



# Mediating Role of Relationship Quality among Small and Medium Enterprises in Nairobi County, Kenya

Shadrack Cheruiyot Rotich<sup>1\*</sup>, Joyce Komen<sup>1</sup>, Josephat Cheboi<sup>2</sup>

<sup>1</sup>Department of Management Science, Moi University, Cheptiret, Kenya

<sup>2</sup>Department of Accounting and Finance, Moi University, Cheptiret, Kenya

Email: \*shamenjo@yahoo.com

**How to cite this paper:** Rotich, S.C., Komen, J. and Cheboi, J. (2025) Mediating Role of Relationship Quality among Small and Medium Enterprises in Nairobi County, Kenya. *Open Access Library Journal*, 12: e12320. <https://doi.org/10.4236/oalib.1112320>

**Received:** September 18, 2024

**Accepted:** February 25, 2025

**Published:** February 28, 2025

Copyright © 2025 by author(s) and Open Access Library Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

The study aimed to analyze the mediating role played by relationship quality on the link between electronic customer relationship management strategy and performance of SMEs in Nairobi County, Kenya. In this research, relationship quality is composed of trust, commitment, and satisfaction. Key findings indicate that relationship quality mediates the relationship between electronic customer relationship management strategy and the performance. Capability to broaden customer knowledge and extend successful relationships with customers is laid upon the organization's ability to identify with customers, their individual preferences, expectations and varying needs. On mediation of relationship quality, satisfied customers are more likely to share positive experiences with others, leading to positive marketing. This can attract new customers to the SME, increasing its customer base. Additionally, a positive reputation built on strong relationships can enhance the SME's brand image, attracting more customers and driving sales. Loyal customers who have a positive relationship with the SME are more likely to become advocates for the business. They can provide valuable feedback and testimonials, which can be utilized by the SME for product/service improvement and marketing purposes. This feedback loop ensures that the SME stays attuned to customer needs, leading to the development of products/services that align with customer preferences, ultimately driving sales and enhancing performance.

## Subject Areas

Economics

## Keywords

Electronic Customer Relationship, Relationship Quality, Small and Medium

---

Enterprises, Kenya

---

## 1. Background Information

SMEs, which account for more than 99% of enterprises in the European Union, are one of the engines of economic growth [1] and are widely regarded as vulnerable in a highly competitive business environment due to a lack of financial, human, and other resources [2]. To overcome the constraints of accessing financial and infrastructure resources, SMEs prioritize the development of relational assets. Similarly, [3] who describes relationship quality as a two-dimensional construct based on trust and commitment, and argues that it improves SME company success.

Small and Medium Enterprises (SMEs) play a crucial role in driving Kenya's economy, contributing to over 90 percent of the total labor force and serving as a significant force in poverty alleviation and economic advancement. Beyond this, they serve as hubs for innovation, fostering competitiveness, providing goods and services, and nurturing entrepreneurial talents. With a staggering number of over 7.4 million Micro, Small, and Medium Enterprises (MSMEs) employing roughly 14.9 million Kenyans across various sectors, their presence spans virtually every facet of the economy. It's noteworthy that a large proportion of these enterprises operate informally [4].

Relationship quality has been proposed as a mechanism for distinguishing buyer-supplier relationships along a continuum (low to high relationship quality) to evaluate various aspects of the relationships, including the level of trust [5]. Relationship quality is a measure not only of the quality of collaboration relationships, but also can be used to evaluate the value of arm's length relationships. Relationship quality represents the overall relationship in an abstract manner rather than as specific dimensions of the relationship.

In recent years, changes in the market and business environment have become more important than ever. The internal changes in the organizational environment such as the increasing domination of the Internet in the business world, the Internet of things, emerging events such as Industry, rapid technological developments, changes in the tastes of customers, the speed of information transfer and complex employee management force businesses to transform [6]. It has caused unprecedented pressure on businesses to quickly adapt and respond to changes in their work environments [7]. There is a consensus on the importance of strategic agility in the light of complex management challenges such as globalization, dynamic environment, and speed of innovation, mergers and acquisitions. The struggle to cope with increased environmental uncertainties, including various practices and techniques commonly used in different sectors, had consequently, and required a revision of both strategic decision-making processes and their nature [8].

Kwiatk *et al.* (2020) [9] also found that relationship quality directly impacts

SME sales and customer share of wallet. Gottfredson *et al.* (2022) [10] found that relationship quality is crucial for organizational success, while Efrat and Øyna (2021) [11] found that SME resource organics had a significant impact on performance improvement. According to Liu (2020) [12], SMEs must prioritize preserving relationship quality to overcome resource and development constraints. However, the study found that partnership quality positively affects organizational performance.

In the realm of supply chains, maintaining high-quality relationships is crucial, as effective relationship management enables organizations to achieve the necessary agility and adaptability. According to Enrique *et al.* (2022) [13], who propose defining supply chain flexibility as the capacity to swiftly adjust supply chain processes in response to changing circumstances using minimal resources, it is logical to infer that such adaptability is motivated by a desire to uphold relationship quality. Benzidia and Makaoui (2020) [14] stress the importance of supply chains being sufficiently flexible to navigate information uncertainties and sudden shifts in demand, necessitating adjustments in lead times, as well as product quality and quantity.

### Objectives of the Study

The study aims to analyze the mediating role played by Relationship Quality (RQ) on the link between electronic Customer Relationship Management (eCRM) strategy and performance of SMEs in Nairobi County, Kenya. Specifically, it determined:

- 1) The effect of eCRM on performance of small and medium enterprises.
- 2) The effect of relationship quality on SME performance in Kenya.
- 3) The effects of eCRM on relationship quality in Nairobi County, Kenya.
- 4) The mediating effect of Relationship Quality (RQ) on relationship between eCRM on performance of small and medium enterprises SME performance in Kenya.

#### Research Hypothesis

**$H_{01}$ :** There is no significant effect of eCRM on performance of small and medium enterprises SME performance in Nairobi County, Kenya.

**$H_{02}$ :** There is no significant effect of relationship quality on SMEs performance in Kenya.

**$H_{03}$ :** There is no significant effect of e-CRM on relationship quality.

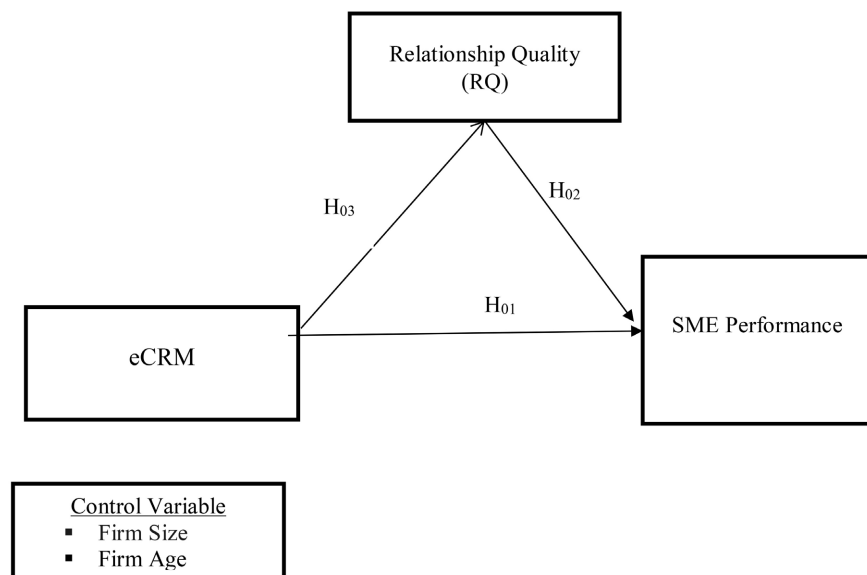
**$H_{04}$ :** There is no mediating effect of relationship quality on the relationship between eCRM and SMEs performance.

## 2. Empirical Literature Review

Abdi *et al.* (2019) [15] investigates the effect of electronic Customer Relationship Management (eCRM) on the service attributes and quality of customer-bank relationships, for a study case of Maskan Bank Branches in Tehran. This is applied research in terms of objective and it is descriptive and quantitative in terms of data

nature. The statistical population of this research includes the customers who use the Maskan Bank electronic communication service in Tehran city. According to results, the implementation of e-CRM affects the services attributes and quality as well as the outcomes of Customer Relationship with bank Maskan. In addition, the e-CRM implementation also has an indirect effect on relationships quality and outcomes through customer-based service attributes. This study finds that the education and communication duration with bank as an intervening variable affects each of the e-CRM variables, the quality and outcomes of customer-bank relationships.

John (2018) [16] examined the impact of relationship quality on organizational performance by testing the relationship quality-relationship outcome conceptual model. Organizational performance is measured in terms of relationship outcomes. A survey was used to collect data from pharmaceutical companies in India. Relationship quality is comprised of trust, commitment, communication quality, and, relationship satisfaction. Relationship outcomes conceived as a dependent variable for this study were also measured using suitable non-financial and relationship centered measures. The research instruments were refined and validated. The data were analyzed using structural equation modeling. The results indicate that only communication quality and relationship satisfaction emerge as significant predictors of relationship outcomes in the current research context.



**Figure 1.** Conceptual framework. Source: Researcher (2024).

Koeh *et al.* (2022) [17] examined effect of relationship quality on customer loyalty. The study adapted a positivist approach because of the use of quantitative data. The study further utilized explanatory research design. A questionnaire was used to collect data from a sample of 309 bank customers in Nairobi, Mombasa, Nakuru, Kisumu and Eldoret who maintained bank accounts in the Kenya Commercial Bank, Cooperative Bank, NIC Bank, Diamond Trust Bank, African Banking Corporation

and K-Rep (renamed Sidian) Bank. Correlation analysis was used to establish the relationship among the variables. Multiple and moderated regression analysis was used to test the hypotheses at  $\alpha = 0.05$  level of significance. Model effect size was measured using R-square. The results indicated that relationship quality and the dimensions in the study that is, commitment, communication and conflict handling, were significant in affecting customer loyalty.

From the above review it is evident that most of the previous studies have dealt with direct effect relationships. There is scarce literature on mediation effects between e-CRM strategies and SMEs performance hence this study proposed **Figure 1** to fill the identified gaps. **Figure 1** is a conceptual model.

### 3. Research Methodology

**Target Population:** The study targeted 2821 registered SMEs within Nairobi CBD (Nairobi County, Department of Trade, 2022) (**Table 1**). The choice of Nairobi County Kenya was informed by the fact that it has a wide range of companies suitable for the study as per the data available in the trade department.

**Table 1.** Target population.

Strata	No. of SME
Manufacturing	392
Hospitality	759
Consulting	267
Information technology	157
General shops	627
Tours & travel	619
Total	2821

Source: Nairobi County, Department of Trade (2022).

**Data type and Source:** Primary data was used. A well-structured questionnaire was distributed to the managers of every organization

**Sample Size:** A total of 416 questionnaires were administered. The sample size formula for large (hyper-geometric) populations is shown as follows:

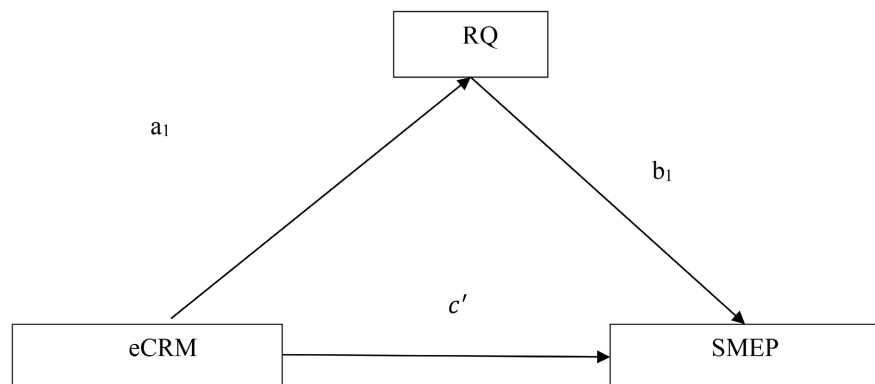
$$n = NZ^2 pq / \{E^2 (N - 1) + z^2 pq\} \quad (1)$$

where  $n$  = is the required sample size,  $N$  = is the population size (2821),  $z$  = is the level of confidence of the sample size (set at 95%) thus  $z = 1.96$ ,  $p$  and  $q$  are the population proportions (set to 0.5).  $E$  sets the accuracy of the sample proportions (set to 0.05).

**Research Design:** Cross-sectional research design was employed. A cross-sectional research design involves collecting data from a sample of individuals or entities at a single point in time to examine relationships, differences, or trends within a population. In this design, the researcher gathered information on RQ, eCRM

and performance of SMEs from business people in Nairobi County, Kenya, Kenya. This type of research design is commonly used in various fields, including social sciences, epidemiology, public health, and market research. It allows researchers to analyze a particular phenomenon or behavior at a specific moment, providing insights into the characteristics or attributes of a population at that point in time. However, Cross-sectional research design has some limitations, cross-sectional designs may be susceptible to bias, as they rely on data collected at a single time point and do not account for changes that may occur over time and performance of SMEs in Nairobi County, Kenya.

**Model Specification:** Conditional process modeling (PROCESS macro) was used to test mediating effect of relationship quality on the relationship between e-CRM and performance of small and medium enterprises. PROCESS macro has been used in various studies recently published in prestigious journals. PROCESS macro enabled us to conduct mediation (Hayes Model 4). Using the illustration below, mediation was depicted in the following way (see **Figure 2**):



**Figure 2.** Mediation model. Source: Researcher (2024).

- 1) eCRM must have a sign effect on RQ =  $a_1 eCRM + \varepsilon$ .
- 2) RQ must have a sign SMEP =  $b_1 RQ + \varepsilon$ .
- 3) SMEP =  $b_1 RQ + eCRM + \varepsilon$  = Partial Mediation.
- 4) Mediation =  $a_1 * b_1$  or  $c$  (Total effect) -  $c'$  (Direct effect).

## 4. Results and Interpretation

### Descriptive Statistics

The study described the measures of central tendency. These are means, standard deviation, minimum and maximum values. These statistics are fundamental in data analysis and can provide valuable insights into the characteristics of a dataset. They are often used to summarize data, assess its distribution, and make comparisons between different datasets. Each variable was measured using several constructs. Each construct was rated in a five Likert-scale. These include 5-strongly agreed, 4-agreed, 3-undecided, 2-disagree and 1-strongly disagree.

**Table 2** indicates most of the respondents strongly agreed ( $n = 229$ , 58.4%) that

there was growth in sales in relation to their expectations. On the growth in sales in relation to your competitors, majority of the respondents strongly agreed at 41.8% ( $n = 164$ ), 13.8% ( $n = 54$ ) were undecided while 3.3% ( $n = 13$ ) strongly disagree with that statement. In general, majority of the SME agreed and strongly agreed that there was growth in profits in relation to their expectations. Also, they were in agreement that growth in profit level and that there was increased market size in new markets in relation to their expectation. The overall mean of 3.96 (approximate 4 = agree) and a standard deviation of 0.683 provide important information about a dataset concerning the respondents. The mean of 3.96 indicates that, on average, the values in the dataset tend to cluster around 4. It serves as a measure of central tendency, suggesting that the majority of respondents were in agreement with constructs.

**Table 2.** Descriptive statistics of the SME performance.

	Percent	Minimum = 1, Maximum = 5				
		SA	A	U	D	SD
There is growth in sales in relation to your expectations	F %	229 58.4	121 30.9	27 6.9	5 1.3	10 2.6
There is growth in sales in relation to your competitors	F %	164 41.8	138 35.2	54 13.8	23 5.9	13 3.3
There is growth in profits in relation to your expectations	F %	169 43.1	139 35.5	47 12.0	27 6.9	10 2.6
There is growth in profit level in relation to your competitors	F %	136 34.7	137 34.9	71 18.1	30 7.7	19 4.6
There is increased market size in new markets in relation to your expectation	F %	133 33.9	122 31.1	70 17.9	42 10.7	25 6.4
There is growth in capital from operations	F %	115 29.3	157 40.1	58 14.8	41 10.5	21 5.4
There is high level of customer loyalty	F %	128 32.7	139 35.5	54 13.8	43 11.0	28 7.1
<b>Overall</b>		<b>Mean = 3.9</b>		<b>Std dev. = 0.683</b>		

Source: Research analysis (2023).

The standard deviation of 0.683 suggests that the data points in the data set are tightly clustered around the mean (4 = agree). They are not spread out to some extent. This smaller standard deviation indicates less variability, if larger standard deviation would have been experienced, it would have implied more variability. The standard deviation also provides information about the variability or consistency of the data. A smaller standard deviation indicates that data points are relatively close to the mean, while a larger standard deviation means that data points are more spread out from the mean. A larger standard deviation might indicate the presence

of outliers or extreme values in the data set. Outliers can significantly impact the mean and standard deviation, so it's important to consider them when interpreting these statistics. In summary, the mean and standard deviation are key summary statistics that provide insights into the central tendency and variability of a data set. They are essential for understanding the characteristics of the data and for making comparisons or inferences.

**Table 3** presents descriptive statistics for Electronic Customer Relationship (eCRM). There are ten items used to measure and the respondents rated each item in a 5-Likert scale. The overall response had a mean of 3.81 and standard deviation of 0.696. The average response was approximate 4 which is "agree" from the Likert scale. The standard deviation of 0.696 was small compared to the mean signifying responses of each item not far for from the average response.

**Table 3.** Descriptive statistics of the electronic customer relationship.

	Percent	Minimum = 1, Maximum = 5				
		SA	A	U	D	SD
My organization has an operational web site	F %	143 36.5	125 31.9	62 15.8	40 10.2	22 5.6
The enterprise has an active facebook account that is interactive	F %	150 38.3	138 35.2	53 13.5	36 9.2	15 3.8
My organization has a Mpesa till for business transactions	F %	113 28.8	150 38.3	61 15.6	45 11.5	23 5.9
Our customers have a lot of ease in sending customer feedback through our facebook page	F %	133 33.9	143 36.5	64 16.3	31 7.9	21 5.4
My organization has a twitter account that's active	F %	137 34.9	131 33.4	64 16.3	36 9.2	24 6.1
Majority of our referred customers appreciate our social media accounts used for marketing	F %	125 31.9	137 34.9	54 13.8	53 13.5	23 5.9
The enterprise's web site is capable to provide customers with the needed information quickly and precisely.	F %	134 34.2	123 31.4	68 17.3	49 12.5	18 4.6
I have confidence in the enterprise's service to the customers.	F %	141 36.0	133 33.9	63 16.1	33 8.4	22 5.6
I trust the website to keep our customer information safe.	F %	128 32.7	134 34.2	72 18.4	35 8.9	23 5.9
The electronic services provided in my enterprise are reliable	F %	111 28.3	151 38.5	65 16.6	38 9.7	27 6.9
<b>Overall</b>		<b>Mean = 3.8</b>		<b>Std dev. = 0.696</b>		

Source: Research analysis (2023).

**Table 4.** Descriptive statistics of relationship quality.

		Minimum = 1, Maximum = 5				
		Percent	SA	A	U	D
Our firm has higher integrity	F	111	121	72	49	39
	%	28.3	30.9	18.4	12.5	9.9
We work in close cooperation	F	132	127	68	39	26
	%	33.7	32.4	17.3	9.9	6.6
Our firm has good will reputation	F	68	179	133	12	00
	%	17.3	45.7	33.9	3.1	0.0
Our firm is trust worthy	F	202	116	34	25	15
	%	51.5	29.6	8.7	6.4	3.8
We have consistent in providing quality services	F	158	109	61	37	27
	%	40.3	27.8	15.6	9.4	6.9
Our firm is reliable in providing unique services	F	149	108	62	48	25
	%	38.0	27.6	15.8	12.2	6.4
We remain loyal to a client to enjoy the relationship	F	131	127	78	43	13
	%	33.4	32.4	19.9	11.0	3.3
The firm is looking out for my interest	F	113	137	79	41	22
	%	28.8	34.9	20.2	10.5	5.6
I have strong sense of loyalty toward firm	F	104	142	78	38	30
	%	26.5	36.2	19.9	9.7	7.7
Our firm completely meets my expectations	F	105	138	87	37	25
	%	26.8	35.2	22.2	9.4	6.4
Our firm shows a sincere interest in solving complaints	F	117	151	63	37	24
	%	29.8	38.5	16.1	9.4	6.1
Our employees work in a tidy professional way	F	119	138	78	40	17
	%	30.4	35.2	19.9	10.2	4.3
Our clients feel satisfied with all services offered	F	123	141	78	27	23
	%	31.4	36.0	19.9	6.9	5.9
Our firm tries very hard to establish long term relationship	F	132	140	64	35	21
	%	33.7	35.7	16.3	8.9	5.4
<b>Overall</b>		<b>Mean = 3.8</b>	<b>Std dev. = 0.652</b>			

Source: Research analysis (2023).

Majority strongly agreed that their organization had an operational web site (36.5%), Their enterprise had an active Facebook account that is interactive (38.3%), that the organization had an Mpesa till for business transactions (38.3%), their customers have a lot of ease in sending customer feedback through our Facebook page (33.9%), the organization has a twitter account that's active (34.9%). They also agreed that majority of their referred customers appreciate our social media accounts used for marketing (34.9%), the enterprise's web site is capable to provide

customers with the needed information quickly and precisely (34.2%). They believed confidence in the enterprise's service to the customers (36.0%), they trusted the website to keep our customer information safe (32.7%) and finally they agreed that electronic services provided in my enterprise were reliable (38.5%).

The study sought to examine the influence of Relationship Quality as mediating variable. From the descriptive statistics presented in **Table 4**, this variable had 14 items each rated with a five Likert scale. Overall, the average response was 3.79 (approximate 4-agree) and standard deviation of 0.652. Mean and standard deviation are essential statistical measures that provide valuable insights into a dataset's characteristics. The mean represents the average of a data set. It gives you a central point around which the data points tend to cluster. For normally distributed data, the mean is the most representative measure of central tendency.

Standard deviation quantifies the amount of variation or dispersion in a set of values. If the standard deviation is small, it means the values tend to be close to the mean, while a large standard deviation indicates the values are spread out over a wider range. The respondents agreed that their firm has higher integrity ( $n = 121$ , 30.9%). They strongly agreed that they work in close cooperation ( $n = 132$ , 33.7%) and their firm is trustworthy ( $n = 202$ , 51.5%). Further, they were in agreement that they have been consistent in providing quality services ( $n = 158$ , 40.3%) and that their firms were reliable in providing unique services ( $n = 131$ , 38.0%) and remain loyal to a client to enjoy the relationship ( $n = 131$ , 33.4%).

Majority agreed that their firm completely meets my expectations ( $n = 138$ , 35.2%) and the firm shows a sincere interest in solving complaints ( $n = 151$ , 38.5%). Their employees work in a tidy professional way ( $n = 138$ , 35.2%), clients feel satisfied with all services offered ( $n = 141$ , 36.0%) and the firm tries very hard to establish long-term relationship ( $n = 140$ , 35.7%).

These descriptive statistics (mean and standard deviation) are fundamental statistical metrics that provide insights into the central tendency and spread of data. They are crucial for describing, analyzing, and interpreting data. Understanding these measures helps in making informed decisions, drawing conclusions, and conducting further statistical analyses that the study will present in the next section of inferential statistics.

### Assumptions of Multivariate Linear Regression

**Table 5.** Assumptions for multivariate linear regression.

Assumption	Test Used	Results	Remarks
Normality	Jarque-bera	$p = 0.961$	Data followed normal distribution
Linearity	P-P plot	-	Exhibit linear relationship
Collinearity	VIF	Mean VIF = 02.71, tolerance = 0.369	No collinearity
Homoscedasticity	Breusch-Pagan	$p = 0.747$	Homoscedasticity observed

To make sure that regression analysis is accurately representative of the sample and for achieving the best outcomes and to avoid potential for Type I or Type II error, as well as an estimation that is too high or too low for significance or impact magnitude. Tests for normality, linearity, multicollinearity, and homoscedasticity were conducted to ensure that the data met the requirements for this inquiry [18] indicate assumptions were met and data was reliable (see Table 5).

### Regression Results

The study employed Hayes Model 4 in Process-Macro to analyze the mediation of relationship quality of the SME in Nairobi, Kenya. It was hypothesized that relationship quality can transmit the causal effect of electronic customer relationship management strategies in influencing the SME performances in Kenya. Can the relationship quality transmit the influence of electronic customer relationship management strategies in influencing the SME performances? The study answered this question by analyzing the collected data. In mediation analysis according to Hayes (2012) [19], the effect of independent variable (electronic customer relationship management strategies) on the dependent variable (SME performances) is referred to as total effect and that effect is then partitioned into a combination of a direct effect of independent variable on dependent and an indirect effect of independent variable on dependent variable via mediating variable (relationship quality).

**Table 6.** Mediation analysis (Hayes Model 4).

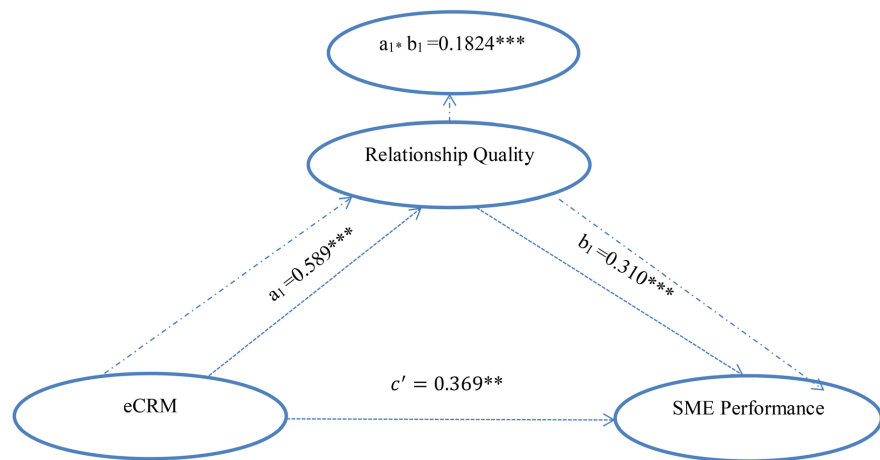
Variables	Mediator (Relationship Quality)		Dependent Variable (SME Performance)
		Coef. (SE)	Coef. (SE)
Electronic customer Relationship (eCRM)	$\beta_1$	0.589*** (0.041)	0.369*** (0.040)
Relationship Quality (RQ)	$\beta_2$	-	0.310*** (0.040)
Firm size	$C_1$	0.070 (0.040)	0.141*** (0.031)
Firm age	$C_2$	0.088** (0.041)	0.289*** (0.032)
Constant	$\alpha_0$	0.000 (0.039)	0.000 (0.031)
		$R^2 = 0.4078$	$R^2 = 0.6400$
		$F = 89.0697$	$F = 171.988$
		$p > F = 0.000$	$p > F = 0.000$
		Index	SE (Boot)
Mediation	0.1824	0.0360	Boot 95% CI
			0.1188 - 0.2576

Note: Coef. = Coefficient; SE = Standard Error; CI = Confidence Interval. 95% confidence interval for conditional direct and indirect effect using bootstrap. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

The effects of mediation analysis on causal mediation have drawn criticism time and time again, despite the fact that it is widely used. Mediation is a comprehensive approach because it typically allows for the randomization of only one of the

three variables in the mediation hypothesis. The independent and dependent variables' causal relationships are not supported by the independent variable's randomization. MacKinnon and Pirlott (2014) [20] overcome these drawbacks by applying recent statistical advances in the field of causal mediation studies. Within-subjects designs usually involve the same subject in both the control and experimental conditions.

**Table 6** indicates that the relationship between the eCRM and RQ have a positive significant relationship ( $\beta = 0.589, p < 0.000$ ). This relationship is referred to path "a". The relationship between eCRM and SME performance was also positive and significant ( $\beta = 0.369, p < 0.000$ ) and it is referred to path "c" in mediation analysis suggested by Zhao *et al.* (2010) [21]. The effect of RQ on SME performance was positive and significant ( $\beta = 0.310, p < 0.000$ ) the path "b" according to Hayes (2012) [19] and Zhao *et al.* (2010) [21]. A significant path  $a * b$  indicates mediation effect [21]. **Figure 3** provides an illustration of the path analysis.



**Figure 3.** Path analysis.

In this study, the coefficient is 0.1824 was significant because the bootstraps confidence interval does not contain zero that is the bootstrap lower limit confidence interval was positive (0.1188) and bootstrap upper limit confidence interval was positive (0.2576). The bootstrapping method is a resampling technique used to estimate statistics on a population by sampling a data set with replacement. It can be used to estimate summary statistics such as the mean or standard deviation. Bootstrap methods can be remarkably being more accurate than the classical inferences based on Normal or  $t$  distributions. Since the bootstrap standard error was 0.0360, and the coefficient is 0.1824 and by conventional method,  $t$ -statistic can be calculated by dividing coefficient with standard error;  $0.1824/0.036 = 5.067 > 1.96$  at 5 percent significance level. The study therefore concludes by stating that partial mediation effect was realized. Further, since the mediation coefficient was positive, relationship quality is a key factor in enhancing the SME performance among the SMEs in Nairobi County in Kenya.

Based on the results, relationship quality acts as the mediator between e-CRM

and the SMEs performance in Nairobi. Furthermore, all the four null hypotheses were rejected at 5 percent level of significance. In general, relationship quality is a key factor which can be integrated by firms to improve their performance. Electronic customer relationship management refers to the practice of managing interactions with existing as well as prospective clients through the utilization of digital communication tools and technologies. This includes interacting with customers through databases, websites, email, and social media in order to boost sales, manage leads, and improve customer service. The quality of the relationship between a company and its consumers, on the other hand, refers to the total breadth and depth of that relationship. Relationship quality is frequently exemplified by trust, commitment, satisfaction, and loyalty [22]. The integration of electronic customer relationship management methods and the prioritization of relationship quality can yield various impacts on the performance of Small and Medium Enterprises such as customer loyalty and retention.

The use of efficient electronic customer relationship management solutions has the potential to enhance the quality of relationships with customers, hence fostering increased levels of customer loyalty [23]. Customers who exhibit loyalty towards a small and medium-sized enterprise are more inclined to engage in repeat purchases, hence contributing to the overall increase in revenue for the business, which depicts an effective performance of the firms as results of increased sales volume. Through the utilization of eCRM systems, small and medium-sized enterprises are able to effectively monitor and analyze consumer behaviors, preferences, and interactions across several digital touch points, including email, websites, and social media platforms. This data set enables small and medium-sized enterprises to gain a deeper comprehension of their client base and subsequently customize their offerings to align with customer preferences and needs. The establishment of a sense of value and understanding by a firm towards its clients has been found to positively influence the development of customer loyalty towards the brand. Electronic customer relationship management solutions have the potential to assist SMEs in effectively dividing their client base into distinct segments [24]. By doing so, SMEs can then provide tailored promotions, reminders, and loyalty programs to these segmented groups, thereby fostering increased customer engagement and satisfaction.

In the modern world, technology has improved significantly, hence firm's shifts to use of technology in terms of management, marketing and most business operation with an aim to increase firm's performance. The shifts of SMEs to the establishment of enduring relationships with esteemed consumers is commonly regarded as the fundamental driver of profitability within a rapidly evolving market, since when eCRM is integrated successfully with relationship quality as illustrated by the study results to have positive correlations in enhancing firms performance, it will enable SMEs in Nairobi to compete effectively with other developed companies which deals with the same products [25]. Electronic Customer Relationship Management (eCRM) is widely recognized as a key strategic endeavor in contemporary industries. The dominant paradigm in the field of relationship marketing

inside the digital realm has emerged; this will significantly help SMEs in Nairobi to boost significantly their performance.

Based on other researcher literature, e-CRM and Relationship quality impacts positively SMEs performance since it ensures firms attain a wider market share which increases sales volume through the use of e-CRM and meets customers satisfaction and wins their loyalty by maintaining relationship quality by ensuring there is a competent management personnel [26]. E-CRM helps firms to develop a functional partnership as a result of relationship quality which enhances the competitive capacity of small enterprises. Therefore, it is advisable for small enterprises to explore the potential of cultivating a robust and intimate association, commonly referred to as relationship quality and integrate with electronic customer relationship management in order to enhance firms performance through opening up of new markets and increase sales which earn them more revenue that can be used to expand the market share to other cities in Kenya.

The concept of inter-organizational relationship quality when incorporated with eCRM with an aim to examine the effects it has on SMEs performance has illustrated a positive relationship, since relationship quality partially mediates eCRM to increase its contributions on SMEs performance in Nairobi [27]. The success of eCRM systems is contingent upon customer happiness, which is the optimal output of relationship quality, hence these factors co-jointly affect SMEs performance and firms in Nairobi cities should considered keenly these factors and invest on them to enhance their efficiency in order for firms to perform extremely well in the competitive environment which is comprised of developed industries.

When a company adheres to established relationship rules and fulfills the expectations of its partners, customers view the relationship to possess significant value. Consequently, this phenomenon leads to an augmentation in the degree of relationship strength and intimacy, as well as enhanced information exchange. The empirical study conducted by [28] reveals that customer information plays a crucial role in enabling enterprises to adapt their organizational processes in response to changing consumer needs. This adaptation ultimately leads to the development of enhanced customer value and satisfaction.

## 5. Conclusions

The study concludes that there was sufficient evidence that relationship quality has an effect on SME performance. When SMEs invest in building strong relationships with their customers, these customers are more likely to remain loyal. Loyal customers tend to make repeat purchases, leading to a stable revenue stream. They are also more likely to recommend the SME to others, expanding the customer base. Higher relationship quality often translates to longer-lasting relationships with customers. As a result, the total revenue a business can generate from a customer over their lifetime increases. This long-term revenue stream can significantly impact the financial stability and growth of an SME.

As relationship quality continues to mediate the relationship between eCRM

and SME performance, the business experiences sustainable growth, profitability, and competitiveness in the market. Moreover, loyal customers often cost less to serve and bring in more revenue over the long term, further boosting the SME's financial performance. The positive relationship between effective eCRM implementation and SME performance is mediated by the quality of relationships the SME builds with its customers. By focusing on enhancing customer satisfaction, trust, and loyalty through eCRM initiatives, SMEs can achieve significant improvements in their overall high relationship quality, characterized by excellent customer service and satisfaction that fosters customer loyalty. Loyal customers tend to make repeated purchases, resulting in increased sales and revenue for the SME. Moreover, loyal customers are more likely to continue doing business with the SME, contributing to customer retention and ensuring a stable revenue stream.

## 6. Recommendations

From the findings, SMEs need to strengthen relationships with suppliers. This can lead to better access to resources, timely delivery of inputs, and favorable terms. When SMEs maintain high-quality relationships with their suppliers, they are more likely to receive preferential treatment, such as discounts or priority access to goods, which can positively impact their operational efficiency and overall performance.

They need to build strong relationships with customers. This fosters loyalty and repeat business. When SMEs focus on delivering high-quality products or services and providing excellent customer service, they can cultivate trust and satisfaction among their customer bases. Satisfied customers are more likely to become repeat buyers and advocates for the SME, resulting in increased sales and revenue.

Further, SMEs need to collaborate with other businesses or stakeholders. This can open up new opportunities for growth and innovation. SMEs that invest in building collaborative partnerships based on trust and mutual respect can access new markets, technologies, or expertise that they may not have otherwise been able to leverage on their own. These partnerships can lead to joint product development, shared resources, or expanded distribution channels, all of which can contribute to improved performance. They also need to maintain positive relationships with employees. This can lead to higher levels of engagement, satisfaction, and retention. When employees feel valued, respected, and supported by their employers, they are more motivated to perform at their best and contribute to the success of the SME. Additionally, a positive work environment can attract top talent and reduce turnover costs, ultimately enhancing the SME's performance.

## Conflicts of Interest

The authors declare no conflicts of interest.

## References

- [1] Di Bella, L., Katsinis, A., *et al.* (2023) Annual Report on European SMEs 2022/2023—

- SME Performance Review 2022/2023. Publications Office of the European Union.
- [2] Cardoni, A., Kiseleva, E. and Bellucci, A. (2022) The Quality of SMEs Stakeholder Communication during Strategic Crises: The Case of Italian Unlisted SMEs. *Business Strategy and the Environment*, **32**, 3292-3308. <https://doi.org/10.1002/bse.3300>
  - [3] Mansor, M.F., Abu, N.H., Halim, H.A. and Ahmad, N.H. (2022) Revisiting SMEs' Business Strategy: Shifting Outsourcing to Crowdsourcing Practices to Enhance SMEs' Performance. *Jurnal Pengurusan*, **66**. <https://doi.org/10.17576/pengurusan-2022-66-07>
  - [4] Kaberia, S.K. and M. A. Muathe, S. (2020) Effect of Covid-19 Pandemic on Performance of Women Owned Micro, Small and Medium Enterprises in Kenya. *International Journal of Social Science Studies*, **9**, 7-21. <https://doi.org/10.11114/ijsss.v9i1.5089>
  - [5] Pan, X., Zang, S., Hu, Y. and Liu, J. (2020) Identifying the Positive Sides of Power Use between (In)congruence in Distributive Fairness Perception and Supplier-Buyer Relationship Quality. *Industrial Marketing Management*, **91**, 362-372. <https://doi.org/10.1016/j.indmarman.2020.09.013>
  - [6] AlTaweel, I. and Al-Hawary, S. (2021) The Mediating Role of Innovation Capability on the Relationship between Strategic Agility and Organizational Performance. *Sustainability*, **13**, Article 7564. <https://doi.org/10.3390/su13147564>
  - [7] Nejatian, M., Zarei, M.H., Rajabzadeh, A., Azar, A. and Khadivar, A. (2019) Paving the Path toward Strategic Agility: A Methodological Perspective and an Empirical Investigation. *Journal of Enterprise Information Management*, **32**, 538-562. <https://doi.org/10.1108/jeim-10-2018-0233>
  - [8] Vecchiato, R. (2015) Creating Value through Foresight: First Mover Advantages and Strategic Agility. *Technological Forecasting and Social Change*, **101**, 25-36. <https://doi.org/10.1016/j.techfore.2014.08.016>
  - [9] Kwiatek, P., Morgan, Z. and Thanasi-Boçe, M. (2020) The Role of Relationship Quality and Loyalty Programs in Building Customer Loyalty. *Journal of Business & Industrial Marketing*, **35**, 1645-1657. <https://doi.org/10.1108/jbim-02-2019-0093>
  - [10] Gottfredson, R.K., Wright, S.L. and Heaphy, E.D. (2022) A Critical Review of Relationship Quality Measures: Is a Fresh Start Needed? An Agenda to Move Forward. *Journal of Occupational and Organizational Psychology*, **95**, 624-659. <https://doi.org/10.1111/joop.12395>
  - [11] Efrat, K. and Øyna, S. (2021) An Interaction Orientation Approach to SME-Intermediaries Relationships. *European Management Journal*, **39**, 508-520. <https://doi.org/10.1016/j.emj.2020.10.004>
  - [12] Liu, H. (2020) Effect of Partnership Quality on SMEs Success: Mediating Role of Coordination Capability and Organisational Agility. *Total Quality Management & Business Excellence*, **32**, 1786-1802. <https://doi.org/10.1080/14783363.2020.1773782>
  - [13] Enrique, D.V., Lerman, L.V., Sousa, P.R.D., Benitez, G.B., Bigares Charrua Santos, F.M. and Frank, A.G. (2022) Being Digital and Flexible to Navigate the Storm: How Digital Transformation Enhances Supply Chain Flexibility in Turbulent Environments. *International Journal of Production Economics*, **250**, Article ID: 108668. <https://doi.org/10.1016/j.ijpe.2022.108668>
  - [14] Benzidia, S. and Makaoui, N. (2020) Improving SMEs Performance through Supply Chain Flexibility and Market Agility: IT Orchestration Perspective. *Supply Chain Forum: An International Journal*, **21**, 173-184. <https://doi.org/10.1080/16258312.2020.1801108>
  - [15] Abdi, M.A., Hamidzadeh, M.R. and Gharache, M. (2019) Effects of E-CRM on the Service Attributes and Quality of Customer-Bank Relationship. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*, **11**, 1-12.

- [16] John, W. (2018) Scale Development and Construct Validity of Organizational Capital in Customer Relationship Management Context: A Confirmatory Factor Analysis Approach. *Business Perspectives and Research*, **7**, 76-91. <https://doi.org/10.1177/2278533718800600>
- [17] Koech, R.K., Kirui, J. and Langat, L. (2022) Relationship between Recruitment Information System and Management of Human Capital: A Case of James Finlay Limited, Kenya. *East African Journal of Business and Economics*, **5**, 11-19. <https://doi.org/10.37284/eajbe.5.1.523>
- [18] Hair, J., Hollingsworth, C.L., Randolph, A.B. and Chong, A.Y.L. (2017) An Updated and Expanded Assessment of PLS-SEM in Information Systems Research. *Industrial Management & Data Systems*, **117**, 442-458. <https://doi.org/10.1108/imds-04-2016-0130>
- [19] Hayes, A.F. (2012) Process: A Versatile Computational Tool for Observed Variable Mediation, Moderation, and Conditional Process Modeling.
- [20] MacKinnon, D.P. and Pirlott, A.G. (2014) Statistical Approaches for Enhancing Causal Interpretation of the M to Y Relation in Mediation Analysis. *Personality and Social Psychology Review*, **19**, 30-43. <https://doi.org/10.1177/1088868314542878>
- [21] Zhao, X., Lynch, J.G. and Chen, Q. (2010) Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research*, **37**, 197-206. <https://doi.org/10.1086/651257>
- [22] Taghipourian, M.J., Hatami, S. and Chalous, I. (2019) E-CRM on the Relationships Quality and Its Consequences: Evidence from Iranian Private Banks. *Journal of Information Engineering and Applications*, **9**, 1-14.
- [23] Çelik, K. and Karakaş, A. (2021) The Effect of Electronic Customer Relationship Management on Perceived Customer Relationship Quality and Customer Loyalty. *Journal of Emerging Economies and Policy*, **6**, 382-393.
- [24] Monteiro, N.F.D.P.S. (2013). E-CRM and Relationship Quality: Exploratory Research in the Portuguese Banking Sector. Master's Thesis, Universidade de Lisboa.
- [25] Mang'unyi, E.E., Khabala, O.T. and Govender, K.K. (2017) The Relationship between E-CRM and Customer Loyalty: A Kenyan Commercial Bank Case Study. *Banks and Bank Systems*, **12**, 106-115. [https://doi.org/10.21511/bbs.12\(2\).2017.11](https://doi.org/10.21511/bbs.12(2).2017.11)
- [26] Dehghanpouri, H., Soltani, Z. and Rostamzadeh, R. (2020) The Impact of Trust, Privacy and Quality of Service on the Success of E-CRM: The Mediating Role of Customer Satisfaction. *Journal of Business & Industrial Marketing*, **35**, 1831-1847. <https://doi.org/10.1108/jbim-07-2019-0325>
- [27] Abdolhosseini Khaligh, A., Miremadi, A. and Aminilari, M. (2012) The Impact of ECRM on Loyalty and Retention of Customers in Iranian Telecommunication Sector. *International Journal of Business and Management*, **7**, 150-162. <https://doi.org/10.5539/ijbm.v7n2p150>
- [28] Combe, I.A., Rudd, J.M., Leeflang, P.S.H. and Greenley, G.E. (2012) Antecedents to Strategic Flexibility: Management Cognition, Firm Resources and Strategic Options. *European Journal of Marketing*, **46**, 1320-1339. <https://doi.org/10.1108/03090561211248053>