



Vol. 7, Iss. 1 (2026), pp 279 – 287, July 14, 2026. www.reviewedjournals.com, ©Reviewed Journals

DATA MANAGEMENT SYSTEMS AND PERFORMANCE OF SACCOS IN UASIN GISHU COUNTY, KENYA

Daniel Kiplel Birgen¹ & Josphat Kwasira, PhD²

¹ Postgraduate Student of Master of Business Administration (Strategic Management), Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya

² Lecturer, Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya

Accepted: July 2, 2026

DOI: <https://doi.org/10.61426/business.v7i1.551>

ABSTRACT

SACCOs in Uasin Gishu County struggle to optimize available tools and systems, resulting in inefficiencies, higher operational costs, slower service delivery, and decreased competitiveness, which ultimately hinders financial growth, customer satisfaction, and market share. Thus, the paper sought to analyze the impact of data management systems on SACCO performance in Uasin Gishu County, Kenya. The theoretical foundation was based on Technology Acceptance Model (TAM), and Resource-Based View (RBV). The targeted population was 227 SACCO employees and using Yamane formula 145 respondents formed the sample group. These respondents were stratified as per their role and filled the questionnaire. The conducted descriptive and inferential statistics revealed that data management systems at ($r = 0.732$, $\beta = 0.249$, $p = 0.007$) was positively associated with SACCO performance. The study concluded that increased use of data management systems enhances service efficiency, member satisfaction, decision-making and overall performance. The study recommends that SACCOs should adopt effective data management systems to enhance performance.

Keywords: Data management systems, Member data systems, Data security practices, Decision-support systems, Performance

CITATION: Birgen, D. K., & Kwasira, J. (2026). Data management systems and performance of SACCOs in Uasin Gishu County, Kenya. *Reviewed Journal International of Business Management*, 7 (1), 279 – 287.

INTRODUCTION

Organizational performance refers to the degree to which an institution successfully achieves its set goals, objectives, and desired outcomes within a given period. As explained by Gutterman (2023), organizational performance is multidimensional, encompassing financial performance, customer satisfaction, and market share. The outlook of financial performance is on generation of revenues, and returns on investments; the customer satisfaction is informed by positive feedback reviews and customer retention rates; and market share as command of the customers in a market. In the context of SACCOs, performance is measured as volume of loan disbursements, membership and deposit volume. Improving performance in the SACCOs of recent largely depends on adoption of digital transformation practices such as data management systems. These systems enhance service efficiency, reduce operational costs, strengthen member engagement, and expand outreach.

Data management systems may be described as online platforms that help to gather, store, process, secure and analyze organizational data, which contribute to sound decision-making (Hosen et al., 2024). Data management systems in SACCOs aid proper keeping of records, profiling of members, financial reporting, risk monitoring and compliance to regulations. The following systems increase transparency, accuracy of reporting, minimize redundancy of data, and minimize operational errors. According to Mutua (2024) effective data management helps SACCOs to understand member behavior, evaluate financial trends and make sound strategic decisions. Data management systems enhance centralization and protection of information, boost operational efficiency and enhance internal controls hence positively impact SACCOs performance.

At the global scene, in the USA, Jones and Davis (2020) observed that credit unions using data management systems that personalized the services, which improved trust, engagement and ultimately member satisfaction. Similarly, credit unions in Australia that had invested in data management systems were able to meet the diverse needs of members. According to Smith and Turner (2021) the data management systems allowed Australian cooperatives to segment members based on financial behavior, enabling targeted product offerings and better communication. Harwood *et al.* (2020) emphasize that automation through data management systems significantly reduced customer service costs, enabling institutions to reinvest savings into product innovation and market expansion.

Regionally, the SACCOs in South Africa adopted the data management systems to categorize members based on financial needs, facilitating customized service delivery, which improved service delivery quality. Smith and Ndlovu (2020) confirmed that these digital systems were attractive to the youths and hence increased their membership. Additionally, Moyo *et al.* (2019) and Nigeria's Adebayo and Oyeleke (2020) show that data management systems enhance customer engagement by providing personalized updates, reminders, and tailored financial advice; which led to higher member retention rates. At the same time, Mensah and Asante (2020) opine that data management systems enhanced operational efficiency, enabled better decision-making and increased customer loyalty due to personalized service delivery in Ghana. Okoro *et al.* (2021) recorded a notable increase in customer loyalty, deposit levels and profitability, whenever SACCOs use data management tools. Inferring that these improvements stemmed from the ability of data management systems to facilitate meaningful relationships with members.

The Kenyan context is such that Odhiambo (2020) noted that SACCOs using data management systems were able to enhance member experiences through automated communication, personalization of updates and efficient means of follow-ups. Odinga's (2020) shared similar sentiments in that the use of data management systems allowed the SACCOs to communicate more effectively. As such the increased convenience and accessibility of services contributed to financial growth and improved market share. However, the reviews did not show specific performance outcomes within the Uasin Gishu County context. At the same time, data shows that many SACCOs continue to use manual processes, and plagued with the inability to integrate

digitally between members and staff. These issues restrict SACCOs' capacity to optimize the gains that are forecasted by Resource-Based View (RBV) theory, as improved performance from using systems as a strategic resource and Technology Acceptance Model (TAM) adoption linked to perceived ease of use and perceived usefulness as a motivator for using data management systems.

Thus, this paper analyzed data management systems as modelled by technology acceptance perspective (TAM) and resource-based view theory in improving performance of the SACCOs within the Uasin Gishu County. Specifically, this study analyzed the effect of data management systems on the performance of SACCOs in Uasin Gishu County. The research hypothesis was that there is no significant relationship between data management systems and the performance of SACCOs in Uasin Gishu County.

REVIEW OF LITERATURE

Theoretical Review

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), developed by Davis in 1989, aims to explain and predict user behavior regarding technology adoption. According to the model, individuals are more likely to accept and use technology if they perceive it as useful and easy to use. The model identifies two critical factors affecting technology acceptance: perceived usefulness (PU) and perceived ease of use (PEOU). PU refers to the degree to which a person believes that using a particular system will enhance their organizational performance, while PEOU refers to the degree to which a person believes that using the system was free from effort. These factors determine the behavioral intention (BI) to use the technology, which in turn affects the actual usage behavior. The TAM suggests that technology adoption is directly affected by the perceptions of usefulness and ease of use, which ultimately lead to technology acceptance and regular use.

In this paper, Technology Acceptance Model describes the impact of adoption of data management systems, on the performance of SACCOs in Uasin Gishu County. Accordingly, adoption of data management systems can be determined by the ease of use and integration of the technologies into SACCO operations. Consequently, their adoption and usage would directly translate into how much they help enhance service delivery, operational efficiency and overall performance of SACCOs. Conversely, when the SACCOs perceive the usefulness of data management systems to improve customer relationships and operational efficiency, while perceived ease of use could refer to how easily SACCO staff can adopt and use these digital tools; then these systems are adopted and used in the SACCOs. Aligning with the sentiments shared by Davis (1989), when SACCOs perceive digital tools as beneficial and easy to implement, they are more likely to adopt them, which can lead to enhanced performance.

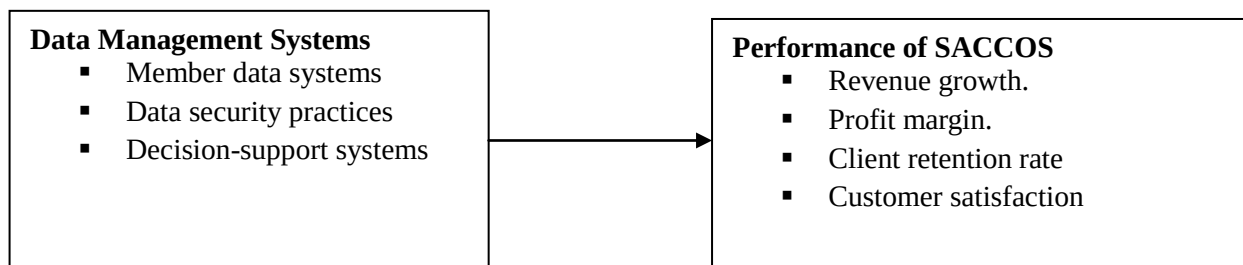
Resource-Based View (RBV)

The Resource-Based View (RBV), introduced by Barney in 1991, focusing on how a company's resources and abilities are the main factors that influence its competitive edge and how well it performs overall. The RBV suggests that businesses can achieve and keep a competitive advantage by using resources that are valuable, rare, hard to copy, and can't be easily replaced. In the case of SACCOs, resources could include both tangible assets like financial capital and intangible assets such as technological tools including data management systems, skilled staff, and brand reputation. By effectively utilizing these resources, SACCOs can improve their financial performance, customer satisfaction, and market share, thus gaining a competitive edge in the financial sector.

The Resource-Based View is used in this study to describe the role of data management systems, as strategic resources that enhance performance of SACCOs in Uasin Gishu County. These data management systems enhance decision-making and customer management resulting in increased membership numbers. Hence, SACCOs which successfully acquire, combine, and use these digital resources have a better chance of

realizing better performance rates. Therefore, RBV assesses the extent to which SACCOs in Uasin Gishu County can leverage digital data management systems as valuable resources to achieve a competitive advantage. Ultimately, SACCOs that adopt data management systems can better personalize services, enhance customer satisfaction, and retain members, which directly improves financial growth and market share.

Conceptual Framework



Independent Variable

Dependent Variable

Figure 1: Conceptual Framework

This paper highlights that data management systems are operationalized through specific strategic measures that reflect their effectiveness within SACCO operations. These measures include the use of member information management systems, application of data analytics tools, level of data accuracy and accessibility, and implementation of data security and protection mechanisms. These indicators form the basis for assessing the influence of data management systems on performance of SACCOs.

Empirical Review

In their research conducted in 2024, Atsiaya and Bwire sought to explore the implementation of IT shared services in Kenya and its impact on the financial performance of SACCOS as far as big data management software, core banking systems, and digital banking are concerned. The research was designed using the descriptive survey design methodological framework and used stratified random sampling during sampling. Researchers found out that 94.4% of SACCOS have core banking systems, 87.1% have big data management systems, 88.3% have digital banking systems, and 88.0% have positively impacted performance.

Mweu and Mose, (2024) determine effect of perceived ease of use on performance of savings and credit co-operatives (SACCOS) In Agriculture Sector in Kiambu County, Kenya. The reviewed data showed that perceived ease of use has a positive and significant effect on performance of savings & credit co-operatives (SACCOS) in agriculture sector in Kiambu County, Kenya.

Fernandez, Lambinico and Fernandez, (2025) explore the technical feasibility by implementing a web-based records management. Sustainable development for digitalization aims to ensure that as digital technologies advance and are employed in organization industries, they support long-term economic growth, social equality, and environmental protection. The findings indicate that respondents were effectively able to provide appropriate records-related services to key stakeholders, including students, teaching and non-teaching staff, and various administrative departments but the adoption of digital technologies plays a crucial role in resolving these problems, leading to more efficient, accurate, and accessible recordkeeping and also the potential of centralized systems to streamline administrative processes, improve data accuracy, and support data-driven planning and policy development.

Nisar et al., (2021) examine the antecedents and role of big data decision-making capabilities toward decision-making quality and environmental performance among the Chinese public and private hospitals. It also examined the moderating effect of big data governance that was almost ignored in previous studies. Findings

revealed that data management challenges (leadership focus, talent management, technology and organizational culture for big data) are significant antecedents for big data decision-making capabilities in both public and private hospitals. Moreover, it was also found that big data decision-making capabilities played a key role to improve the decision-making quality (effectiveness and efficiency), which positively contribute toward environmental performance in public and private hospitals of China.

A study by Mittal (2025) in India examined Leveraging Artificial Intelligence to enhance customer service in cooperative banks in India. The researchers employed a mixed-methods approach to analyze how tailored financial services affected long-term member commitment. They found that institutions using data management systems personalization recorded higher uptake of savings and loan products and improved retention rates.

Chinyere and Ikoromasoma, (2021) studied on the data management system and organizational efficiency of deposit money banks in Port Harcourt, Rivers State, in Nigeria. The study adopted the descriptive survey research design. The result revealed that there is a significant positive relationship between data management systems and organizational efficiency of deposit money banks in Port Harcourt.

METHODOLOGY

An explanatory research design was deemed appropriate through its capacity to identify the cause-and-effect relationships between data management systems and performance of SACCOs. The targeted population comprised 227 employees drawn from twenty (20) SACCOs operating in Uasin Gishu County. Using the Yamane (1967) formula, a sample size of 145 respondents was selected to fill the self-administered questionnaire. The respondents were stratified according to their job roles as managers, accountants, and credit officers in the SACCO. Later on, descriptive and inferential statistics were used in analyzing the data and findings were presented in tables and discussion form.

This multiple regression model was used to guide multiple regression analysis

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

Where;

Y = Performance of SACCOs

β_0 = Constant

β_1 = constant regression coefficients

X_1 – data management systems

ϵ - Error term explaining the variability of the factors that are not mentioned.

FINDINGS AND DISCUSSIONS

The researcher conducted descriptive, correlation and regression analysis and findings and discussions are presented in these sections:

Descriptive Analysis Results

Table 1: Descriptive Statistics on Data Management Systems

Data Management Systems		SD	D	N	A	SA	Mean	Stdv
The SACCO uses data management systems to securely store member information.	F	13	15	4	62	35	3.71	1.26
	%	10.1	11.6	3.1	48.1	27.1		
Data management systems enable quick retrieval of member records when needed.	F	15	13	4	55	42	3.74	1.32
	%	11.6	10.1	3.1	42.6	32.6		
Data management systems enhance data security and confidentiality within the SACCO.	F	15	23	6	48	37	3.53	1.38
	%	11.6	17.8	4.7	37.2	28.7		
Data management systems reduce errors associated with manual record keeping.	F	15	13	4	49	48	3.79	1.35
	%	11.6	10.1	3.1	38.0	37.2		
The SACCO regularly updates its data systems to improve efficiency and reliability.	F	20	17	2	53	37	3.54	1.43
	%	15.5	13.2	1.6	41.1	28.7		
Data management systems support informed decision-making through accurate data analysis.	F	15	16	7	55	36	3.63	1.32
	%	11.6	12.4	5.4	42.6	27.9		

Table 1, results show that majority of the respondents agreed with components of digital management systems in securing storing information, maintaining confidentiality, reduced errors, ensuring efficiency and reliability and making informed decisions.

Table 2: Descriptive Statistics on performance of SACCOS

Performance of SACCOS		SD	D	N	A	SA	Mean	Stdv
SACCOS have experienced consistent revenue growth due to the adoption of digital marketing and technological innovations.	F	11	17	2	57	42	3.79	1.27
	%	8.5	13.2	1.6	44.2	32.6		
The introduction of digital services has positively impacted the overall revenue growth of SACCOS.	F	11	15	6	62	35	3.74	1.22
	%	8.5	11.6	4.7	48.1	27.1		
SACCOS have seen an increase in profit margins as a result of improved operational efficiency and digital service offerings.	F	18	12	3	54	42	3.70	1.38
	%	14.0	9.3	2.3	41.9	32.6		
The adoption of new technologies has helped SACCOS reduce operational costs, thereby improving their profit margins.	F	7	22	8	51	41	3.75	1.22
	%	5.4	17.1	6.2	39.5	31.8		
SACCOS have a high client retention rate, thanks to personalized services and improved engagement through digital platforms.	F	6	10	4	61	48	4.05	1.07
	%	4.7	7.8	3.1	47.3	37.2		
Customer satisfaction has improved due to the enhanced service offerings and seamless experiences provided by SACCOS' digital	F	10	11	10	58	40	3.83	1.19
	%	7.8	8.5	7.8	45.0	31.0		

Table 2 results show the respondents agreeing to noting revenue growth in the SACCO, increase in profit margins, cutting down operational costs, higher client retention and enhanced customer satisfaction from use of digital data management systems.

Inferential Analysis Results

Table 3: Correlation Analysis

		Performance of Saccos	Data management systems
Performance Of Saccos	Correlation	1	
	Sig.		
Data management systems	Correlation	.732**	1
	Sig.	.000	

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

Pearson correlation analysis was conducted to determine the direction, strength and significance of the relationship. The results show data management systems had a strong positive and statistically significant relationship with performance of SACCOS ($r = 0.732$, $p < 0.01$). The implication here is that effective data management systems contribute to decision making, increase efficiency and foster organizational development leading to improved performance.

Regression Analysis

Table 4: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.820 ^a	.672	.662	.57439

The findings in Table 4, indicate that the correlation coefficient (R) was 0.820, implying a strong positive relationship between the variables. The coefficient of determination (R^2) was 0.672, indicating that 67.2% of the variation in performance of SACCOS was explained by data management systems. The remaining 32.8% of the variation in performance of SACCOS may be attributed to other factors not included in the model. The adjusted R^2 value of 0.662 indicates that after adjusting for the number of predictors in the model, approximately 66.2% of the variation in performance of SACCO was explained by the independent variable. The small difference between R^2 and Adjusted R^2 suggests that the model was stable and had good explanatory power.

Table 5: Model Fitness Results

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	83.859	1	83.859	260.329	.000b
Residual	40.910	127	.322		
Total	124.769	128			

Results on Table 5 for the F test to check for significance of the fitted regression model. The F value statistics ($F_{1,127} = 260.329$), and significance levels of $p=0.000$ indicating the fitness of the model. These infer that the regression model fitted the dataset and the equation was significant.

Table 6: Regression Coefficient

	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	.783	.167		4.693	.000
Data management systems	.249	.091	.243	2.732	.007

The resulted regression equation is:

$$Y = 0.783 + 0.249X_1$$

It was also observed that data management systems positively and significantly influence the performance of SACCOs in Uasin Gishu County ($\beta_1 = 0.249$, $p = 0.007$). In other words, when there is an increase of one unit in data management systems, the performance of SACCOs in Uasin Gishu County increases by 0.249 units.

Hypothesis H_{01} states that data management systems have no significant effect on performance of SACCOs in Uasin Gishu County, Kenya. The regression results in Table 6 indicate that there is a significant relationship between data management systems and performance of SACCOs in Uasin Gishu County, Kenya ($\beta = 0.249$, $p = 0.007$). Since the p-value is less than 0.05, the study rejected the null hypothesis and concluded that data management systems have significant effects on performance of SACCOs in Uasin Gishu County, Kenya. These results concur with Murungi et al. (2025) that a risk avoidance strategy streamlines processes and implements best practices leading to improved operational efficiency, reducing costs and enhancing service delivery to members. A strong risk reduction strategy demonstrates a commitment to safeguarding members' investments which strengthen trust and loyalty among members, resulting in higher retention rates and attracting new members.

CONCLUSION

The study concluded that there exists a strong, positive and statistically significant correlation between data management systems and performance of SACCOs in Uasin Gishu County, Kenya. This implies that secure storage of member information, quick retrieval of records, enhanced data security and confidentiality, reduced manual errors, regular system updates and support for informed decision-making improve performance of SACCOS. Thus, suggesting that to enhance security in the storage of the information about the members, SACCOs may consider investing in effective data management systems in order to offer rapid access to the records and enhanced data analysis. This will improve the decision making, minimize the errors that are related to manual systems and also improve performance of SACCOS.

REFERENCES

- Adebayo, O., & Oyeleke, J. (2020). The impact of e-commerce adoption on SACCO performance in Nigeria. *Journal of Business Research*, 18(3), 45-60.
- Atsiaya, S. A., & Bwire, F. J. (2024). Information Technology Shared Services Adoption and Performance of Savings and Credit Cooperative Societies (SACCOS) in Kenya. (Dissertation, Moshi Co-operative University).
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120. <https://doi.org/10.1177/014920639101700108>
- Chinyere, J. O., & Ikoromasoma, E. (2021). Data management system and organizational efficiency of deposit money banks in Port Harcourt, Rivers State. *Nigerian Journal of Management Sciences*, 22(2).
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/249008>
- Fernandez, J. J. R., Lambinico, J. S., & Fernandez, J. M. (2025). Implementation of Manual Records Management System: Basis for Proposed Web-based Records Management System. *International journal of advanced multidisciplinary studies*, 5 (6), 930-936
- Guterman, A. S. (2023). Organizational performance and effectiveness. Available at SSRN 4532570.
- Hakizimana, S., Wairimu, M. M. C., & Stephen, M. (2023). Digital banking transformation and performance-where do we stand? *International Journal of Management Research and Emerging Sciences*, 13(1).

- Harwood, D., Turner, A., & Smith, E. (2020). The effect of CRM systems in improving cost efficiency for credit unions in Australia. *Australian Financial Review*, 37(6), 230-245.
- Hosen, M. S., Islam, R., Naeem, Z., Folorunso, E. O., Chu, T. S., Al Mamun, M. A., & Orunbon, N. O. (2024). Data-driven decision making: Advanced database systems for business intelligence. *Nanotechnology Perceptions*, 20(3), 687-704.
- Jones, T., & Davis, P. (2020). The effect of e-commerce platforms on cooperative performance in the UK. *International Journal of Cooperative Business*, 28(4), 98-112.
- Mensah, A., & Asante, A. (2020). The impact of CRM systems on customer loyalty in SACCOs in Ghana. *International Journal of Banking & Finance*, 16(2), 76-92.
- Mittal, K. (2025). *Leveraging Artificial Intelligence to enhance customer service in cooperative banks in India*. (Thesis, Tampere University of Applied Sciences)
- Moyo, M., Kweyu, D., & Kasongo, B. (2019). The impact of CRM systems on SACCO performance in South Africa. *Journal of Business Development*, 23(4), 157-172.
- Murungi, D. K., & Muchemi, A. (2025). Risk management strategies and organizational performance of deposit taking SACCOs in Kiambu County, Kenya. *The Strategic Journal of Business & Change Management*, 12(2), 1601-1621.
- Mutua, V. (2024). *Strategic change management and performance of deposit taking Savings and Credit Co-operative Societies in Nairobi City County, Kenya* (Doctoral dissertation, ANU).
- Mweu, R. M., & Mose, T. (2024). Information And Communications Technology (Ict) Integration and Performance of Savings & Credit Co-Operatives (Saccos) In Agriculture Sector in Kiambu County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 8(3).
- Nisar, Q. A., Nasir, N., Jamshed, S., Naz, S., Ali, M., & Ali, S. (2021). Big data management and environmental performance: role of big data decision-making capabilities and decision-making quality. *Journal of Enterprise Information Management*, 34(4), 1061-1096.
- Odhiambo, S. (2020). The effects of digital marketing on SACCO performance in Nairobi. *African Journal of Business Research*, 11(1), 55-71.
- Odinga, J. (2020). The effect of e-commerce in boosting SACCO performance in Western Kenya. *Kenya Journal of Financial Management*, 15(4), 118-134.
- Okoro, C., Nwachukwu, T., & Onyekachi, E. (2021). Customer relationship management and its impact on profitability in Nigerian SACCOs. *Journal of African Business*, 19(3), 182-200.
- Smith, M., & Ndlovu, A. (2020). Digital transformation in South African SACCOs: A case study. *International Journal of Digital Banking*, 12(2), 45-58.
- Smith, R., & Turner, L. (2021). The impact of CRM systems on member satisfaction in Australian credit unions. *Journal of Cooperative Finance*, 33(6), 98-111.
- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper and Row.