobile devices were used to monitor patients with eye problem. Using a special algorithm to suggest the correct health unit(s), there was a constant communication to patients reminding them to seek for services from these facilities and this was attributed to improved digital health access. This shows that, the levels of digital literacy are commendable considering that the target population consisted of elderly people. Thus, the primary aim of this study was to assess both the County Referral healthcare staff and patient's digital literacy levels and how it has impacted the performance of health projects.

Objectives of the Study

The general objective was to investigate digital literacy practices and performance of health projects in Trans-Nzoia Referral County Hospital, Trans-Nzoia County, Kenya. The specific objectives were;

- i. To determine the influence of health data management on the performance of health projects in Kitale County Referral Hospital in Trans Nzoia County.
- ii. To assess the influence of ICT capacity building on the performance of health projects in Kitale County Referral Hospital in Trans Nzoia County.

LITERATURE REVIEW

Theoretical Review

Diffusion of Innovation Theory

Diffusion of Innovation (DOI) Theory, developed by Rogers (1962) explains how, over time, an invention gains momentum and spreads (adopted) through a specific population or social system (Iqbal & Zahidie, 2022). Researchers and scholars have demonstrated the practicability of DOI to a vast of social economical activities, in its study to ascertain the effectiveness of DOI as an intervention to development. Dearing (2009) found out that leveraging on opinion leaders yielded more results as opposed to using extension officers in the quest to push for agricultural, public health, and educational innovations. This means that, for any new invention to be well adopted, proper strategies have to be put in place. Adoption of a new idea, behaviour, or product for instance "innovation" does not happen simultaneously in a social system; rather it is a process whereby some people are more apt to embrace an innovation than others (Yi, Berry & Chen 2019). When promoting an innovation to a target population, it is important to understand the characteristics of the target population that will help or hinder adoption of the innovation. There are five established adopter categories, and while the majority of the general population tends to fall in the middle categories, it is still necessary to understand the characteristics of the target population

(Zhang, 2018). When promoting an innovation, there are different strategies used to appeal to the different adopter categories.

Another study to determine the diffusion of e-appointments found out that, by the 29th month, only 4% embraced and used the innovation (Zhang *et al.*, 2015) this population is equivalent to the early adopters according to the Rodgers adoption curve. The study found out that some of the cause of the low adoption rate range from improver communication from stake holders about the invention, no value preposition, incompatibility by the preferred oral methods, as well as limitations due to consumer characteristics, hence being an organizationally oriented theory, DOI theory qualifies as the model of study since it can be used to draw various strategies of improving the success rate of health projects via enforcing or adopting of use of digital platforms through digital literacy programs. The strategies will boost the achievement of the specific objectives of capacity building and proper health data management in Trans Nzoia county referral hospital.

Technology Acceptance Model (TAM)

The acceptance and the use of information technologies can bring immediate and long-term benefits at organizational and individual levels, such as improved performance, financial and time efficiency and convenience (Haq & Ghouri, 2018). The potential of technology to deliver benefits has long motivated ICT management research to examine the willingness of individuals to accept innovative technology (Wienert & Zeeb, 2021). The research on the adoption of technology became of primary importance in the 1980s, which coincided with the growth of the use of personal computers. However, a major stumbling block at the development of the research on the adoption of personal computing was the lack of empirical insight into user(s) response(s) to the information system performance. Before the development of TAM, various technological and organizational perspectives had aimed to advance ICT-related research (Alam & Saputro, 2022). This figure presents an illustration of the TAM

Previous research found out the importance of factors such as users' involvement in the design and implementation of information systems (Robey & Farrow, 1982). This automatically means that public participation can aid in achieving acceptance of technology because the final product could be customised to fit exact user requirements as well as improved user experience. Systems that are not user friendly and not appealing from the outlook are likely to create negative mind-set and this could easily contribute too few people wanting to know how they work. Same applies to digital health literacy for ICT based intervention systems. No one will be willing to learn electronic data bases or use of telemedical gadgets if the devices or interfaces are not user friendly (Nguyen *et al.*, 2020).

Conceptual Framework

A conceptual framework is described as a hypothesized construct that speculates the model under study as well as the interrelation between subjects (Chaudhary, 2018). An independent study which is as well termed as the explanatory constituent which is the prevailed cause of the variance of the dependent variable, while a dependent study is the subject that the scholar develops an urge to analyse. Below are the independent and dependent variables of the study; Independent Variables-Data management and ICT capacity building while the dependent variable is the performance of Health projects.

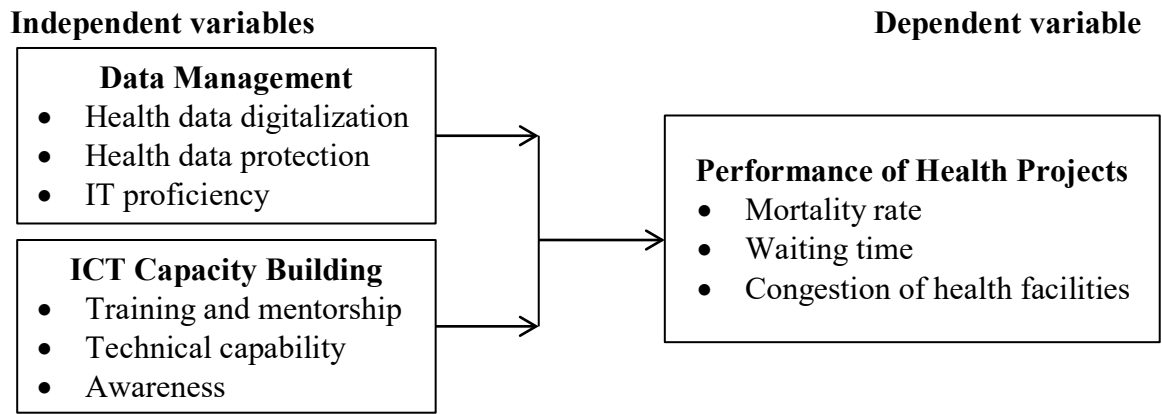


Figure 1: Conceptual Framework

Empirical Review

Data Management and Performance of Health Projects

Health information and data management is increasingly digitized and just like in other sectors, data management practices are increasing progressively. Data management in the healthcare sector as cited by Predmore and Fischer (2022) as the process of deriving sense of the data and overseeing the efficiency on it for the benefit of the institution, practitioners in conjunction with the ultimate group of patient’s welfares. Practitioners need to look into the categories of data under management in health data records and how it impacts the personnel and the challenges underlined by it. Hodges (2018) stresses that data protection variables and metrics are fundamental to shun data breaches when developing the storage system and archiving process.

Health information management is the procedural organization of health information in digital format. This could be any data off the electronic Medical Records (EMR) developed for efficient practitioners which redirects personnel to Electronic Health Records (EHS), to a rough draft scribbled through hands and scanned to digital repository. Ismail, Materwala, Karduck and Adem (2020) confirm that disruptive and transformational technologies in terms of web, cloud, Internet of Things (IoT), big data and others have found a base in health data management. The medical records and data management is demanded for access to real-time data, data sharing, data security for patient privacy and participation of the patients and public. Effective health data management systems and electronic medical recordings has improved quality, responsiveness and timeliness in healthcare services. Comprehensive and real-time medical records under health data management leads to better diagnosis, prediction and treatment of diseases.

ICT Capacity Building and Performance of Health Projects

Information and Communication Technology (ICT) instruments and capacity building have traversed the manner in which research and Health projects are undertaken and management of patient’s data, the phenomenon termed as the integral elements of both biomedical research and provision of health services across the globe (Al-Thani, 2022). These perspectives can change the process through which medical information is gathered and managed for healthcare units’ trials through mobile gadgets, healthcare practitioners employ the norm of capacity building in the ICT to render proper communication with their clients by examining and giving clear assumptions on health and illness, inclusive of development of

sufficient space or rather a room for potential interoperable data management systems for assessment over a multiple range of research.

Majority of these ICT instruments are reliable and freely accessible on the internet or open-source technology through specific software. While ICT innovative capacity building progressions would posit greater influence on health projects and patient care in resource-limited scope, these sectors normally have the limited ICT uptake and utilization rates of anywhere across the globe (Othman, Al Mutawaa, Al Tamimi & Al Mansouri, 2023). Health institutions can foster training to its workers prior to implementation by offering them an ultimate pre-emptive course of action which could comprise of a few training Program with constituents of eight core modules (M1-M8) individual module with its own specialization. Awareness can be spread through social media sites for clients to realize the existence of the Program in the hospital. This has to be accompanied by support systems and personnel, where the institution is affixed with potential network, reliable devices and expertise to resolve system problems if any arise.

RESEARCH METHODOLOGY

Research design

The research applied a descriptive study design. This design is engaged as a rationale for the existing practices and as metrics for the developed models. Moreover, descriptive analysis is drawn with practices, conditions, settings, differences or interrelations between constituents and trends (Höhne (2019).

Target population

The study targeted a population of 421 employees of Trans Nzoia Trans-Nzoia Referral County Hospital and will be categorized as doctors (24), Nurses (287), Pharmacists (39), Clinical Officers (33), Laboratory Technicians (21), Health Records Workers (17). Therefore, while the unit of analysis were the health care projects that had been implemented at the hospital, the unit of observations were the hospital employees.

Sample size and sampling techniques

The researcher applied the sample determination methods used by Mugenda (2008) formula and obtained the sample size of 96 respondents.

The formula is detailed as below;

$$nf = \frac{Nn}{n + N}$$

Where: nf = the desired sample size (where the population is less than 10,000 people); N = estimated population and n = the desired sample size (30% of 421 = 126)

$$\begin{aligned} &= \frac{421 * 126}{126 + 421} \\ &= \frac{53,046}{547} \\ &= 96 \end{aligned}$$

From the above perspective, the sample size of this study comprised of 96 participants as workers at the Trans-Nzoia Referral County Hospital in Trans-Nzoia County.

This study borrowed an idea of simple random sampling technique in conjunction with stratified sampling to speculate a representative for the research. In the first place, stratified sampling was asserted to denote the departments of participants in the referral hospital which comprise of surgery, paediatrics, obstetrics, general medical doctor, ICT and gynaecology. It

is after this that a simple random sampling technique was used to give a representative sample for each department.

Data collection instrument

Primary data was collected using closed-ended questions in questionnaires form which were administered in an online platform; the questionnaire link was accessed either via mobile device, desktop or laptop.

Pilot study

The pre-test exercise used 9 individuals which is 10% of the sample size. The respondents were workers of the district hospitals and those who take part in the pilot study were excluded from the final study.

Data presentation and analysis

Quantitative analysis with both descriptive and inferential statistics were used for data analysis where, descriptive statistics included distribution, the central tendency as well as variability, while inferential statistics were used to establish correlation analysis that provided information on the relationship between the independent variable and the dependent variable. The questionnaires were screened for completeness and the data was then coded and transmitted to excel sheets. Data analysis was performed using version 28 of SPSS. In order to represent the data in a simple and understandable way, tables were used. To test the impact of independent variables on the dependent variable, a regression model represented below was used:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Whereby;

Y = Implementation of digital literacy

B₀ = Constant

β₁, β₂ = Coefficients of determination

X₁ = Data Management

X₂ = ICT Capacity building

ε = Error term

FINDINGS AND DISCUSSIONS

Response Rate

From the 96 questionnaires that were administered to employees of Trans Nzoia Trans-Nzoia Referral County Hospital, 79 of them got dully filled up and returned which in turn translated to a response rate of 82%. This response rate was adequate and consistent with Höhne (2019) who was of the view that an above 80% response rate is excellent to support analysis of findings in a survey study.

Descriptive Statistics

The findings of descriptive statistics guided by frequencies and percentages were established and presented as indicated in the subsequent sections:

Data Management

Respondents of the study were asked to indicate whether they had ever used mobile health apps. The findings were determined and presented as shown in Table 1.

Table 1: Prior use of mobile health apps

Category	Classification	Frequency	Percentage
Prior use of mobile health apps	Yes	40	50.6%
	No	39	49.4%

The findings in Table 1 indicate that slightly over half of the respondents (50.6%) agreed on having used mobile health apps before. A number of statements were provided under data management and respondents were asked to indicate the level of their agreement. Table 2 gives an overview of the findings.

Table 2: Perceptions on Data Management

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The hospital has invested in digital health data system	30%	11.4%	11.4%	40.9%	6.3%
The digital health data has improved performance of health projects	5.1%	26.5%	16.5%	38%	14.1%
The health data is protected using passwords/authorized access	20%	16.5%	11.4%	47.1%	5.1%
The hospital staff are trained to be IT proficient	5.0%	5.1%	34.2%	49.4%	6.4%
The health data digital system contains patient information, appointments and progress	0.0%	35.1%	19%	34.6%	11.4%
The digitalized health data has information on medical inventories	0.0%	26.3%	25.1%	43.5%	5.1%
The digital data covers medical results from the lab, radiography, consultants and diagnosis	0.0%	21.4%	20.1%	44.4%	14.1%

The results in Table 2 indicate that while 49.4% of the respondents agreed that hospital staff were trained to be IT proficient, 47.1% agreed that health data was protected using passwords/authorized access. This implies that training of staff on IT matters and use of passwords to protect data had not been widely adopted at the studied hospital. The study further noted that while 44.4% of the respondents agreed that digital data covered medical results from the lab, radiography, consultants and diagnosis, 43.5% agreed that digitalized health data had information on medical inventories and 40.9% agreed that the hospital had invested in digital health data system. At the same time, 34.6% of the respondents also agreed that health data digital system contained patient information, appointments and progress. Thus, given the fact that only less than half of the respondents were in agreement on most of the statements in Table 4.11, it then follows that data management had not widespread recognition at Trans Nzoia Trans-Nzoia Referral County Hospital.

ICT Capacity Building

The study sought to establish if respondents got orientation to any new electronic system and their knowledge of any data repository centre. The findings were determined and presented as shown in Table 3.

Table 3: Orientation on new electronic system and knowledge of data repository centre

Category	Classification	Frequency	Percentage
Orientation to any new electronic system	Yes	45	57.0%
	No	34	43.0%
Knowledge of respondents on the data repository centre	Yes	32	40.5%
	No	47	59.5%

The findings shown in Table 3 indicate that while 57% of the respondents agreed that they received orientation to new electronic systems, 59.5% disagreed that on knowing any data repository centre that they could refer to in case you were stuck in your engagement with an electronic system. A number of statements on ICT capacity building were established and respondents were asked to indicate the extent of their agreement with each of them. The summary of the analysed descriptive statistics is as set out in Table 4 below:

Table 4: Perceptions on ICT Capacity Building

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The hospital invests in training of its staff to enhance ICT capacity	0.0%	56.5%	6.3%	30.9%	6.3%
There is ICT mentorship on medical officers at the hospital	0.0%	36.3%	29.1%	23%	11.5%
All the staff have technical capacity to use ICT tools	0.0%	41.4%	5.1%	35.8%	17.7%
The staff are aware of adoption/implementation of digitalization of programs at the hospital	0.0%	35.1%	21.5%	37.1%	6.3%
The hospital staff receive technical support on ICT usage whenever they request for it	0.0%	47.8%	12.7%	19%	20.5%
The hospital has enough terminals to access ICT systems	0.0%	36.5%	5.1%	35.7%	16.5%
The ICT system has self-help information that eases navigation when using it	0.0%	27.7%	11.4%	41.9%	19%

The findings in Table 4 show that on whether the hospital invested in training of its staff to enhance ICT capacity, 56.5% of respondents disagreed. This means that staff training was limited at the studied hospital. While 47.8% of the respondents disagreed on whether the hospital staff received technical support on ICT usage whenever they request for it, 41.4% further disagreed on whether all the staff had technical capacity to use ICT tools. At the same time, 41.9% of the respondents were in agreement that ICT system had self-help information that eased navigation when using it. On whether staff were aware of adoption/implementation of digitalization of programs at the hospital, 37.1% of respondents agreed, on whether the hospital had enough terminals to access ICT systems 36.5% of the respondents disagreed and as to whether there was ICT mentorship on medical officers at the hospital, 36.3% of respondents disagreed.

Inferential Statistics

In seeking to assess the association between the variables, the study did inferential statistics. This consisted of multiple regression analysis that included regression model, analysis of variance and beta coefficient for assessing significance of the predictor variables. The results are as presented in the tables under section 5, 6 and 7:

Multiple Regression Results

Multiple regression analysis was conducted to establish Digital Literacy Practices and performance of health projects in Trans-Nzoia Referral County Hospital in Trans Nzoia County. Table 5 gives an overview of the findings of the regression model summary:

Table 5: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.894 ^a	.800	.789	.53051

The results in Table 5 indicate the value of adjusted R-square as 0.789, this implies that 78.9% change in performance of health projects in Trans-Nzoia Referral County Hospital in Trans Nzoia County can explained by the digital literacy endeavours that have been put in place. Table 6 is an overview of the findings of ANOVA:

Table 6: ANOVA Findings

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	41.536	2	20.768	73.907	.000 ^b
Residual	21.356	76	.281		
Total	62.892	78			

From the findings in Table 6, the values of f calculated and p- are 73.907 and 0.000 respectively. Since the p-value is lower than 0.05, it follows that the overall regression model embraced in this study was significant and thus fit for use. The findings of beta coefficients were determined and summarized as indicated in Table 7.

Table 7: Coefficients and Significance

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	4.779	1.737		2.751	.007
Data Management	.260	.090	.260	2.889	.005
ICT Capacity Building	.367	.052	.583	7.057	.000

From Table 7, the following equation is predicted between digital literacy practices on the performance of health projects in Trans-Nzoia Referral County Hospital in Trans Nzoia County:

$$Y = 4.779 + 0.260X_1 + 0.367X_2$$

Whereby;

Y = Implementation of digital literacy

X₁ = Data Management

X₂ = ICT Capacity building

The first objective of the study was set out to investigate the influence of health data management on the performance of health projects in Kitale County Referral Hospital in Trans Nzoia County. From Table 7, the study noted that holding other things constant, a unit change in health data management would lead to 26% improvement in performance of health projects. At 5%, the study noted that health data management had significant effect on performance of health projects (p<0.05). This finding agreed with Ismail, Materwala, Karduck and Adem (2020) who confirmed effective health data management

systems and electronic medical recordings has improved quality, responsiveness and timeliness in healthcare services

The second objective of the study was to assess the influence of ICT capacity building on the performance of health projects in Kitale County Referral Hospital in Trans Nzoia County. Table 7 indicate that holding other things constant, a unit change in ICT capacity building would bring about 36.7% improvement in performance of health projects. It also emerged that ICT capacity building with $p < 0.05$ was a significant predictor of performance of the health care projects. The finding is consistent with Othman, Al Mutawaa, Al Tamimi and Al-Mansouri, (2023) who argued that ICT innovative capacity building progressions can posit greater influence on health projects and patient care in resource-limited scope, these sectors normally have the limited ICT uptake and utilization rates of anywhere across the globe.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The first objective of the study was set out to investigate the influence of health data management on the performance of health projects in Kitale County Referral Hospital in Trans Nzoia County. Based on regression results, this study conclude that health data management had significant effect on performance of health projects.

The second objective of the study was to assess the influence of ICT capacity building on the performance of health projects in Kitale County Referral Hospital in Trans Nzoia County. Guided by regression results, the study concludes that an enhancement in ICT capacity building is a significant predictor of performance of the health care projects.

Recommendations

The findings of descriptive statistics indicated that the respondents agreed that hospital staffs were trained to be IT proficient and there was use of passwords in protecting health data. With the benefits enjoyed in using ICT in health facilities, this study recommends that the ICT department at Kitale County Referral Hospital in Trans Nzoia County should invest in rigorous training and development programs to equip the staffs with knowledge and through that improve benefits including better performance of health projects. Additionally, the human resource function at Kitale County Referral Hospital in Trans Nzoia County should work closely with the ICT department to train employees on matters of ICT and data management in order to meet the established goals and objectives of the health care projects. The findings of the study indicated that ICT capacity building had significant implication on performance of the health care projects. In view of this finding, this study recommends finance managers working with at Kitale County Referral Hospital to invest significant amounts of financial resources in organising and funding of ICT training and capacity building endeavours in order to boost and enhance performance of the health care projects in question.

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