The mediating effect of technological innovation on accounts receivable management and performance of listed firms in Nairobi Securities Exchange

Cyrus Machini Ombuna [1]
Kennedy Okiro [2]
Ronald Chogii [3]

[1] ombunamachni@gmail.com

[1,2,3] University of Nairobi

https://doi.org/10.51867/asarev.3.1.31

ABSTRACT

Accounts receivable management is regarded as critical in determining corporate financial performance. However, empirical findings remain inconclusive, with limited evidence explaining the mechanisms underlying this relationship. In particular, existing studies have largely examined technological innovation as an independent predictor or moderator rather than as an intervening mechanism. This study addressed the conceptual, contextual, and methodological gaps by examining the mediating effect of technological innovation on the relationship between accounts receivable management and financial performance among firms listed on the Nairobi Securities Exchange (NSE). Guided by a positivist philosophy and a descriptive longitudinal panel design, the study employed a census of 48 non-banking firms listed in 2023. Secondary panel data (2019-2023) were analyzed. Data was analyzed using descriptive statistics, correlation, and mediation regression. The correlation results revealed a strong positive and statistically significant relationship between accounts receivable management and financial performance ($r = .856$, $p < .05$), while technological innovation also exhibited a moderate positive and significant association with financial performance ($r = .525$, $p < .05$). A significant positive indirect relationship was established between accounts receivable management and financial performance through technological innovation ($B = 0.127$, BootSE = 0.048, 95% CI [0.036, 0.223]). The direct relationship between accounts receivable management and financial performance remained statistically significant after controlling for technological innovation ($B = 0.387$, $p < .05$). Technological innovation partially mediates the relationship between accounts receivable management and financial performance. It is concluded that technology complements effective receivables practices. Firms should strengthen credit management and adopt digital invoicing, automated payment systems, and credit-risk assessment tools, supported by employee training. Policymakers should encourage technology adoption through tax incentives and targeted grants. Future research should investigate additional mediating mechanisms, use broader innovation indicators, integrate firm-specific characteristics, and utilize lagged panel models to capture dynamic relationships and strengthen causal inference
.

Keywords: Accounts Receivable Management, Financial Performance, Listed Firms, Mediation, Profitability, Nairobi Securities Exchange, Technological Innovation

I. INTRODUCTION

In competitive markets, where it firms are forced to sell services or goods on credit to stimulate sales, maintain customer relationships, and strengthen revenue generation, aspects like accounts receivable management significantly influence corporate financial performance. It is only with effective credit management systems that an organization can gain the financial benefits of credit sales. Managers need to critically assess potential debtors, effectively monitor payments, and collect debts appropriately. As noted by Mukherjee (2014) and Karadağ and Selimler (2014), a firm's profitability is likely to be limited by debt in case the receivables are excessive, collections delayed, and nonpayment. The reason is that liquidity is constrained and financing costs inflated despite the potential for increased sales. Accounts receivable management (ARM) is not a mere routine working capital function. \

It should be regarded as practice that results in excellent financial performance, especially when it is adopted strategically through the effective creation of balance between credit expansion and collection risks. The relationship between credit offers, collection systems, and financial performance is important for firms listed on the Nairobi Securities Exchange (NSE). The reason is that such firms face persistent financial performance challenges (NSE, 2019). For instance, some firms report declining returns and substantial losses, and this calls for an evaluation of the effectiveness of existing financial management practices.

There is no empirically conclusive stance that universally explains how accounts receivable management and financial performance are correlated, despite the importance of the former. For instance, Munene et al. (2018) and Naushad et al. (2026) had indicated that efficient receivables management and profitability are positively associated. Conversely, Samiloglu and Demirgünes (2008), and Manyo and Ike (2013) assert that the two constructs have a negative association. Further confusion is caused by Kebewar (2013), who indicates that there exists a non-linear

© 2026 Author(s). This article is licensed under the Creative Commons Attribution–NonCommercial 4.0 International License (CC BY-NC 4.0).

relationship between financial performance and accounts receivable management. In such cases, benefits can only be derived if credit extensions are followed with effective collection strategies. However, the most important inference from these conflicting findings is that financial performance is not fully and solely explained by accounts receivables management. Probably, an organization's capability, particularly the capacity to deploy technological innovations that improve the administration and recovery of outstanding debts could determine the level of performance in an entity.

With advances in the adoption of digital systems, the management of finance is presently characterized by technological innovations like automated invoicing, electronic payment platforms, cloud-based accounting systems, and artificial intelligence-driven credit assessments. Therefore, organizations can process transactions in real-time, evaluate customers' credit scores effectively, adopt automated payment reminders, and even monitor unpaid accounts more closely and in a seamless manner (Štangová & Víghová, 2021; Norboyev, 2024). Since such automatic processes reduce errors, delays, and doubtful debts, the operational effectiveness of accounts receivable management improves significantly. It is easier and faster to recover cash, and this strengthens the organization's liquidity, and eventually, profitability. However, superior financial outcomes are not guaranteed just because of technology adoption. As noted by de Vries (2010), factors like the expenses of implementation, the readiness of the management and employees, and the integration ability of technological systems into existing financial management processes influence the magnitude of the benefits.

Considering the established relationships, it is expected that technological innovation could explain how financial performance is influenced by accounts receivable management in addition to being an independent determinant of the former. There have been studies focusing on technological innovation, accounts receivable management, and financial performance (Owuor et al., 2021; Singh et al., 2021). However, limited empirical attention has been directed towards establishing the mediating mechanism linking the three variables within NSE-listed firms. Therefore, an important empirical and conceptual gap exists, given the contradictory evidence on the accounts receivable management performance relationship. Accordingly, this study examines the mediating effect of technological innovation on the relationship between accounts receivable management and financial performance among firms listed on the NSE. By investigating this intervening mechanism, the study contributes to agency theory, operating cycle theory, and cash conversion cycle theory, while providing practical insights for corporate managers, investors, and capital market regulators on integrating receivables management with technological capabilities to strengthen financial performance.

1.1 Research Objective

To determine whether technological innovation mediates the relationship between accounts receivable management and the performance of firms listed on the Nairobi Securities Exchange.

II. LITERATURE REVIEW

2.1 Theoretical Review

The transmission of the effect of accounts receivable management to financial performance by technological innovation can be explained by the cash conversion cycle (CCC) theory. Richards and Laughlin (1980) defined the CCC as the inventory conversion period plus the receivables collection period less the payables deferral period, which converts working capital decisions into the number of days for which a firm must finance its own operations. Based on the model, credit terms and collection efforts are set by accounts receivable management. On the other hand, it under the influence of technologies like electronic invoicing, automated reminders, and digital payment platforms that speed of conversion of the terms into cash is determined. With a shorter receivables period, the financing burden is lower. Therefore, cash is released for productive use, and this results in higher returns, consistent with the assertions by Jose et al. (1996). From this logic, the mediation logic is created. The reason is that it is presumed that performance is partly affected receivables policy because the latter shapes investment in collection technology, and that technology in turn shortens the cycle.

However, the CCC theory is largely a measurement rather behavioural framework. The reason is that the model explains why the number of days it takes to collect debts matter but fails to indicate the reason for managers' decisions to adopt technology in evaluating, monitoring, and claiming what is owed. It is also presumed that a shorter cycle always improves performance. However, as found by Kroes and Manikas (2014), changes in the CCC may not track changes in their financial performance. In the NSE firms' context, the companies usually offer credit mainly to retain customers. One of the critical issues that should be considered is the interplay between the number of days and the cost of reducing them. The reason is that a firm can invest heavily in credit-scoring and payment systems in order to shorten its cycle, but at the same time, lower its margins. Therefore, the mediating pathway is anchored in the CCC theory. It should be empirically tested whether the cost of implementing technology is lower than the collection days saved in the process.

© 2026 Author(s). This article is licensed under the Creative Commons Attribution–NonCommercial 4.0 International License (CC BY-NC 4.0).

2.2 Empirical Review

The existing literature on the importance of accounts receivable management shows mixed signals. For instance, the study by Wanzala and Obokoh (2024) on NSE-listed commercial and services firms established that weaker financial performance and a longer average collection period are associated. In this case, return on assets, return on equity, and net operating profit margin were used as the measured for financial performance. On the other hand, the assessment of 9 NSE manufacturing firms by Otieno and Lenaituriai (2024) found a weak positive correlation between receivables and return on assets. On the contrary, working capital management among the 13 construction firms listed on the Johannesburg Stock Exchange did not consistently produce higher profitability, as established by Sejake et al. (2024). However, Court and Ogbolo (2024) found a positive effect of receivables management on the financial sustainability. Despite the insights from these studies, none of them included technology. Moreover, the results are inconsistent, which means that an unmeasured mechanism lies between receivable policy and performance.

Regarding technology Zhao et al. (2024) found that Chinese A-share firms with higher receivables ratios were more inclined to undertake digital transformation over 2007 to 2021. The results support the first path of a mediation model, from receivables to technology. Reverse causality is also implied by the same results. The reason is that receivable pressure drives technology adoption. A cross-sectional estimate may, therefore, overstate the indirect effect. Qiao et al. (2024) showed that Industry 4.0 adoption among Chinese listed manufacturers expanded trade credit by raising productivity and strengthening internal controls. Abdulai et al. (2024) found that digital payment platforms increased the likelihood of credit extension by informal Ghanaian firms to their customers. Technology may therefore enlarge receivables rather than reduce them. The implication is that technology's effect on performance could operate through higher sales rather than faster collection.

Most of the existing studies have tested innovation as a moderator. For instance, Zhou et al. (2025) reported that corporate innovation magnified the negative effect of net working capital on the profitability of Chinese high-technology manufacturers. Kundu et al. (2022) found that investors did not penalize innovative Indian firms for inefficient working capital management. The design of the study by Scafarto et al. (2023) was the closest to mediation. The researchers found that capital-employed efficiency fully mediated the effect of digitalisation on the financial performance of European Union healthcare firms. However, under the model, technology was the predictor rather than the mediator. Treating innovation as a moderator shows whether technology changes the strength of the receivables effect, not whether that effect passes through technology.

Considering the literature, there are gaps that should be filled. First, technological innovation was never tested as the channel through which receivables management affects performance by any of the reviewed studies, creating a conceptual gap. Secondly, the technology evidence comes mainly from China, India, and Europe, while Kenyan studies omit technology altogether, resulting in a contextual gap in the literature. Finally, the reverse causality exposed by Zhao et al. (2024) means that mediation should be tested with panel data in which receivable policy precedes technology adoption, meaning there exists a methodological gap. Accordingly, this study addresses these gaps by testing the mediating role of technological innovation among NSE-listed firms using audited secondary panel data.

III. METHODOLOGY

3.1 Research Philosophy and Design

The study was guided by positivism approach since the research is grounded on the existing theory and tested a quantitative hypothesis. The study was based on the belief that an objective reality that can be objectively investigated without interfering to the phenomena under the study (Cohen & Crabtree, 2006). Therefore, the association and interactions of accounts receivable management, technological innovation, and the financial performance of firms listed in NSE could be explained. A descriptive longitudinal panel research design was adopted. Data was collected from multiple organisations simultaneously to examine the relationships among the study variables. The design fits the study objectives, scope, data type, and analytical methods, which include determining the mediating effect of technological innovation on the relationship between accounts receivable management and performance of the listed firms in Nairobi Securities Exchange. Data was corrected and analyzed statistically to ensure objectivity (Cooper & Schindler, 2006). The selected design was the most practical, efficient, and methodologically sound.

3.2 Target Population of the Study

The target population for this study comprised all non-bank companies listed on the Nairobi Securities Exchange (NSE) as of December 31, 2023. These are firms for which accounts receivable arises primarily from the sale of goods or services on credit to customers, as opposed to financial institutions where receivables take the form of loans and advances under different regulatory and accounting frameworks. The study targeted all the firms with complete audited financial data for the five-year study period (2019-2023).

© 2026 Author(s). This article is licensed under the Creative Commons Attribution–NonCommercial 4.0 International License (CC BY-NC 4.0).

3.3 Data Collection

The study relied entirely on secondary data sourced from all non-bank firms listed on the Nairobi Securities Exchange (NSE). The data collection period spanned five financial years, from 1 January 2019 to 31 December 2023. For each eligible firm, data was extracted from the audited balance sheets, income statements, cash flow statements, and notes to the accounts. Accounts receivable management indicators, namely, cost of investment in accounts receivables, proportion of provision for doubtful debts write-offs, and average age of accounts receivables, were derived from trade receivables schedules and aging analyses. Technological innovation was measured using research and development expenditure information obtained from income statements or notes and disclosures on patentable products or processes from annual reports.

Financial performance, which was measured through metrics like return on assets, return on equity, and return on capital employed. The information was computed directly from the financial statements. Data extraction was performed using a structured data collection sheet to ensure consistency, and all entries were cross-checked against original filings for accuracy. The secondary nature of the data eliminated respondent bias, ensured objectivity, and allowed replication of the study.

3.4 Operationalization of Research Variables

The study variables include account receivable management, technological innovation, and financial performance. Account receivable management was operationalized in terms of cost of investment in accounts receivables, proportion of provision for doubtful debts write-offs, and average age of accounts receivables. Technological innovation was operationalized in terms of processes innovation, products innovation, and research and development expenditures. Financial performance was operationalized in terms of return on assets (ROA), return on capital employed (ROCE), and return on equity (ROE).

3.5 Data Analysis

The collected secondary data was processed, structured, and analyzed systematically to facilitate the communication of findings and the outcomes of hypothesis testing. Both descriptive and inferential statistics were used in the data analysis for this study in order to provide a thorough understanding of the data. To summarize and characterize the features of the dataset, descriptive statistics including frequency distributions, mean scores, and standard deviations were employed. Before conducting regression analyses, key assumptions including normality, multicollinearity, and homoscedasticity were conducted to determine the validity and dependability of the regression models. Also, composite indices for each variable were calculated to ensure accurate interpretation. Hypotheses were assessed at 95% confidence level using basic and mediation regression analyses to determine relationships between variables.

IV. FINDINGS & DISCUSSION

4.1 Findings

4.1.1 Descriptive Statistics Results

Table 1 shows the descriptive statistics summaries of the data from the 48 companies that were studied. Data was collected within a five-year, between 2019 and 2023, making a total of 240 observations.

Table 1

Descriptive Statistics Summaries

	N	Min	Max	Range	Mean	Std. Dev	Skewness	Kurtosis
ARM	240	6.10	7.06	.96	6.58	.30	-.13	-1.07
TI	240	6.00	6.72	.72	5.84	.26	.15	-1.36
FP	240	9.00	10.00	1.00	9.50	.50	.02	-2.02

The descriptive statistics summaries revealed minimal variation in the accounts receivables management (ARM) of Kes 0.96 million. For technological innovation (TI), the mean was Kes 5.84 million. Regarding financial performance (FP), which represented ROA, ROE, and ROCE, the mean was 9.49%, implying that, on average, the reviewed firms had a return of between 9% and 10%.

4.2 Diagnostic Test Results

Diagnostic tests were executed to ascertain whether the data distribution met the assumptions for inferential statistical analyses. Normality Test: The analysis on the normality of the data distribution was done through the evaluation of the normal Q-Q plots.

© 2026 Author(s). This article is licensed under the Creative Commons Attribution–NonCommercial 4.0 International License (CC BY-NC 4.0).

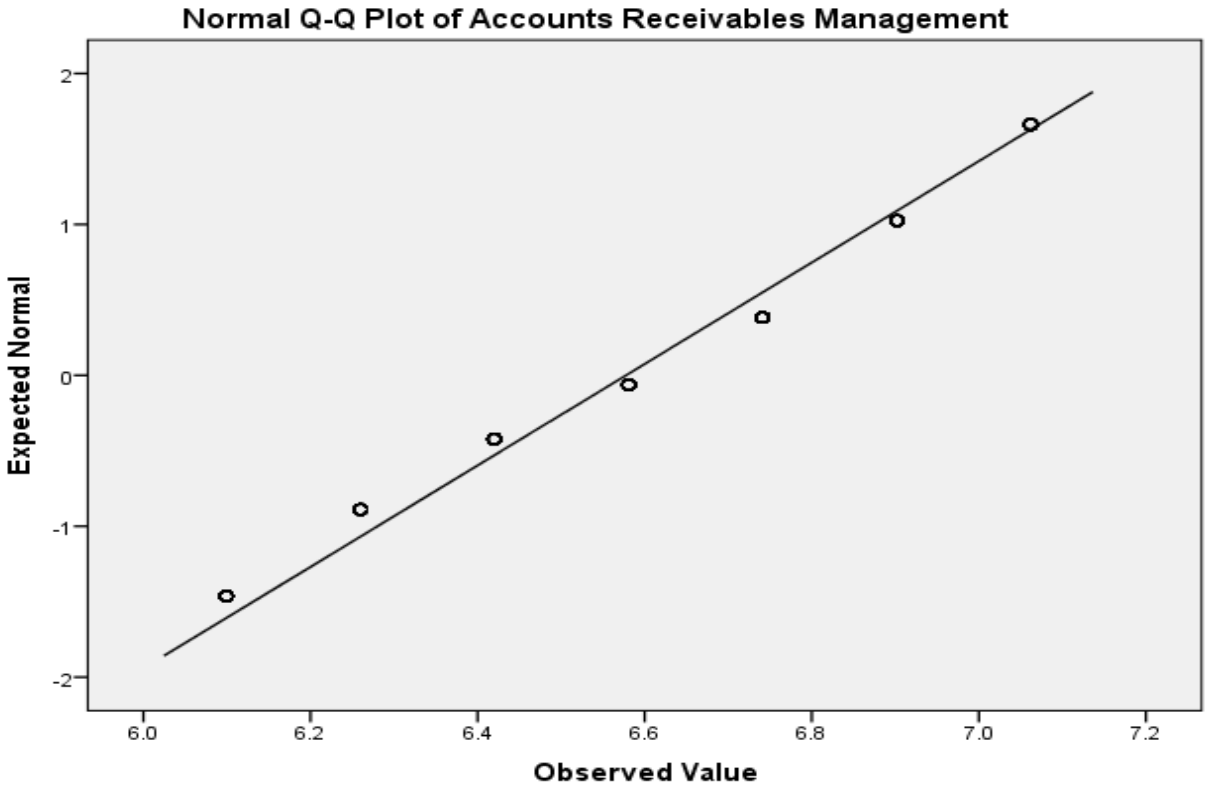

Figure 1
Normal Q-Q Plot – Accounts Receivables Management

The Q-Q plot for Accounts Receivables Management revealed that the distribution is neither perfectly symmetric nor entirely normal, but the deviations are limited to a small number of observations. Given that only six out of 240 points depart modestly from the reference line, the assumption of approximate normality is considered tenable for parametric analyses, particularly when complemented with robust standard errors to mitigate any residual non-normality.

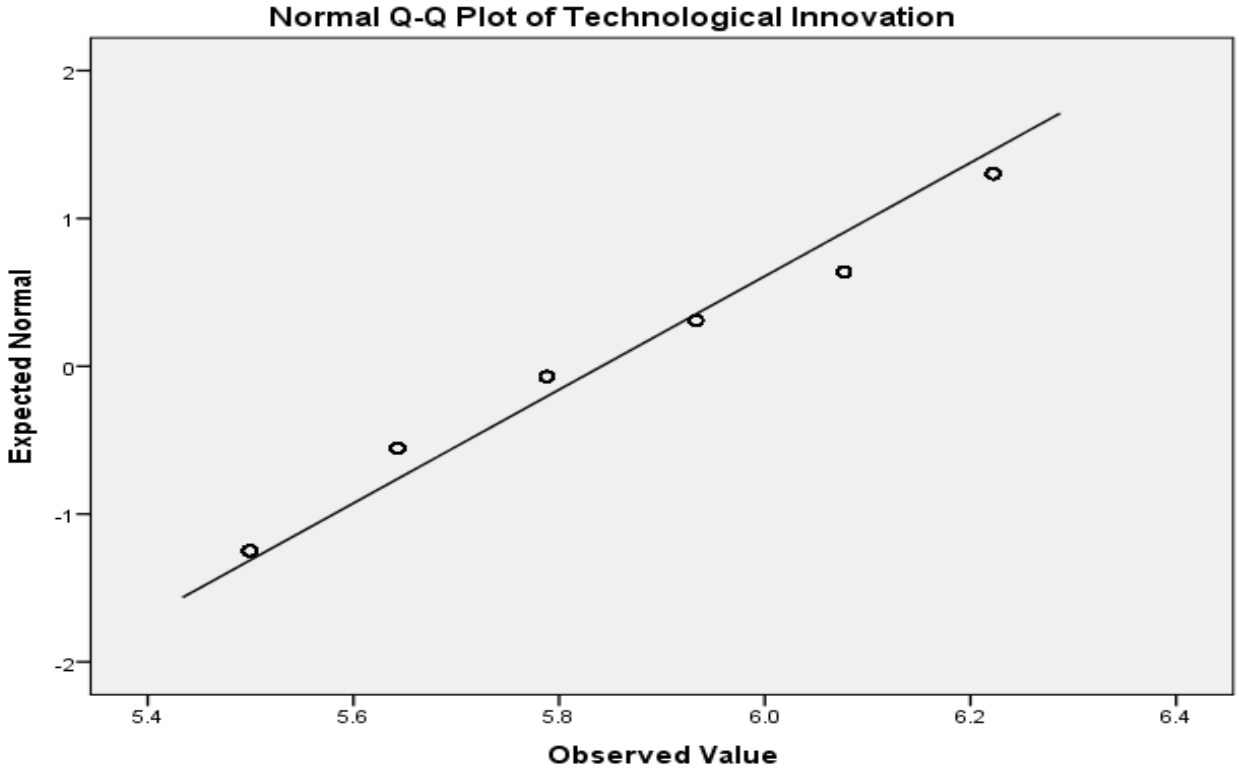

Figure 2
Normal Q-Q Plot – Technological Innovation

© 2026 Author(s). This article is licensed under the Creative Commons Attribution–NonCommercial 4.0 International License (CC BY-NC 4.0).

The Q-Q plot for Technological Innovation showed absence of extreme outliers or systematic curvature away from the reference line and this meant that the departures from normality are minimal and balanced. For a sample of 240 observations, such minor tail deviations are unlikely to distort regression estimates or significance tests, especially when robust inference techniques are applied. Therefore, the normality assumption for TI was judged to be reasonably satisfied.

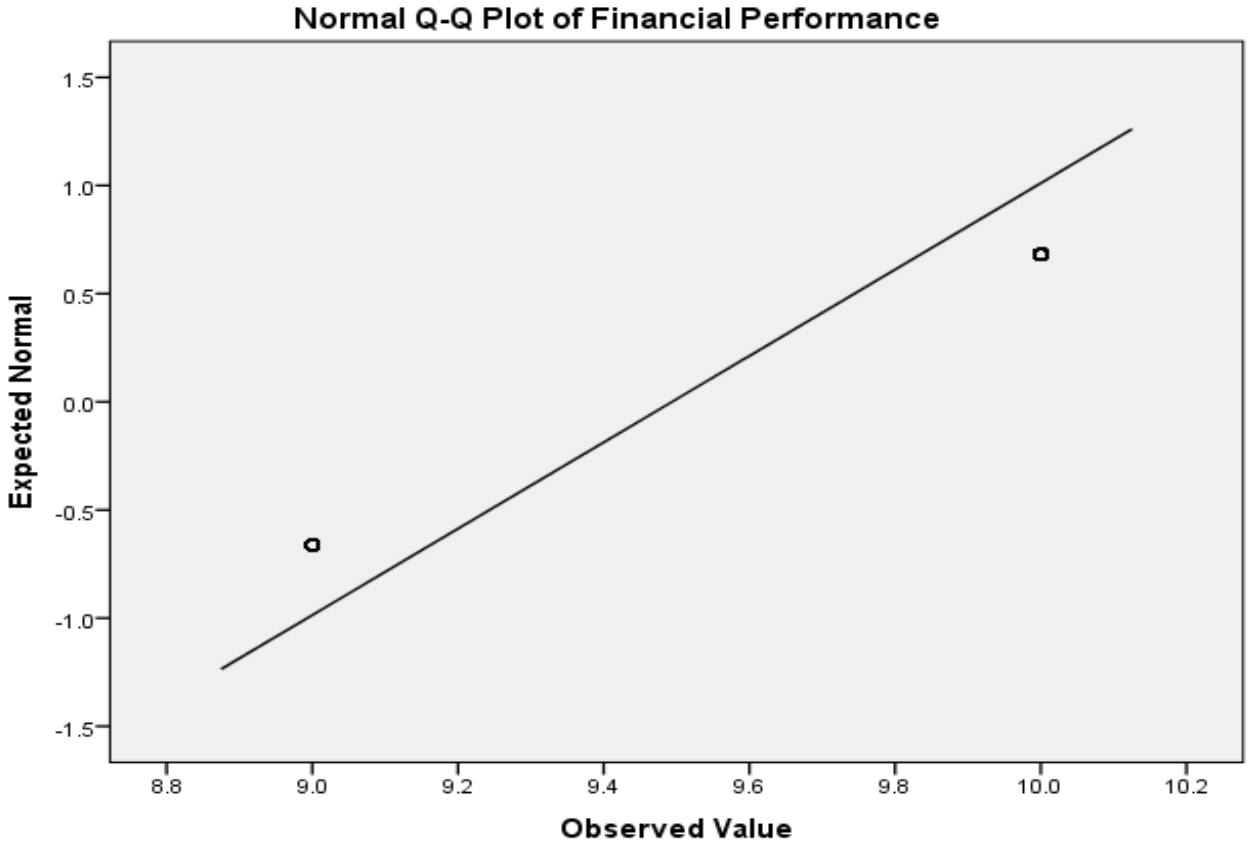

Figure 3
Normal Q-Q Plot – Financial Performance

The Q-Q plot for Financial Performance revealed isolated deviations in the tails, indicating the distribution is overwhelmingly normal, with only two observations exhibiting slight departures from the expected quantiles. The near-perfect alignment of the vast majority of points with the reference line provides strong evidence that the FP variable follows an approximately normal distribution.

4.2.1 Heteroscedasticity Test

Heteroskedasticity was examined in the study using the Breusch-Pagan test. After running the auxiliary regression, the R^2 value was 0.109. Given that n was 240, the Breusch-Pagan (BP) Statistic was determined as:
$BP = n \times R^2 = 240 \times 0.109 = 26.16$ The χ^2 critical value at 5% with 1 df is usually 3.84 Based on the established BP of 26.16, which was greater than 3.84, the null hypothesis of homoskedasticity was rejected. However, the issue of heteroscedasticity was addressed by estimating all models using heteroscedasticity-robust standard errors, and this ensured valid statistical inference.

4.2.2 Multicollinearity

The Variance Inflation Factor (VIF) was used in the study to test for multicollinearity.

© 2026 Author(s). This article is licensed under the Creative Commons Attribution–NonCommercial 4.0 International License (CC BY-NC 4.0).

Table 2
Collinearity Results

Coefficients[a]			
Model		**Collinearity Statistics**	
		Tolerance	**VIF**
1	Accounts Receivables Management	.242	4.126
	Technological Innovation	.345	2.896
	Firm Characteristics	.134	7.440

a. Dependent Variable: Financial Performance

The results, VIF values, ranged from 2.896 to 7.440. Since all were below the recommended threshold of 10, there was no problem of multicollinearity. Tolerance values exceeded 0.10, and this means that multicollinearity was not severe and could not threaten the reliability of the regression estimates, as suggested by Gujarati (2003).

4.2.3 Serial Correlation

The study used the Durbin-Watson statistic to detect autocorrelation.

Table 3
Durbin-Watson Statistic Results

Model Summary[b]					
Model	**R**	**R^2**	**Adjusted R^2**	**Std. Error of the Estimate**	**Durbin-Watson**
1	.902[a]	.813	.811	.21743	2.337

a. Predictors: (Constant), Firm Characteristics, Technological Innovation, Accounts Receivables Management
b. Dependent Variable: Financial Performance

As per the results, the Durbin-Watson Statistic was 2.337, which was very close to 2, the acceptable threshold. This indicated the absence of serial correlation in the residuals. Therefore, the assumption of absence of autocorrelation accepted, and the null hypothesis of no serial correlation is not rejected. Therefore, the data was appropriate for further inferential statistics analyses.

4.3 Correlation Analysis Results

A Pearson correlation analysis was conducted to examine the relationships between Accounts Receivable Management (ARM), Technological Innovation (TI), and Financial Performance (FP).

Table 4
Correlations

		Accounts Receivable Management	Technological Innovation	Financial Performance
Accounts Receivable Management	r	1		
	p			
	N	240		
Technological Innovation	r	.503*	1	
	p	.000		
	N	240	240	
Financial Performance	r	.856*	.525*	1
	p	.000	.000	
	N	240	240	240

The results revealed that ARM had a strong, positive, and statistically significant correlation with FP ($r = 0.856$, $p < 0.05$, $N = 240$). The established correlation directly supports the Cash Conversion Cycle Theory's (Gitman, 1974) prediction that firms with better receivables management, for example, lower cost of investment, lower provision for doubtful debts, and shorter average age, experience higher financial performance. Moreover, the Operating Cycle Theory (Weston, 1979; Richards, 1980) complements this finding by emphasising that credit and collection policies directly affect the average level of accounts receivable relative to annual sales. The results are consistent with Court and Ogbolo (2024), Baafi et al. (2024), Otieno and Lenaituriai (2024), Wanzala and Obokoh (2024), and Kwamboka et al. (2025), who found that accounts receivable management had a significant positive effect on financial sustainability. The results contradict those of Sejake et al. (2024), who found negative association between accounts receivable management and financial performance. Similarly, technological innovation demonstrated a moderate, positive, and significant correlation with financial performance ($r = 0.525$, $p < 0.05$, $N =$

© 2026 Author(s). This article is licensed under the Creative Commons Attribution–NonCommercial 4.0 International License (CC BY-NC 4.0).

240). Improvements in accounts receivable management and technological innovation are associated with higher financial performance. The results are in agreement with those of Zhao et al. (2024), Qiao et al. (2024), and Abdulai et al. (2024).

However, technology alone does not guarantee high financial performance because its effectiveness may depend on how well it is integrated with other organisational resources, such as sound accounts receivable management practices and favorable firm characteristics. Managers may invest in technology for self-serving reasons, for example, boosting short-term sales without ensuring that the technology actually improves receivable collection efficiency. Thus, while technological innovation is positively associated with financial performance, its weaker correlation compared to accounts receivable management indicates that technology is an enhancer rather than a primary driver. However, the established positive correlation contrasts Githiga (2023), Karuitha (2024), and Al Hadi and Al Khater (2024), who found a strong inverse relationship between the accounts receivable collection period and firm performance.

4.4 Mediation Analysis Results

An examination of whether technological innovation (TI) mediates the relationship between accounts receivable management (ARM) and financial performance (FP) was carried out. PROCESS Macro Model 4 (Hayes, 2022) was employed, using 5,000 bootstrap resamples and 95% confidence intervals. The analysis was based on 240 observations and assessed the total, direct, and indirect relationships among the study variables.

Table 5

Regression Results for the Mediation Pathways

Path	Relationship	B	SE	β	t	F	p	R^2
c	ARM → FP (Total effect)	0.514	0.022	0.837	23.592	556.603	< .05	0.700
a	ARM → TI	0.497	0.015	0.901	32.109	1031.018	< .05	0.812
b	TI → FP (controlling for ARM)	0.256	0.090	0.229	2.842	290.616	.005	0.710
c′	ARM → FP (controlling for TI)	0.387	0.050	0.630	7.806	290.616	< .05	0.710

A significant positive relationship was established between accounts receivable management and financial performance in the initial regression (B = 0.514, SE = 0.022, β = 0.837, t = 23.592, $p < .05$). Accounts receivable management explain 70.0% of the variation in financial performance, given the R^2 value of 0.700, meaning the former is a strong predictor of the latter. A strong and statistically significant positive relationship was also established between accounts receivable management and technological innovation (B = 0.497, SE = 0.015, β = 0.901, t = 32.109, $p < .05$). As per the model, 81.2% of the variation in technological innovation is explained by accounts receivables management ($R^2 = 0.812$). Therefore, stronger accounts receivable management practices are associated with higher levels of technological innovation.

The overall model, which contained accounts receivable management and technological innovation as predictors of financial performance, was statistically significant, $F (2, 237) = 290.616$, $p < .05$. Combined, accounts receivable management and technological innovation, explain 71.0% of the variation in financial performance ($R^2 = 0.710$). The results showed that accounts receivable management maintained a significant positive direct relationship with financial performance after introducing technological innovation (B = 0.387, SE = 0.050, β = 0.630, t = 7.806, $p < .05$). The relationship remained statistically significant, but the coefficient declined from 0.514 in the total-effect model to 0.387 in the direct-effect model. Technological innovation also exhibited a significant positive relationship with financial performance after controlling for accounts receivable management (B = 0.256, SE = 0.090, β = 0.229, t = 2.842, p = .005). Therefore, technological innovation contributes to explaining financial performance beyond the direct relationship associated with accounts receivable management. The indirect relationship was assessed using bootstrapping with 5,000 resamples and 95% confidence intervals.

Table 6

Summary of Bootstrapped Indirect Effect

Relationship	Mediator	Indirect Effect	BootSE	BootLLCI	BootULCI
Indirect Effect	TI	0.127	0.048	0.036	0.223
Completely Standardized Indirect Effect	TI	0.207	0.077	0.059	0.362

A positive indirect effect of accounts receivable management on financial performance through technological innovation was established (B = 0.127, BootSE = 0.048). The bootstrapped 95% confidence interval was between 0.036 and 0.223. The indirect effect is statistically significant because the interval does not contain zero. Therefore, the mediating role of technological innovation on accounts receivable management and financial management was

© 2026 Author(s). This article is licensed under the Creative Commons Attribution–NonCommercial 4.0 International License (CC BY-NC 4.0).

confirmed. On the other hand, the completely standardized indirect effect was 0.207 (BootSE = 0.077), with a 95% confidence interval of between 0.059 and 0.362. The results further confirmed the positive indirect relationship.

In sum, it was found that technological innovation partially mediates the relationship between accounts receivable management and financial performance. Given the significant indirect effect, it was confirmed that part of the accounts receivable management-financial performance relationship operates through technological innovation. The continued significance of the direct relationship indicates that there are other pathways through which accounts receivable management relates to financial performance. Overall, accounts receivable management is directly and indirectly associated with financial performance through technological innovation.

Technological innovation acts as a complementary capability that enhances the value of sound accounts receivable management practices but does not fully absorb its influence. Advanced technological systems such as automated invoicing, digital credit monitoring, and electronic payment platforms improve ARM efficiency while also providing an additional pathway to financial performance. Overall, the results are in agreement with Scafarto et al. (2023) and Kundu et al. (2022), who found that technology mediates the relationship between accounts receivables management and financial performance. The findings are also supported by Otieno and Lenaituriai (2024), who found that not all working capital components uniformly affect performance. However, the results disagree with those of Zhou et al. (2025) and Zhao et al. (2024), who found a negative indirect effect of technological innovation on accounts receivable management and how it influences financial performance. Therefore, while technological innovation partially mediates the accounts receivable management-financial performance relationship in a bivariate mediation context, its net contribution becomes negative when firm characteristics are accounted for, indicating that the benefits of technological innovation are contingent on the presence of other favorable conditions such as strong accounts receivable management practices and advantageous firm characteristics.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The study established that there exists a partial mediation by technological innovation on accounts receivables management and financial performance. The indication is that process innovation complements accounts receivable management. Moreover, separately, accounts receivable management and technological innovation are positively correlated with financial performance. It is essential to model how operational, technological, and structural resources interact and treat innovation as contingent, including interactions and non-linearities. Based on the indirect effect findings, there are unobserved mediators of receivables management and financial performance.

5.2 Recommendations

It is recommended that policymakers need to offer tax credits, grants, and subsidized digital transformation, while encouraging firms to strengthen foundational receivables processes first. The reason is that technology alone may not produce immediate returns without sound receivables management practices. Firms should adopt technology as a complementary resource. Therefore, e-invoicing, automated payments, credit-risk tools should be adopted while investments in training and change management are also necessary. Future research should test multi-mediator models, such as operational efficiency, customer satisfaction, supply-chain integration, and organizational learning. There is a need to use broader technological innovation measures like R&D intensity, patents, digital transformation indices, and fintech adoption. Finally, refining models for firm characteristics and applying longitudinal or panel designs with lagged variables would strengthen causal inference and capture dynamic trends.

Declaration of Interest

The authors declare that they do not have any known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding Declaration

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

REFERENCES

Abdulai, M. G., Dary, S. K., & Domanban, P. B. (2024). Adoption of digital payment platforms and trade credit activities among informal firms in Ghana. *Heliyon*, *10*(11), e32302. https://doi.org/10.1016/j.heliyon.2024.e32302

© 2026 Author(s). This article is licensed under the Creative Commons Attribution–NonCommercial 4.0 International License (CC BY-NC 4.0).

Al Hadi, A., & Al Khater, A. (2024). The impact of accounts receivable management on profitability of manufacturing firms listed on the Saudi Stock Exchange. *Journal of Risk and Financial Management (JRFM), 17(1), 16-31*. https://doi.org/10.3390/jrfm17010016

Baafi, J. A., Sarkodie, E. E., Doudu, J. K., & Kumah, S. P. (2024). Why should we pay attention to working capital management? A case of Ghana. *Businesses*, *4*(1), 78–95. https://doi.org/10.3390/businesses4010006

Cohen, D., & Crabtree, B. (2006). Qualitative research guidelines project. *Practical assessment, research, and evaluation*, *11*(1), 1-19.

Cooper, D. R., & Schindler, P. S. (2006). *Business research methods* (9th ed.). McGraw-Hill.

Court, T. O., & Ogbolo, K. B. (2024). Working capital management and financial sustainability of small and medium enterprises in Bayelsa State. *African Journal of Economics and Sustainable Development*, *7*(4), 236-246. https://doi.org/10.52589/AJESD-OS6X9ZIA

De Vries, M. (2010). The role of innovation in managing debt levels. *Financial Journal*, *12*(4), 58-72.

Githiga, L. (2023). Working capital management and financial performance of agricultural firms listed on NAIROBI SECURITIES EXCHANGE, Kenya. *Journal of Finance and Accounting*, *7*(1), 116–138. https://doi.org/10.53819/81018102t4127

Gitman, L. J. (1974). Estimating corporate liquidity requirements: A simplified approach. *Financial Review*, *9*(1), 79-88.

Jose, M. L., Lancaster, C., & Stevens, J. L. (1996). Corporate returns and cash conversion cycles. *Journal of Economics and Finance*, *20*(1), 33-46. https://doi.org/10.1007/BF02920497

Karadağ, M. M., & Selimler, H. (2014). Practices, findings, and recommendations for reducing asymmetric information in the credit evaluation process. *Journal of Finance Letters (Maliye ve Finans Yazıları)*, *29*(101), 91–131. https://doi.org/10.33203/mfy.519248

Karuitha, G. M. (2024). *Working capital and financial performance of listed commercial and services companies in Nairobi Securities Exchange, Kenya*. USIU. http://erepo.usiu.ac.ke/handle/11732/8480

Kebewar, M. (2013). *Does debt affect profitability an empirical study of French trade sector*. https://doi.org/10.13140/2.1.2261.0565

Kroes, J. R., & Manikas, A. S. (2014). Cash flow management and manufacturing firm financial performance: A longitudinal perspective. *International Journal of Production Economics, 148*, 37-50. https://doi.org/10.1016/j.ijpe.2013.11.008

Kundu, S., Quddus, K., & Sharma, N. J. (2022). Does halo effect of innovative firms moderate the impact of working capital efficiency on firm value? Evidence from India. *Cogent Economics & Finance*, *10*(1), 2068240. https://doi.org/10.1080/23322039.2022.2068240

Kwamboka, I., Maina, & Katiti, J. (2025). Effect of accounts receivable management practices at profitability of Energy and petroleum firms listed on the Nairobi Securities Exchange. *Kenya. Journal of African Interdisciplinary Studies*, *9*(10), 78–91. https://kenyasocialscienceforum.wordpress.com/wp-content/uploads/2025/10/6pdf-kwamboka-et-al-effect-of-accounts-receivable-management-practices-of-listed-firms-at-nairobi-exchange.pdf

Manyo, T. S., & Ike, J. U. (2013). The effect of accounts receivable on return on assets of selected Nigerian firms. *International Journal of Current Research*, *5*(12), 3768–3772. https://eprints.gouni.edu.ng/id/eprint/1362

Mukherjee, P. (2014). *Accounts receivable management*. Excel Books.

Munene, F., Charles, Y., & Tibbs. (2018). Accounts receivable management and financial performance of Embu Water and Sanitation Company Limited, Embu County, Kenya. *International Academic Journal of Economics and Finance* |, *3*(2), 216–240. http://www.iajournals.org/articles/iajef_v3_i2_216_240.pdf

Naushad, S. K., Naskar, P., & Bandopadhyay, K. (2026). Strengthening financial resilience: The role of accounts receivable management. *SSRN Electronic Journal*, *1*(1), 1–8. SSRN. https://doi.org/10.2139/ssrn.6458719

Norboyev, B. U. (2024). Automated clearing house (ACH) transfer: Work, types, benefits & drawbacks. *International Journal of Academic Engineering Research (IJAER)*, *8*(4), 1-4. http://ijeais.org/wp-content/uploads/2024/4/IJAER240401.pdf

NSE. (2019). *Annual report 2019*. Nairobi Securities Exchange.

Otieno, O. W., & Lenaituriai, G. S. (2024). Effect of working capital management on financial performance of manufacturing firms listed at the Nairobi Securities Exchange. *European Academic Journal – I*, *3*(1), 1-16. https://eaj.ebujournals.lu/index.php/EAJ/article/view/133

Owuor, G. O., Agusioma, N., & Wafula, F. (2021). Effect of Accounts Receivable Management on Financial Performance of Chartered Public Universities in Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting*, *3*(1), 73-83. https://doi.org/10.35942/ijcfa.v3i1.182

Qiao, P., Qiu, K., Fung, A., & Fung, H.-G. (2024). Unleashing Industry 4.0: Empowering corporate trade credit. *Finance Research Letters, 69*, 106155. https://doi.org/10.1016/j.frl.2024.106155

© 2026 Author(s). This article is licensed under the Creative Commons Attribution–NonCommercial 4.0 International License (CC BY-NC 4.0).

Richards, V. D., & Laughlin, E. J. (1980). A cash conversion cycle approach to liquidity analysis. *Financial Management, 9*(1), 32-38. https://doi.org/10.2307/3665310

Samiloglu, F., & Demirgunes, K. (2008). The effect of working capital management on firm profitability: Evidence from Turkey. *International Journal of Applied Economics & Finance, 2*(1), 44–50. https://doi.org/10.3923/ijaef.2008.44.50

Scafarto, V., Dalwai, T., Ricci, F., & della Corte, G. (2023). Digitalization and firm financial performance in healthcare: The mediating role of intellectual capital efficiency. *Sustainability, 15*(5), 4031. https://doi.org/10.3390/su15054031

Sejake, L., Beneke, J., Maseko, J. G., & Ismaila, B. (2024). Effects of working capital management on the profitability of South African construction companies listed on the JSE. *International Journal of Research in Business and Social Science, 13*(4), 252-264. https://doi.org/10.20525/ijrbs.v13i4.3341

Singh, R. P., Singh, R., & Mishra, P. (2021). Does managing customer accounts receivable impact customer relationships, and sales performance? An empirical investigation. *Journal of Retailing and Consumer Services, 60*, 102460. https://doi.org/10.1016/j.jretconser.2021.102460

Štangová, N., & Víghová, A. (2021). Company liquidity as a reflection of receivables and payables management. *Entrepreneurship and Sustainability Issues*, *9*(2), 238–254. https://doi.org/10.9770/jesi.2021.9.2(16)

Wanzala, R. W., & Obokoh, L. (2024). The effects of working capital management on the financial performance of commercial and service firms listed on the Nairobi Securities Exchange in Kenya. *Risks, 12*(8), 119. https://doi.org/10.3390/risks12080119

Weston, J. F. (1979). Operating cycle and its impact on financial management. *Financial Review*, 14(2), 56-70.

Zhao, X., Chen, Q., Zhang, H., Chen, P., & Chen, S. (2024). A study on the influencing factors of corporate digital transformation: Empirical evidence from Chinese listed companies. *Scientific Reports, 14*, 6243. https://doi.org/10.1038/s41598-024-56729-4

Zhou, S., Amin Noordin, B. A., & Tunde, M. B. (2025). Innovation's influence on working capital management and profitability: A Chinese high-tech manufacturing perspective. *Accounting & Finance, 65*(1), 37–58. https://doi.org/10.1111/acfi.13315

© 2026 Author(s). This article is licensed under the Creative Commons Attribution–NonCommercial 4.0 International License (CC BY-NC 4.0).