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ABSTRACT

Project performance calls for many interventions from the implementers. Aside from sourcing for the necessary resources, the project planners need to create a clear data management system to guide learning and feedback collection. This paper delves into highlighting the role data management systems play in the success of digital projects. The paper discusses how data sharing, data retrieval speed, clear information dissemination and improved decision making practices are used to influence the performance of judicial digitalization projects in the Kenyan judicial system. The paper addresses the question; how does data management practice influence the performance of judicial digitization projects in Nairobi Metropolitan, Kenya. The paper uses data collected from 107 judicial officers who patronize judicial digital services, in the Nairobi metropolitan. Data was collected using a semi –structured questionnaire that was sent to respondents through google forms. A research assistant was trained on following and sharing the instrument to contacts in the sample. Data was analyzed using descriptive and inferential statistics with the help of SPSS version 28. The findings show that data management practices have a strong correlation and positive influence on the performance of digital projects in the judicial system in Kenya. The paper concludes that in order for the judicial system to effectively deliver its mandate to the public digital capabilities will be crucial. Future researchers can pay attention to rural settings to find out if the digital projects have similar effect given the disparity in digital infrastructure development.

Key Words: Data Management, Judicial Systems, Digital Projects

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INTRODUCTION

While digital transformation in the public sector is particularly challenging, a number of successful government initiatives show that by translating private-sector best practices into the public sector context, it is possible to achieve broader and deeper public-sector digitization (Kimama, 2021). The importance of digital transformation for an organization cannot be overstated. Organizations worldwide are adopting modern, technology-driven approaches to enhance productivity, streamline operations, increase flexibility, and reduce costs. Digital transformation allows governments to connect with citizens through online platforms, mobile applications, as well as social media. A centralized information source such as a government portal for citizens would give access to a wide range of government services and information. Users can receive updates which make them feel more involved with the system. (Maendo et al. 2018).

Hubert and Mulyungi (2018) explain that judicial digitization projects involve the application of digital technologies to transform traditional, paper-based processes within the judicial system into more efficient, accessible, and streamlined digital workflows. These projects aim to leverage technology to enhance the administration of justice, improve court processes, and provide better access to legal services. Kimama (2021) notes that implementing judicial digitization projects requires careful planning, collaboration with stakeholders, and a commitment to addressing potential challenges. The goal is to enhance the efficiency of the justice system, improve access to justice, and leverage technology to better serve the needs of both legal professionals and the public. (Kimama, 2021). Scholars such as (Njeru & Luketero, 2018; Rumenya & Kisimbi, 2020; Maendo et al. 2018) also hold the same view.

Problem and Focus

The Kenyan court system has for years been primarily characterized by paper-based procedures and physical court appearances. Therefore, given

the prolonged nature of the administration of justice, immediate solutions are necessary to ensure that citizens get access to justice. Project success requires creating a well-planned project schedule as well as an understanding of the key success factors among which is data management practice. The most popular determinants of project success accepted by the research community are project mission, top management support, project schedule plan client consultation personnel technology to support the project client acceptance monitoring and feedback channels and data management initiatives.

Data management practices creates the needed learning and fast information sharing for decision making and collaboration among key stakeholders. However, there exists many challenges that make digitization projects ineffective hence defeating the very purpose for their implementation. It is from this understanding that this paper delves into analyzing the influence of data management practices on the performance of the judicial digital projects in view of improving access to justice.

The paper answers the following question:

How does data management practice influence the performance of judicial digitization projects in Nairobi Metropolitan, Kenya?

LITERATURE AND THEORETICAL REVIEW

Data plays a significant role in any organization. Using analytics, managers and executives can watch for early signs of slippage in terms of budgets, costs, and timelines and take proactive action. Analytics also helps managers capture the rate of work, so they can easily predict whether the project will be completed on time. Managers can use a burn-down chart, for instance, which is a graphical representation of work left to do over time. Moreover, deep and insightful analytics can help project manager improve resource utilization and better forecast revenue and costs.

Collecting and aggregating data from disparate sources and formats across a project's footprint is a daunting challenge. And data alone is not enough. A

strong sustainability data management strategy is needed to prioritize projects, measure the performance of all locations, and report to stakeholders internally and externally. The high availability of analytical technology can enable project managers to use various analytical reports and drill-down charts to break down complex project data and predict their behavior and outcomes in real-time. Project managers can use this predictive information to make better decisions and keep projects on schedule and budget. A data-driven analytics approach enables teams to analyze the defined data to understand specific patterns and trends. Executives can use this analysis to determine how projects and resources perform and what strategic decisions they can take to improve the success rate.

The paper anchors its investigation and argument on the knowledge based theory of the firm. This theory asserts that the modern firm collects and consolidates useful knowledge for immediate and long term decision making guidance. It is the firm's actors who create critical insights based on their experiences and mental fortitude.

The accumulation and protection of valuable knowledge and capability is a key responsibility of

Conceptual Framework

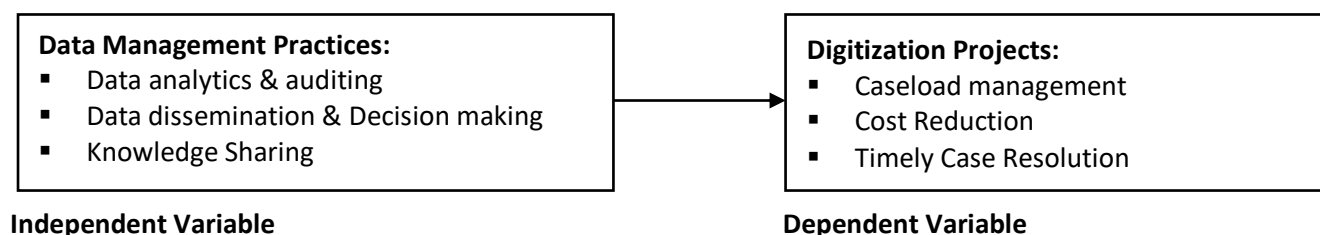


Figure 1: Conceptual Framework

METHODOLOGY

This paper is based on findings collected from a target population 12048, comprising of judicial ICT staff and advocates in the Nairobi metropolitan area. The research design used was exploratory and a sample of 107 was purposely selected to participate. Data was collected using 5- point liker scale semi structured questionnaire shared through

any manager. The respective capability levels guide the organization's efficiency in turning its inputs into sustainable and high-value outcomes. They continuously adapt to learning and document success in order to transform themselves. Hence, such organizations are characterized by a shared vision, systems thinking, mental models, personal mastery and team learning. Project managers tap into the knowledge of key actors and develop capabilities and useful insights. The Kenyan judicial system has many stakeholders such as; the government, citizens, judicial officers, advocates and the criminal justice system players. These players carry crucial information that have great potential to improve the performance of the judicial digitization project.

Performance of Judicial digitization projects is conceptualized in terms of caseload management, cost reduction and timely case reduction. Data management practices is conceptualized as data analytics, data dissemination and knowledge sharing. In this paper it argued that data management practices influence the performance of judicial digitalization projects.

google forms with the help of a well-trained research assistant.

Pilot Testing

Pilot test was carried out using 28 respondents drawn from different courts. The findings of the pilot were used to guide further refining of the instrument and to work out the validity and reliability measures.

Reliability and Validity

The instrument was tested for reliability and an average Cronbach alpha coefficient of 0.833 was obtained. Content validity was established using factor analysis and an average Principle Component Analysis value of 0.851 was obtained using Cohen Kappa weighted test. This was accepted since it was far above the 0.4 threshold value for factor analysis. It also shows that the constructs were valid as measures of the subject of interest. Face value validity was established through expert review which also yielded high acceptance index. The questionnaire was further revised based on the comments from the qualitative data. This gave it credibility and reliability to be used to collect data reported in this paper.

FINDINGS AND DISCUSSIONS

The paper focuses on establishing how data management practices influence the performance of digitalization projects in the Kenyan judicial system. The findings show that all the respondents gave consent to proceed with the study as shown in **figure 2**, majority -70% had an experience of 9 years and below as shown in **figure 3**, over 80% were below 40 years old as seen in **figure 4**, with a clear, majority -83% having attained postgraduate qualifications and only less **1%** being Diploma holders as shown in **figure 5**. This shows the respondents were well suited to participate in the study and understood the subject matter pretty well given their age groups and also education levels. The female gender was slightly under represented being 42% while males were 58% as per findings in **figure 6**.

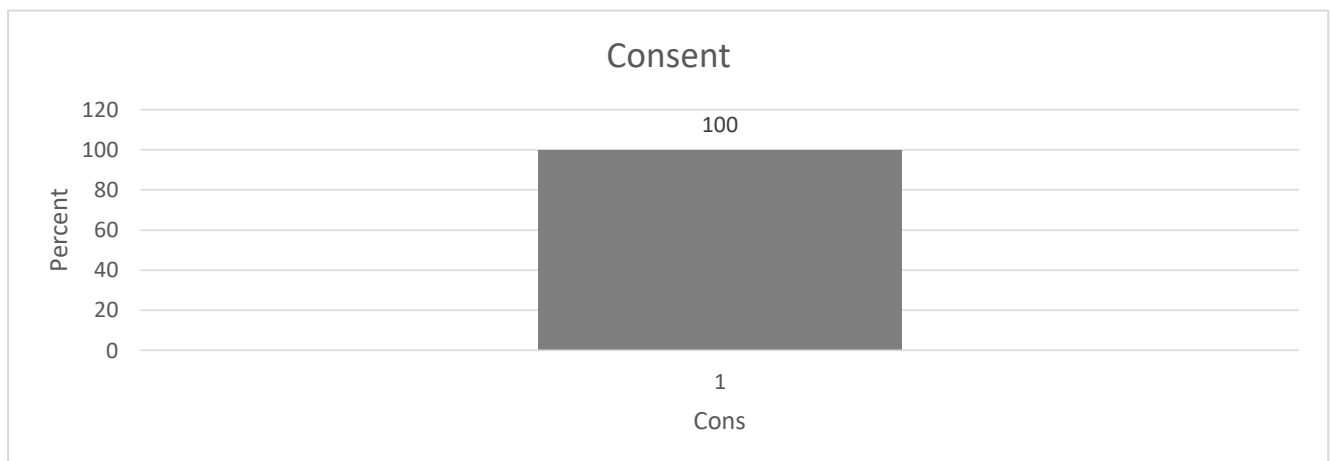


Figure 2: Respondents' Consent

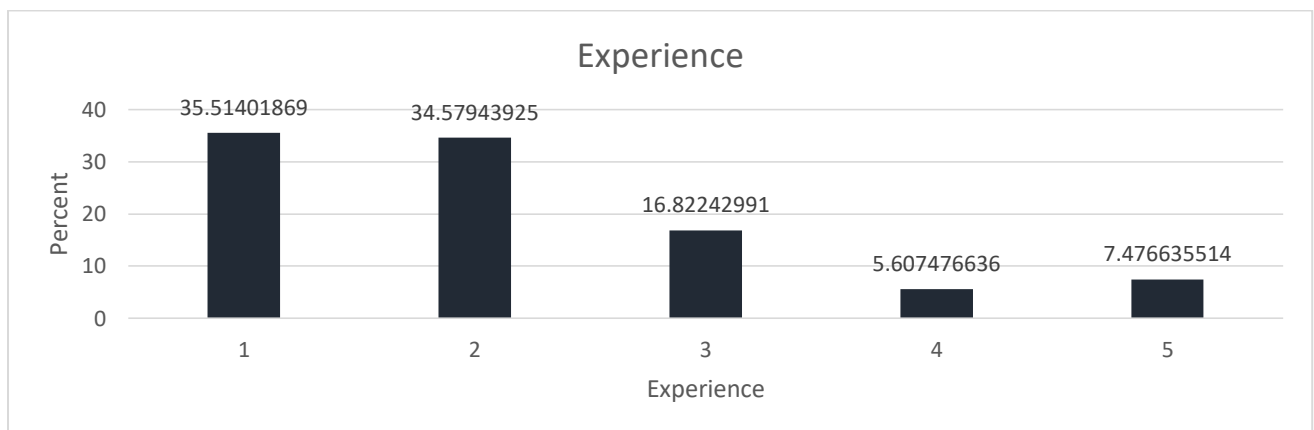


Figure 3: Respondents' Experience

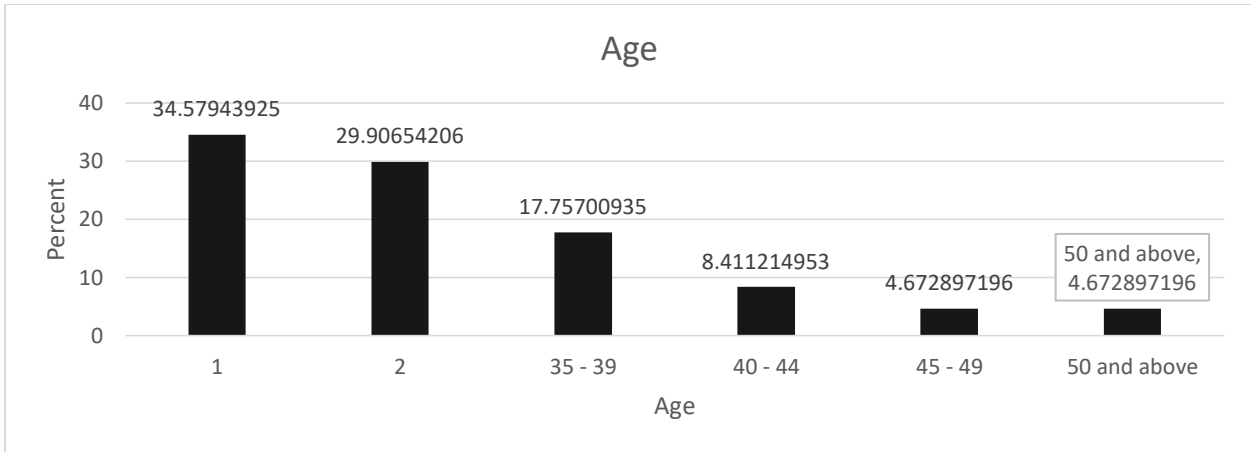


Figure 4: Respondents' Age

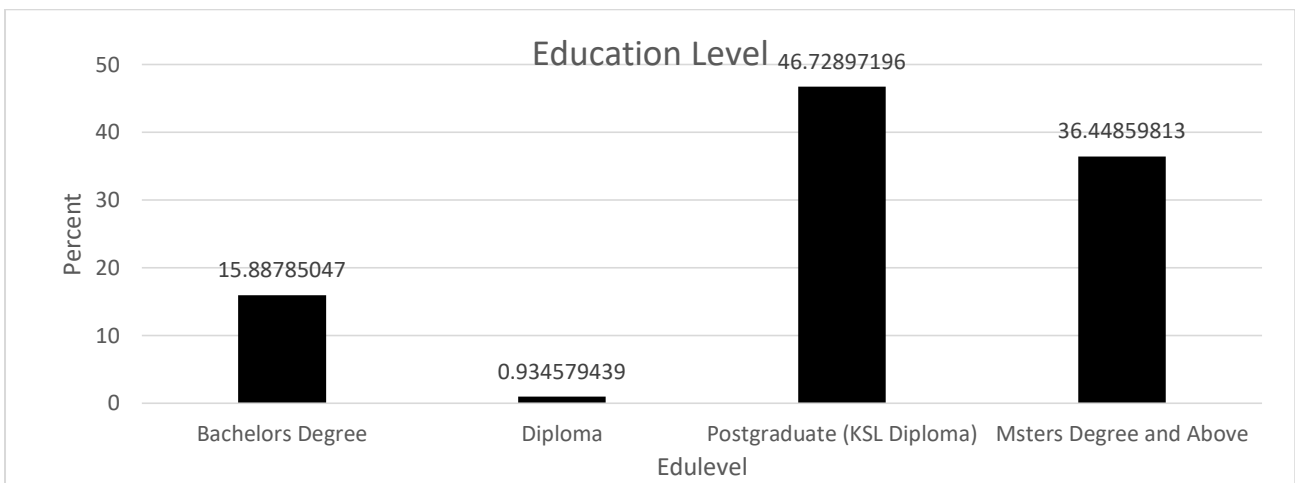


Figure 5: Respondents' Education Level

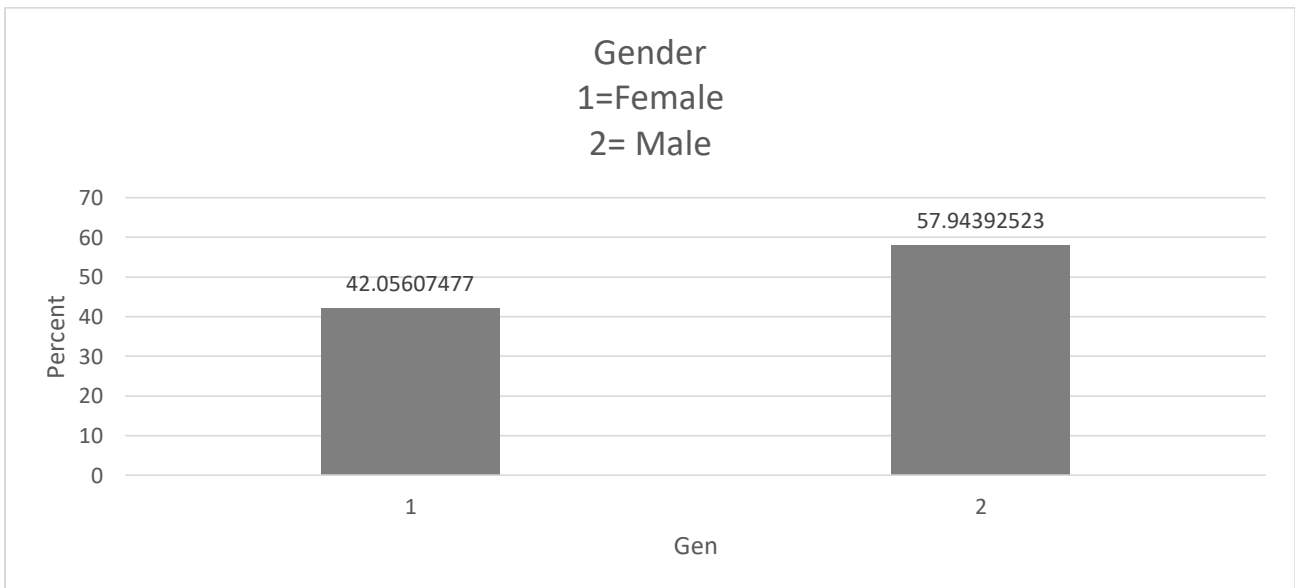


Figure 6: Respondents' Gender

Descriptive Analysis

This section discusses the descriptive analysis findings which show that data management practices moderately influences the performance of judicial digital projects. Majority of the respondents agreed that digitization projects enabled dissemination of information, collaboration among users as well as information retrieval. From the findings ease of information sharing was rated highly with 81% of the respondents rating it as moderately, great extent and very great extent cumulatively. System audits follow with a

cumulative percentage of 74%. It is evident therefore that data management practices have a role to play in digitization projects and hence need to be improved. The mean scores and standard deviations ranged from 2.8 to 3.4 and 1.0 to 1.2 showing consistency among the respondents. This indicates that the judicial system has a duty to ensure that information is easily disseminated to all users as well as conducting system audits to create transparency and security of system users. **Table 1** below shows these findings.

Table 1: Descriptive Statistics of Data Management Practices

Statement	VSE	SE	ME	GE	VGE	MEAN	STD DEV
There is a clear information dissemination procedure on the digitization process to users	8.6 %	31%	37%	18%	5.4%	2.8	1.01
Digitization process has enabled users to collaborate virtually	11%	10%	28%	32%	19.0%	3.4	1.2
Digitization enhance information retrieval speed	14%	22%	33%	23%	8%	2.9	1.16
Information shared through online platforms enables the users and other judicial actors to make informed decisions	6%	13%	38%	30%	13%	3.3	1.04
Regular system audits encourage transparency and builds confidence in the Judicial ICT platforms.	9%	17%	33%	25%	16%	3.2	1.18
N	107						

Other ways that information generated on the Judicial ICT systems can be improved to build user confidence in the Judicial ICT services include; creation of user feedback system; address system failures and interruptions; improve the quality of the output; enhance public participation in the judicial system; sensitization of the public on judicial digitization project; initiating data protection programs; supply of adequate information to users on a timely way; timely resolution of issues; regular system updates and

reviews and creating an interactive system to receive and respond to views in real time.

The recommendations brought out by the respondents are critical in the performance of the judicial digital projects and ought to be addressed.

The performance of judicial digitization projects was measured through client satisfaction, improved case load management, and cost reduction among others. The findings show that the judicial digital projects have greatly enhanced effectiveness in the

judicial system. This is evidenced by the ratings of the respondents where all aspects measured scored an average of 80% as shown in table 2. The mean scores and standard deviation ranged between 3.3 to 4.0 and 1.01 to 1.12 respectively, which shows

consistency. In essence this is evidence that digital projects are a crucial aspect of judicial system transformation. Table 2 gives these findings in detail.

Table 2: Descriptive Statistics of Performance of Digital Projects

Variable	VSE	SE	ME	GE	VGE	Mean	Std. Dev.
Increased cases closure 2%	17%	35%	30%	16%		3.4	1.01
Simplified inform. Access	6%	10%	25%	34%	25%	3.6	1.14
Access to justice	6%	14%	31%	27%	22%	4.0	1.12
Increased User Satisfaction	6%	15%	35%	27%	17%	3.3	1.12
Effective Justice System 5%	14%	31%	29%	21%		3.5	1.12
Enhanced Transparency 7%	16%	33%	25%		20%	3.4	1.16
Valid N (listwise)	107						

From the qualitative data, respondents strongly felt the need to improve the speed, quality and regular reviews of the digital platform. Customer care forums are also recommended and sensitization to the public.

INFERENTIAL STATISTICAL ANALYSIS

This section brings out findings from the inferential statistical analysis which enhance the earlier analysis and enable us make statistically significant recommendations.

Correlation Analysis

The correlation analysis shows the relationship between variables. From the findings it's clear that there is a strong positive relationship between data management practices and the performance of the judicial digital projects in Kenya. This implies that if data management practices are enhanced, the

judicial digital projects improve to a large extent. User virtual collaborations and use of information for decision making was strongly correlated with performance of judicial digital projects having correlations of .625 and .602 respectively. This implies that for digital projects to be effective data management ought to strengthen communication and enhance information sharing among users. Furthermore, users use available information to make decisions and hence information must be retrievable as well as timely. All the correlations were statistically significant at 0.01% confidence levels which is higher than the proposed 0.05% meaning they were all very reliable and accurate to depend upon in making any changes in the digitalization projects. The findings are presented in table 3 below.

Table 3: Data Management Practices and Judicial Digital Projects Correlations

	Dig Prjt Perform	Info Dissem	Virtual Collab	Dat Retrieval	Info Deci	Reg. Audits
DigPrjct Perform	1					
Pearson Correlation	1					
Sig. (1-tailed)						
Dmclearinfodissem		1				
Pearson Correlation	.566**	1				
Sig. (1-tailed)	.000					
Dmuservirtualcolab			1			
Pearson Correlation	.625**	.551**	1			
Sig. (1-tailed)	.000	.000				
Dmdataretrievalspeed				1		
Pearson Correlation	.486**	.577**	.481**	1		
Sig. (1-tailed)	.000	.000	.000			
Dminfomddisions					1	
Pearson Correlation	.602**	.585**	.611**	.623**	1	
Sig. (1-tailed)	.000	.000	.000	.000		
Dmregularaudits						1
Pearson Correlation	.499**	.524**	.663**	.493**	.656**	1
Sig. (1-tailed)	.000	.000	.000	.000	.000	

**** Correlation is significant at the 0.01 level (1-tailed).**

List wise N = 107

Regression Analysis

The variables under study were found to have a statistically significant influence on performance of the digital projects. In order to ascertain the extent of influence for each variable a regression analysis was undertaken. From the analysis shown in figure

7 below all the independent variables had a strong positive influence on the dependent variable. The relationship was also linear showing for every effort to improve data management practices, the judicial digitization project outcomes would be greatly enhanced.

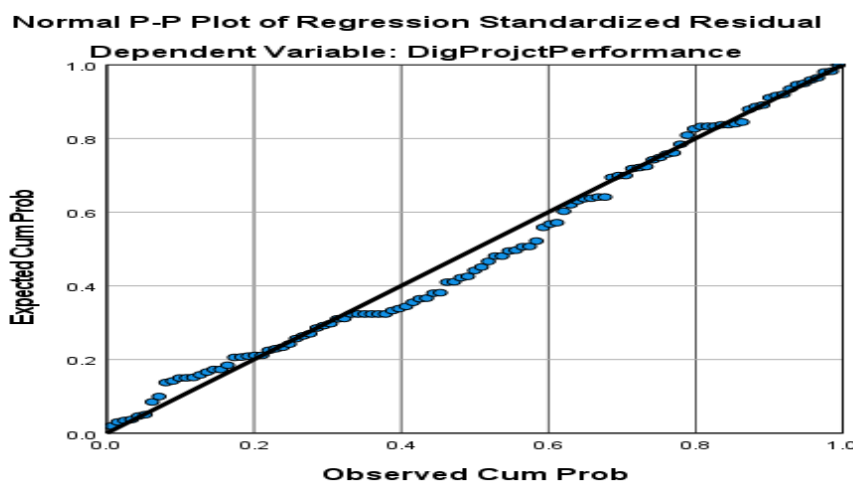


Figure 7: Regression Plot

Further analysis was done to show the influence of each variable on the model.

This section gives the model summary and the regression coefficients.

From the model summary it is seen that data management practices accounts for changes in the judicial digital projects contributing 50% of the changes as per the R Square in table 4 below. The

model is significant at 0.01 confidence level and the F value of 20.219 which is greater than the F critical value of 3.81. Therefore, the model is fit to explain the changes in the dependent variable by the independent variable. This further agrees with the regression graph presented in figure 7 above.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	df1	F	Sig. F
1	.707 ^a	.500	.475	.40174	20.219	5		.001

a Predictors: (Constant), q95dmregularaudits, q93dmdataretrievalspeed, q91dmclearinfodissem, q92dmuservirtualcolab, q94dminfomddisions

b. Dependent Variable: Dig Project Performance

The regression coefficients further reveal the extent each variable leads to better performance of the digital projects. From the regression coefficient table, it is seen that the data management practices contribute to the performance of the Judicial digital projects in moderation. Of importance to note is that clear information dissemination, user virtual collaboration and information sharing for decision making contribute positively influence the project performance with regression coefficients values of; 0.199, 0.274 and 0.232 respectively. This influence is also statistically significant at 0.05 confidence level.

collaborations and information dissemination, the project tends to do better. Strangely the rest of the variables contributed insignificantly to the performance of the judicial project performance. Therefore, data retrieval ease and regular audits were not found to be beneficial by the users of the digital projects. It is critical for the implementers of the judicial digital projects to be keen on the data management practices they engage in. Table 5 below gives the findings. Regular audits also had negative and insignificant influence meaning continued audits could negatively affect the digital projects.

The implication of this finding is that when the project team enhance information sharing, virtual

Table 5: Regression Model Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	t.	Sig.		
B	Std. Error	Beta				
1	(Constant)	1.161	.242	4.802	.000	
	Dmclearinfodissem	.199	.090	.212	2.204	.030
	Dmuservirtualcolab	.274	.079	.352	3.465	.001
	Dmdataretrievalspeed	.045	.078	.055	.575	.566
	Dminfomddisions	.232	.100	.255	2.329	.022
	Dmregularaudits	-.032	.084	-.040	-.381	.704

a Dependent Variable: DigProjectPerformance

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

From the findings discussed, this paper summarises everything in this section. It is evident that data management practices are critical in the performance of projects. For the judicial system digitization projects, improving information access for decision making, enhancing virtual collaborations and disseminating information is critical. The paper has no doubt that digital projects have greatly improved access to justice, access to information and satisfaction of clients.

The paper concludes that for effectiveness of the judicial system digitization is crucial. It is necessary

to build on data management practices and also improve quality of services offered online. The project team and judicial officers need to improve the security of the data on their platform.

The paper recommends the following for the judicial digitization projects; improve communication and feedback; engage the public and sensitize them on the projects; manage time and enhance system security.

Future researchers can concentrate on studying rural areas to find if the project enhance interaction and realtime service delivery given the digital infrastructure disparities.

REFERENCES

- Hubert, N., & Mulyungi, P. (2018). Influence Of Monitoring and Evaluation Planning on Project Performance In Rwanda: A Case Of Selected Non-Governmental Organisations In Gasabo District. *European Journal of Business and Strategic Management*, 3(8), 1-16.
- Kinama, E., (2021). Traditional Justice System as Alternative Dispute Resolution Under Article 159(2) (C) of the Constitution of Kenya, 2010. *Strathmore Law Journal*, 1(1), 22-40.
- Maendo, D. O., James, R., & Kamau, L. (2018). Effect of project monitoring and evaluation on performance of road infrastructure projects constructed by local firms in Kenya. *International Journal of Economics, Business and Management Research*. 2(4), 318-328.
- Njeru, I. M., & Luketero, S. W. (2018). Influence of monitoring and evaluation strategies on performance of medical camp projects in hospitals in Kenya: A case of Embu North Sub County. *International Academic Journal of Information Sciences and Project Management*, 3(1), 61-73.
- Rumenya, H., & Kisimbi, J. M. (2020). Influence of Monitoring and Evaluation Systems on Performance of Projects in Non-Governmental Organizations: A Case of Education Projects in Mombasa County, Kenya. *Journal of Entrepreneurship and Project Management*, 5(2), 46-66.