



The Mediating Role of Customer Satisfaction in the Relationship between Customer Relationship Management and Firm Profitability: Evidence from Premium Hotels in Uganda

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Abstract: This study examined the mediating role of customer satisfaction in the relationship between customer relationship management (CRM) and firm profitability among premium (four- and five-star) hotels in the Greater Kampala Metropolitan Area (GKMA), Uganda, guided by Service Profit Chain theory. A cross-sectional, explanatory sequential mixed-methods design was used. The population was 2,407 employees of six purposively selected hotels; 343 frontline employees were sampled with Yamane's formula and simple random sampling, of whom 340 responded (99.13%), and 36 key informants were interviewed. Data were collected with a structured questionnaire (content validity index .708 to .815; Cronbach's α .921 to .977) and an interview guide, and analysed with descriptive statistics, correlation, regression and path analysis in STATA 18 and AMOS, and thematically. CRM significantly predicted customer satisfaction ($B = .8227, p < .001, R^2 = .6138$), and satisfaction significantly predicted firm profitability ($B = .8498, p < .001$). With satisfaction in the model, CRM kept a significant direct effect on profitability ($B = .8074, p < .001$) alongside a significant indirect effect (.2036), indicating partial mediation. Hotels should pair CRM investment with systematic satisfaction monitoring and route guest feedback into service recovery, while industry bodies should develop guest-satisfaction benchmarks.

Keywords: CRM; Customer satisfaction; Firm profitability; Mediation; Hotels; Uganda

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1. Introduction

A central question in the customer relationship management (CRM) literature is not merely whether CRM affects firm performance, but how it does so. Understanding the transmission mechanism carries direct managerial value: if the financial return to CRM operates primarily through customer satisfaction, satisfaction should be treated as the proximate management target, with CRM technology and process serving that end rather than being ends in themselves (Chen & Popovich, 2003). Over two decades, CRM has evolved from a narrow information-technology function

concerned with storing customer records into a firm-wide strategic orientation that integrates marketing, operations and human-resource practice around durable, profitable customer relationships (Payne & Frow, 2005; Reinartz et al., 2004). The evolution is especially pronounced in services, where the intangibility, heterogeneity and inseparability of the service encounter make the quality of the customer relationship a primary source of advantage (Parasuraman et al., 1988).

Hospitality is widely regarded as an exemplar. Hotels sell an experience that is co-produced in real time by frontline employees and guests, and the sector adopted CRM early, using guest history, loyalty programmes and

personalised service recovery to differentiate an otherwise substitutable offer (Piccoli et al., 2003; Sigala, 2005). The empirical record on whether this pays off financially is nevertheless mixed. Recent hotel studies report positive links between CRM and customer-facing performance (Al-Kharabsheh, 2024; Wibowo et al., 2025), whereas long-run panel evidence from listed hotel chains shows that the financial payoff of customer satisfaction may appear with a lag rather than contemporaneously (Demydyuk & Carlbäck, 2024). Scholarly attention has also widened from CRM *adoption* to CRM *capability* and its digital enablers (Onditi & Omurwa, 2026; Thai et al., 2024) and to social CRM (Afaq et al., 2023), which underlines that the mechanism linking CRM to performance is still an open question.

The question is salient in Uganda. International arrivals rose from 814,508 in 2022 to 1,274,210 in 2023 (Uganda Tourism Board [UTB], 2023), and national average hotel occupancy improved from 46.9% to 53.9% (Ministry of Tourism, Wildlife and Antiquities [MTWA], 2023). Premium hotels in the Greater Kampala Metropolitan Area (GKMA) sit at the centre of this expansion and compete for guests who are increasingly informed and mobile. Yet local evidence on CRM in hotels is largely guest-side and focused on loyalty (Ngoma et al., 2020) or examines employee attitudes and satisfaction without a financial outcome (Wampande & Osunsan, 2021). Hotel managers therefore lack evidence on whether CRM investment translates into profitability and through which route.

Two explanations are conceivable. The first is that CRM does not generate the financial returns claimed in the literature, at least not in this market. The second, theoretically more interesting, is that CRM does generate returns, but substantially, though not entirely, through its effect on customer satisfaction, so that CRM investments that do not change how guests experience their stay will fail to raise profitability regardless of the sophistication of the technology. This study was designed to adjudicate between the explanations by testing customer satisfaction directly as a mediator, rather than assuming a wholly direct or wholly indirect CRM–profitability relationship. Existing Ugandan studies have examined CRM and service quality jointly against loyalty (Ngoma et al., 2020) but have not formally tested satisfaction as a statistical mediator of the CRM–profitability relationship, which is the gap addressed here.

1.1 Purpose and research questions

The purpose of the study was to examine the mediating role of customer satisfaction in the relationship between CRM and firm profitability among premium hotels in the GKMA. Three research questions guided the study.

- RQ1: What is the effect of CRM on customer satisfaction among premium hotels in the GKMA?

- RQ2: What is the effect of customer satisfaction on firm profitability among premium hotels in the GKMA?
- RQ3: To what extent does customer satisfaction mediate the relationship between CRM and firm profitability among premium hotels in the GKMA?

1.2 Study gap and justification

The gap is empirical and contextual. Hotel studies link CRM to customer-facing outcomes, and satisfaction studies link satisfaction to firm outcomes, but the two links are seldom tested together against a profitability outcome, and none does so for East African premium hotels using the frontline-employee vantage point. The study is justified on three grounds. Practically, hotels commit budget to CRM systems, training and loyalty schemes and need to know whether satisfaction is the channel through which those investments pay. For policy, the UTB and the Uganda Hotel Owners Association (UHOA) need evidence to guide capacity building and classification standards. Theoretically, the study tests the Service Profit Chain and the Resource-Based View against each other in a setting where neither has been applied to the CRM–satisfaction–profitability chain.

2. Literature Review

2.1 Global perspectives on CRM, customer satisfaction and firm performance

CRM practices such as personalised communication, responsive complaint handling and proactive use of guest history have been repeatedly linked to customer satisfaction. Mithas et al. (2005) show that CRM applications improve customer knowledge and thereby customer satisfaction, and the hotel-sector literature has since extended the finding. In Jordan, Al-Kharabsheh (2024) surveyed 101 hotel managers and reported that all four CRM dimensions examined (key-customer focus, CRM organisation, knowledge management and CRM-based technology) had positive and significant effects on customer satisfaction performance; key-customer focus had the strongest effect, and the effect of CRM technology was the weakest. Mohd Fauzi and Mustafa (2024) examined the same family of dimensions among 200 customers of hotels in Johor Bahru, Malaysia, and Wibowo et al. (2025), using Smart-PLS, found that CRM had positive and significant effects on customer satisfaction and loyalty in an Indonesian hotel, with satisfaction mediating the CRM–loyalty relationship. Earlier hotel evidence had already linked CRM dimensions to organisational performance (Alem Mohammad et al., 2013).

At the level of firm outcomes, satisfied customers show stronger repurchase intentions, generate positive word of mouth and are less price sensitive, which lowers acquisition cost and stabilises revenue (Anderson & Sullivan, 1993; Gupta & Lehmann, 2003). The most recent large-scale hotel evidence refines this picture. Analysing 17 years of firm-level data (2004–2020) for six listed US hotel chains, Demydyuk and Carlbäck (2024) found that customer satisfaction was a positive predictor of stock-market performance and accounting profitability, but had a negative or no contemporaneous effect on gross operating customer-level profitability. The implication is that the satisfaction–profit link exists but is time-lagged, a point that bears on the interpretation of any cross-sectional estimate, including the one reported here.

2.2 Regional and local perspectives

Within Africa, evidence on the CRM–satisfaction–profitability chain is scarce. In Uganda, Ngoma et al. (2020) surveyed 460 guests of hotels in the Central region and found that CRM and service quality together explained 28% of the variance in customer loyalty, with CRM the stronger predictor. Wampande and Osunsan (2021) studied 179 employees of hotels in Kampala and found that employee attitude significantly predicted customer satisfaction ($R^2 = .558$), which is consistent with the frontline-employee vantage point adopted in the present study. In Kenya, Onditi and Omurwa (2026)

surveyed marketing managers of 37 of 43 star-rated hotels in Mombasa County (86% response) and found that digital infrastructure, digital strategy and data analytics each positively affected CRM capability, with digital strategy the strongest. None of these studies tests customer satisfaction as a mediator of the CRM–profitability relationship in an East African hotel sample, which is the principal empirical gap the present study addresses.

2.3 Recent evidence and the growth of the field

Table 1 summarises recent empirical studies (2021–2026) that bear directly on the CRM–satisfaction–performance chain in hospitality. Three trends are visible. First, the field is shifting from whether hotels have adopted CRM to whether they possess CRM *capability*, including digital strategy and analytics (Onditi & Omurwa, 2026; Thai et al., 2024). Second, customer satisfaction is increasingly modelled as an intervening variable rather than an end outcome (Wibowo et al., 2025). Third, studies of financial outcomes are moving toward longer panels, which reveal that satisfaction benefits may accrue over time (Demydyuk & Carlbäck, 2024). What remains missing is evidence from East African premium hotels that tests mediation against a profitability outcome, which motivates the present study.

Table 1: Selected recent studies on CRM, customer satisfaction and performance in hotels (2021–2026)

Study	Setting	Design and sample	Relevance to the present study
Wampande & Osunsan (2021)	Kampala hotels, Uganda	Cross-sectional; 179 employees	Employee attitude predicted customer satisfaction ($R^2 = .558$)
Afaq et al. (2023)	Hotel industry, COVID-19 period	Survey study of social CRM	Links social CRM with customer service and loyalty
Demydyuk & Carlbäck (2024)	Six listed US hotel chains	17-year panel (2004–2020)	Satisfaction predicts stock-market and accounting profitability; no or negative contemporaneous effect on gross operating profitability
Al-Kharabsheh (2024)	Jordanian hotels	101 hotel managers; regression	All four CRM dimensions positively affect satisfaction performance; key-customer focus strongest, technology weakest
Mohd Fauzi & Mustafa (2024)	Hotels in Johor Bahru, Malaysia	Cross-sectional; 200 customers	CRM dimensions examined in relation to hotel customer satisfaction
Thai et al. (2024)	3- to 5-star hotels, Viet Nam	Study of CRM implementation factors	Success factors for CRM implementation in hotels
Wibowo et al. (2025)	Hotel in Malang, Indonesia	Smart-PLS path analysis	CRM affects satisfaction and loyalty; satisfaction mediates CRM–loyalty
Onditi & Omurwa (2026)	Star-rated hotels, Mombasa, Kenya	Census; 37 of 43 hotels (86%)	Digital infrastructure, strategy and analytics raise CRM capability; digital strategy strongest

Note. Entries summarise each study’s reported setting, design and headline finding as given in its abstract.

2.4 Theoretical review

Service Profit Chain (SPC) theory (Heskett et al., 1994) is the principal anchor of the study. It proposes a sequential chain in which internal service quality, covering workplace design, job design, employee selection and development, rewards and recognition, and the tools provided for serving customers, produces employee satisfaction; employee satisfaction produces retention and productivity; these produce external service value; external service value produces customer satisfaction; satisfaction produces loyalty; and loyalty drives revenue growth and profitability (Heskett et al., 1994, 1997). Customer satisfaction is thus not an end-state but an intervening mechanism that converts internal organisational capability, of which CRM is a core, technology-enabled component, into external financial outcomes. Meta-analytic evidence supports the chain's customer-side links (Hogreve et al., 2017), and hospitality applications have generally supported the proposed linkages, though link strength varies with market maturity, competitive intensity and switching costs (Cain et al., 2018; Gelade & Young, 2005; Lambert et al., 2021).

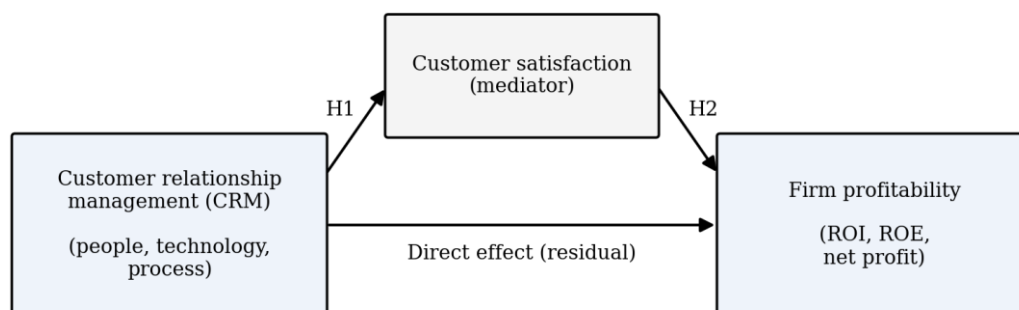
The Resource-Based View (RBV) (Barney, 1991) supplies a complementary account of why CRM may affect profitability even after satisfaction is accounted for. RBV holds that sustained advantage derives from resources that are valuable, rare, inimitable and non-

substitutable. A well-embedded CRM capability, combining guest data, cross-functional processes and accumulated staff know-how, is such a resource. It can generate profit through efficiency channels, such as more accurate demand forecasting, better-targeted marketing and lower acquisition cost, that are additive to its effect on how satisfied individual guests report feeling. RBV therefore offers a coherent account of a partial-mediation pattern.

2.5 Conceptual framework and hypotheses

Drawing on SPC theory, CRM is the independent variable, customer satisfaction the mediating variable and firm profitability the dependent variable (Figure 1). The framework proposes a path from CRM to satisfaction, a path from satisfaction to profitability, and an indirect path from CRM to profitability through satisfaction, alongside a residual direct path from CRM to profitability. Three hypotheses follow.

- H1: CRM has a significant positive effect on customer satisfaction.
- H2: Customer satisfaction has a significant positive effect on firm profitability.
- H3: Customer satisfaction significantly mediates the relationship between CRM and firm profitability.



H3: CRM → satisfaction → profitability (indirect effect, partial mediation)

Note. CRM is operationalised through people, technology and process pillars.

3. Methodology

3.1 Research design

The study adopted a cross-sectional, correlational design combined with an explanatory sequential mixed-methods approach (Creswell & Plano Clark, 2018). The correlational design suits the objective of establishing the

strength and direction of association among CRM, customer satisfaction and firm profitability without manipulating any variable (Creswell, 2014). The study was descriptive in that it aimed to describe current CRM practice, respondent characteristics and profitability indicators without changing any of them (Atmowardoyo, 2018), and a cross-sectional horizon gave a snapshot across a broad sample of hotel employees (Setia, 2016; Wang & Cheng, 2020). A quantitative strand, based on a

structured self-administered questionnaire, provided the primary basis for testing the hypotheses. A qualitative strand, based on semi-structured key-informant interviews, was then used to corroborate, contextualise and enrich the statistical results, consistent with explanatory sequential logic (Creswell & Plano Clark, 2018; Taherdoost, 2022).

3.2 Population, sample and sampling procedures

The study was conducted in the GKMA, Uganda's principal urban and economic hub. Six hotels were purposively selected from the four- and five-star hotels registered with the MTWA and the UTB, using criterion sampling (Patton, 2002) on the basis of established CRM infrastructure and market prominence, consistent with accepted practice for small, non-homogeneous populations of organisations (Eisenhardt, 1989; Yin,

2018). Four hotels were five-star and two four-star; they are labelled A–F here.

The accessible population comprised 2,407 employees across the six hotels. Frontline employees, in front office, food and beverage, accommodation, marketing and sales, and accounts, were the primary respondents because they are in direct and repeated contact with guests and are best placed to report on CRM practice, guest reactions and satisfaction outcomes. Sample size was determined by Yamane's (1967) formula, $n = N / (1 + N \times e^2)$, with $N = 2,407$ and $e = .05$, giving $n = 343$, allocated proportionately to hotels (Table 2) using $n_i = (N_i / N) \times n$ (Särndal et al., 2003). Within hotels, respondents were selected by simple random sampling from employee rosters, so that each member of the population had an equal chance of selection (Etikan & Bala, 2017). Of the 343 questionnaires distributed as printed copies and through an online form, 340 were returned complete and usable (99.13%).

Table 2: Sampling frame, sample allocation and response by hotel

Hotel	Category	Employees (N)	Sample (n)	Responses	Response rate (%)
A	5-star	523	75	74	98.67
B	5-star	235	33	33	100.00
C	5-star	581	83	82	98.80
D	5-star	581	83	82	98.80
E	4-star	246	35	35	100.00
F	4-star	240	34	34	100.00
Total		2,407	343	340	99.13

Note. Source: hotel records and field data (2025).

For the qualitative strand, 36 key informants were purposively selected for their knowledge of hotel CRM practice and guest-satisfaction outcomes (Amin, 2005; Palinkas et al., 2015): six general managers, twelve marketing and sales managers or officers responsible for accounts, six other departmental managers and, by convenience sampling (Etikan et al., 2016), twelve corporate and individual guests available in hotel lobbies on the day of data collection, given high guest turnover and privacy considerations. Informants were not part of the 343 survey respondents.

3.3 Data collection instruments

A structured, self-administered questionnaire had four sections. Section A captured respondent characteristics. Section B measured CRM with 36 items spanning people, technology and process (12 items each), adapted from established CRM scales (Reinartz et al., 2004; Sigala, 2005). Section C measured customer satisfaction with a 30-item, five-point Likert scale covering five facets: services over expectations, positive word of mouth, repurchase, perceived expectations and actual expectations (Blattberg & Wisniewski, 1989). Section D measured firm profitability with a 12-item perceptual

scale covering return on investment (ROI), return on equity (ROE) and net profit, informed by the hotel performance-measurement literature (Enz et al., 2001). All items were rated from 1 (strongly disagree) to 5 (strongly agree). A semi-structured interview guide explored how CRM practices had changed guest behaviour, how satisfaction was tracked and acted upon, and informants' views of the link between satisfaction and financial performance.

3.4 Validity and reliability

Content validity was assessed by expert (inter-rater) review, and the instrument was pre-tested with the research assistants who later helped administer it, who reviewed question content, wording, sequence and layout before final revision. Content validity indices (CVI) ranged from .708 to .815, above the conventional .70 threshold (Lawshe, 1975; Amin, 2005), and Cronbach's alpha ranged from .921 to .977, above the recommended minimum of .70 (Nunnally & Bernstein, 1994; Table 3). Exploratory factor analysis showed a dominant first factor for the satisfaction scale (eigenvalue = 17.84; 81.38% of the summed positive eigenvalues as printed by the software, equivalent to 59.5% of total item

variance when divided by the 30 items), supporting a composite satisfaction index. Alpha values above .95 can

indicate item redundancy (Tavakol & Dennick, 2011), which is noted as a limitation.

Table 3: Content validity and reliability of the measures

Construct	Items	CVI	Cronbach's α
CRM: People	12	.708	.921
CRM: Technology	12	.778	.948
CRM: Process	12	.744	.936
Customer satisfaction	30	.768	.976
Firm profitability	12	.815	.959

Note. CVI = content validity index. Source: field data (2025).

3.5 Data collection procedure

Introductory letters were issued to hotel managements, and written permission to collect data was obtained from each of the six hotels before fieldwork. Marketing, sales and human-resource managers acted as contact persons who helped locate the randomly selected staff. The researcher briefed respondents on the purpose of the study, gave assurance that data would be used only for academic purposes and that managers would not see individual responses, and then distributed questionnaires using a drop-off and pick-up approach, supplemented by an online form to suit shift patterns. Fieldwork was completed in 2025. Interviews were conducted face to face at times agreed with informants, guided by the interview guide, with notes and, where permitted, audio recording. Document review and an observation checklist provided contextual triangulation but no financial-statement data entered the statistical models.

3.6 Data analysis

Quantitative data were cleaned, coded and analysed in STATA 18 and AMOS. Descriptive statistics (means and standard deviations) characterised the sample and variables. Pearson correlation examined pairwise associations at the 5% and 1% significance levels. Simple linear regression tested the effect of CRM on satisfaction (RQ1) and of satisfaction on profitability (RQ2). Mediation (RQ3) was tested with a path model following the Baron and Kenny (1986) logic, with the indirect effect evaluated by bootstrapping (Preacher & Hayes, 2008). Composite indices were formed as item means. Collinearity was checked with tolerance and variance-inflation diagnostics (Hair et al., 2010; Malhotra, 2007). Interview data were transcribed, coded thematically and analysed with a framework approach (Ritchie & Spencer, 1994), with themes organised around the study constructs and compared with the quantitative results in a joint display.

3.7 Ethical considerations

The study received ethical approval from the Clarke International University Research Ethics Committee (protocol reference CLARKE-2024-1107) and was registered with the Uganda National Council for Science and Technology (reference SS3697ES). Participation was voluntary, informed consent was obtained from all respondents and key informants, and participants could withdraw at any time without consequence. Confidentiality and anonymity were protected through respondent codes rather than names, secure storage of completed instruments and reporting only in aggregate or de-identified form. Participants received modest incentives for their time in line with national guidelines, and hotel managements authorised access.

4. Results and Discussion

4.1 Response rate and respondent characteristics

Of 343 questionnaires distributed, 340 were returned complete and usable, a response rate of 99.13%. Table 4 profiles the respondents. Men made up 61.2% of the sample. Food and beverage (40.3%) and accommodation (30.9%) were the largest departments, and 79.7% of respondents worked in five-star hotels. The workforce was experienced and mature: 61.2% had served eight or more years in their hotel, 82.6% had served four or more years, and 64.4% were aged 30–44. Educational attainment was high, with 92.9% holding at least a certificate and 51.2% a bachelor's degree or higher. Because CRM in service settings relies on accumulated guest knowledge, this tenure profile means most respondents were well positioned to report on established CRM practice and guest-satisfaction patterns.

Table 4: Demographic and job-related characteristics of respondents (N = 340)

Characteristic	Category	Frequency (n)	Percent (%)
Sex	Female	132	38.82
	Male	208	61.18
Department	Accommodation	105	30.88
	Accounts	23	6.76
	Food and beverage	137	40.29
	Front office	56	16.47
	Marketing and sales	19	5.59
Hotel category	Five-star	271	79.71
	Four-star	69	20.29
Years in hotel	0–3	59	17.35
	4–7	73	21.47
	8–11	96	28.24
	12–15	80	23.53
	More than 15	32	9.41
Age (years)	20–24	12	3.53
	25–29	53	15.59
	30–34	83	24.41
	35–39	85	25.00
	40–44	51	15.00
	45–49	40	11.76
	50 and above	16	4.71
Education	Primary	2	0.59
	Ordinary certificate (O-level)	8	2.35
	Advanced certificate (A-level)	14	4.12
	Certificate	63	18.53
	Diploma	79	23.24
	Bachelor's degree	118	34.71
	Postgraduate diploma	32	9.41
	Master's degree	24	7.06

Note. Source: field data (2025). Hotel category derived from hotel-level responses in Table 2.

4.2 Descriptive statistics and correlations

All study variables were rated well above the scale midpoint (Table 5), indicating strongly favourable perceptions of CRM practice, customer satisfaction and

firm profitability among respondents. The composite mean for CRM is the mean of the three pillar means (people 4.499, technology 4.446, process 4.456; 12 items each). Responses were concentrated at the upper end of the scale, which restricts variance and is treated as a limitation.

Table 5: Descriptive statistics for the study variables (N = 340)

Variable	Items	Mean	SD	95% CI for mean
Customer relationship management	36	4.467	0.502	[4.413, 4.521]
Customer satisfaction	30	4.501	0.527	[4.445, 4.557]
Firm profitability	12	4.465	0.578	[4.403, 4.527]

Note. CRM standard deviation is implied by the regression of profitability on CRM ($SD = r \times SD \text{ of profitability} \div B$). Intervals use $t(339) = 1.967$.

Table 6: Pearson correlations among the study variables [95% CI]

Variable	1	2	3
1. Customer relationship management	—		
2. Customer satisfaction	0.7835 [0.739, 0.821]	—	
3. Firm profitability	0.8777 [0.851, 0.900]	0.7748 [0.728, 0.814]	—

Note. N = 340; all correlations significant at $p < .01$ (two-tailed). Intervals by Fisher z transformation. Source: field data (2025).

All three variables were positively and strongly correlated. CRM correlated strongly with satisfaction ($r = .7835$) and with profitability ($r = .8777$), and satisfaction correlated strongly with profitability ($r = .7748$). The CRM–profitability correlation is the total association that the path analysis below decomposes into direct and satisfaction-mediated components.

4.3 RQ1 and H1: effect of CRM on customer satisfaction

Regression showed that CRM significantly predicts customer satisfaction, $F(1, 338) = 537.29$, $p < .001$, $R^2 = .6138$, with an unstandardised coefficient of 0.8227 ($p < .001$, 95% CI [0.7529, 0.8925]; Table 7). H1 is supported: a one-unit improvement in CRM is associated with an approximately 0.82-unit increase in satisfaction, and CRM explains 61.4% of its variance. The result is consistent with recent hotel evidence that CRM dimensions positively affect satisfaction (Al-Kharabsheh, 2024; Wibowo et al., 2025) and with the classic finding that CRM applications improve customer satisfaction through better customer knowledge (Mithas et al., 2005). It is also of the same order as the variance in satisfaction explained by employee attitude in Kampala hotels ($R^2 = .558$; Wampande & Osunsan, 2021). Interview evidence points to the mechanism: an individual guest observed that “sometimes the service

goes beyond what I expect, especially in how staff assist me” (Individual customer, P03), and a marketing manager explained that “technology supports personalised service delivery by making customer information accessible to different departments” (Marketing manager, P10).

4.4 RQ2 and H2: effect of customer satisfaction on firm profitability

Customer satisfaction significantly predicted firm profitability, $F(1, 338) = 507.53$, $p < .001$, $R^2 = .6003$, with a coefficient of 0.8498 ($p < .001$, 95% CI [0.7756, 0.9240]), so satisfaction alone explains 60.0% of the variance in profitability. H2 is supported. The result corroborates evidence that satisfied customers repurchase, recommend and spend more (Anderson & Sullivan, 1993; Gupta & Lehmann, 2003) and that satisfaction is positively related to accounting profitability over the long run (Demydyuk & Carlbäck, 2024). Interviewees described the same sequence. The general manager of one hotel noted that “customer satisfaction leads to repeat bookings and strengthens long-term customer relationships” (General Manager, P08), and a food and beverage manager linked satisfaction to spending: “satisfied customers are more willing to spend on food, accommodation, and other hotel services” (Food and beverage manager, P05).

Table 7: Simple regression models (N = 340)

Model	B	95% CI for B	R ²	F(1, 338)	p
RQ1: CRM → Customer satisfaction	0.8227	[0.7529, 0.8925]	.6138	537.29	< .001
RQ2: Customer satisfaction → Firm profitability	0.8498	[0.7756, 0.9240]	.6003	507.53	< .001
Total effect: CRM → Firm profitability	1.0109	[0.9519, 1.0700]	.7704	1,133.90	< .001

Note. B = unstandardised coefficient. Constant not significant in the total-effect model ($p = .709$). Source: field data (2025).

4.5 RQ3 and H3: mediating role of customer satisfaction

The final path model (Figure 2; Table 8) confirmed that CRM has a strong effect on customer satisfaction ($B = 0.8227$, $p < .001$) and that both CRM ($B = 0.8074$, $p < .001$) and customer satisfaction ($B = 0.2474$, $p < .001$)

significantly predict firm profitability when estimated jointly. The model is just-identified (three observed variables with all paths estimated), so its fit indices (RMSEA = 0.000, CFI = 1.000, SRMR = 0.000) hold by construction and carry no diagnostic information; inference rests on the path estimates and the indirect effect.

Table 8: Path coefficients, final structural model

Path	B	SE	Standardised β	t	p
CRM $\rightarrow$ Customer satisfaction (a)	0.8227	0.0355	.784	23.18	< .001
CRM $\rightarrow$ Firm profitability, direct (c')	0.8074	0.0489	.701	16.51	< .001
Customer satisfaction $\rightarrow$ Firm profitability (b)	0.2474	0.0602	.226	4.11	< .001

Note. B and SE as estimated in the structural model; standardised β computed from the correlation matrix and standard deviations; $t = B \div SE$. Source: field data (2025).

Figure 2: Final path model with unstandardised coefficients

Indirect effect ($a \times b$) = 0.2036, bootstrap 95% CI [0.1189, 0.3017]; total effect $c = 1.0109$
 Unstandardised coefficients; *** $p < .001$; $n = 340$; just-identified model ($df = 0$)

Note. *** $p < .001$. The residual direct path indicates partial mediation.

Because the direct CRM–profitability path remained significant once satisfaction entered the model, the pattern indicates partial rather than full mediation. The indirect effect ($0.8227 \times 0.2474 = 0.2036$) was significant on a bootstrapped confidence interval (5,000 resamples; 95% CI [0.1189, 0.3017]), and a delta-

method interval computed from the reported estimates, [0.131, 0.277], gives a similar picture. The indirect effect accounts for about 20.1% of the total effect of 1.0109, and the direct effect for the remaining 79.9% (Table 9). H3 is therefore supported in its partial-mediation form.

Table 9: Decomposition of the effect of CRM on firm profitability

Effect	Estimate	95% CI	Share of total (%)
Direct effect (c')	0.8074	—	79.9
Indirect effect via customer satisfaction (a $\times$ b)	0.2036	[0.1189, 0.3017] (bootstrap)	20.1
Total effect (c)	1.0109	[0.9519, 1.0700]	100.0

Note. Unstandardised effects. The direct and indirect effects sum to the total effect from the simple regression (Table 7).

4.6 Integration of qualitative findings

The interview evidence converged with the survey and added mechanism (Table 10). Guests and managers described personalisation and shared guest information as the routes from CRM to satisfaction, and repeat bookings, spending and lower marketing cost as the routes from satisfaction to financial results. Two accounts point toward a channel that does not run

through satisfaction scores alone: a marketing manager observed that “customer retention reduces marketing costs and improves the hotel’s financial performance” (Marketing manager, P10), and an acting general manager said that “customer loyalty contributes to improved returns by increasing occupancy and reducing marketing costs” (Acting general manager, P09). These statements are compatible with an efficiency channel of the kind RBV predicts, but because both link cost savings

to retention they do not isolate a satisfaction-independent effect. A hotel accountant added a boundary condition, noting that “efficient cost control improves profit

margins and supports overall hotel profitability” (Hotel accountant, P07): CRM-driven revenue is one determinant of margin among several.

Table 10: Joint display of quantitative results and interview evidence

Question	Quantitative result	Interview evidence	Meta-inference
RQ1: CRM → satisfaction	$B = 0.8227$; $R^2 = .6138$	“Technology supports personalised service delivery by making customer information accessible to different departments.” (Marketing manager, P10)	Personalisation and shared guest data are the mechanism
RQ2: satisfaction → profitability	$B = 0.8498$; $R^2 = .6003$	“Customer satisfaction leads to repeat bookings and strengthens long-term customer relationships.” (General manager, P08)	Repeat business and spending carry the effect
RQ3: mediation	Indirect = 0.2036 (20.1% of total); direct effect remains	“Customer retention reduces marketing costs and improves the hotel’s financial performance.” (Marketing manager, P10)	Partial mediation; a cost-efficiency channel is plausible but not isolated

Note. Quotations are verbatim; participant codes as assigned during transcription.

4.7 Discussion

The results clarify a point of ambiguity in the literature. Conceptual work has implied that CRM’s financial value is realised through customer-facing outcomes (Chen & Popovich, 2003), which would predict full mediation. The present results align more closely with an SPC–RBV synthesis: SPC explains why satisfaction carries a substantial part of CRM’s effect, and RBV explains why a direct effect remains, because CRM is a firm-level capability with both customer-facing and operational sources of value (Barney, 1991; Heskett et al., 1994). The finding also fits recent hotel evidence that CRM dimensions raise satisfaction (Al-Kharabsheh, 2024; Wibowo et al., 2025) and that satisfaction is connected to profitability (Demydyuk & Carlback, 2024). Al-Kharabsheh (2024) further found that CRM technology contributed least to satisfaction among the four CRM dimensions, and Onditi and Omurwa (2026) show that CRM capability in Kenyan star-rated hotels depends on digital strategy and analytics; together these suggest that in GKMA hotels technology is likely to raise profitability mainly when embedded in people and processes, a proposition the present data cannot test at pillar level but which future work should.

The distinction matters for practice. A hotel that judges CRM only by satisfaction scores risks under-crediting returns generated through operational-efficiency channels, whereas a hotel that judges CRM only by revenue outcomes risks over-crediting technology for gains mediated by guest experience. The effect of satisfaction on profitability, once CRM is controlled, is modest in size ($B = 0.2474$, with satisfaction adding about two percentage points to explained variance), and Demydyuk and Carlback (2024) suggest that the full financial payoff of satisfaction may emerge over several

periods, which a cross-sectional design cannot observe. The strength of the CRM-to-satisfaction path ($R^2 = .61$) is high relative to the 28% of loyalty variance explained by CRM and service quality in Ugandan guest data (Ngoma et al., 2020); this difference may reflect the employee-rated, single-source nature of the present data as much as market conditions.

4.8 Limitations of the study

Six limitations qualify the results. First, the cross-sectional design captures associations at one point in time and cannot establish causal direction. Second, CRM, satisfaction and profitability were rated by the same respondents in one instrument, so common-method variance may inflate associations (Podsakoff et al., 2003), and no marker-variable test was applied. Third, firm profitability was measured through perceptual indicators rated by frontline employees rather than audited financial statements, which is a second-best strategy, and some items ask about CRM’s contribution to profit, overlapping conceptually with the predictor. Fourth, the six hotels were purposively selected for CRM maturity, which limits generalisation to the wider hotel population; Yamane’s formula was applied to the employee population, so firm-level inference rests on a small number of hotels, and respondents are nested within hotels without multilevel estimation. Fifth, responses were concentrated at the top of the scale and reliability coefficients above .95 suggest item redundancy. Sixth, the mediation model is just-identified, so its global fit is uninformative, and the CRM composite is treated as a single index.

5. Conclusions and Recommendations

5.1 Conclusions

The study examined whether customer satisfaction mediates the relationship between CRM and firm profitability among premium hotels in the GKMA. The conclusions follow the research questions.

- *RQ1*. CRM has a strong, statistically significant positive effect on customer satisfaction ($B = 0.8227$, $p < .001$), explaining over 61% of its variance.
- *RQ2*. Customer satisfaction has a strong, statistically significant positive effect on firm profitability ($B = 0.8498$, $p < .001$), explaining 60% of its variance, with interview evidence pointing to repeat bookings, positive word of mouth and increased spending as the routes.
- *RQ3*. Customer satisfaction partially, rather than fully, mediates the CRM–profitability relationship. CRM converts into profitability through guest satisfaction (indirect effect 0.2036, about 20.1% of the total effect of 1.0109) and directly (0.8074). CRM is therefore associated with financial returns, and satisfaction is an important but not exclusive channel.

5.2 Recommendations

- *RQ1*. Hotel managers should continue to invest in CRM capabilities that improve personalisation and responsiveness, such as guest-history-driven service customisation, which are most directly linked to how satisfied guests feel, and should not treat CRM adoption as an end in itself.
- *RQ2*. Guest feedback should be routed directly into service-recovery workflows and staff coaching so that satisfaction gains convert into repeat, higher-spending behaviour. The Uganda Hotel Owners Association and the Uganda Tourism Board should develop sector-wide guest-satisfaction benchmarks, and hospitality training institutions should build CRM-linked service-recovery and personalisation skills into frontline curricula.
- *RQ3*. Hotels should pair CRM technology and process investment with systematic, recurring satisfaction measurement, such as structured post-stay surveys and real-time service-recovery triggers, and finance and marketing functions should track CRM's operational-efficiency contribution, such as marketing cost per booking and repeat-guest share, as a distinct performance line.

5.3 Further research

Future research should (a) test the mediation with objective financial indicators from audited statements,

such as net margin, ROE, ROI and revenue per available room, and with predictors and outcomes gathered from different sources to limit common-method variance; (b) use longitudinal designs, given evidence that satisfaction benefits accrue over time (Demydyuk & Carlbäck, 2024); (c) include more hotels, and hotels in other categories and regions, with multilevel or hotel-fixed-effects estimation; (d) estimate a full measurement model that separates the people, technology and process pillars and tests their separate effects; and (e) compare East African markets to establish whether the strong CRM-to-satisfaction effect observed here is general or market-specific.

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