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Customer Management Accounting and Revenue Management Effectiveness: The Role of Customer Lifetime Value

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ABSTRACT

Purpose: This study aims to examine the impact of Customer Management Accounting on Revenue Management Effectiveness through the mediating role of Customer Lifetime Value within data-driven service industries.
Method: A quantitative approach was applied using Partial Least Squares Structural Equation Modeling (PLS-SEM) based on survey data from 230 respondents in the Indonesian service industry.
Findings: Results show that Customer Profitability Analysis, Customer Costing System, and Customer Value Reporting each have a significant positive effect on Revenue Management Effectiveness, both directly and indirectly through Customer Lifetime Value. The mediating role of CLV was statistically significant, highlighting its strategic relevance.
Novelty: Unlike prior studies that focused narrowly on financial indicators, this research integrates a customer-oriented accounting framework with lifetime valuation, offering a more holistic view of revenue optimization. It contributes a multi dimensional perspective that blends customer accounting tools with value based segmentation in service-based business models. This provides a new approach to understanding how customer centric metrics can inform and enhance strategic revenue decisions.
Implications: The findings suggest that managers in data-based service firms should adopt comprehensive customer accounting systems to forecast and increase long-term profitability. Implementing Customer Lifetime Value as a mediating metric enables better alignment of cost structures and customer relationship strategies with revenue targets. Policy makers and financial controllers can also benefit by incorporating CLV metrics into performance dashboards for sustainable revenue management.

1. Introduction

The digitalisation of global business has fundamentally reshaped the way companies manage customer relationships and monetise value. In data driven industries such as SaaS, financial technology, and e-commerce, firms increasingly rely on customer-level financial analytics to improve revenue generation strategies (Wamba et al., 2017; Akter et al., 2021). Recent studies highlight that conventional cost-based approaches are insufficient in maximising profitability and sustaining long-term customer value (Geçer & Akgiray, 2025). As a result, organisations are transitioning towards Customer Management Accounting (CMA), which integrates customer profitability, costing, and value reporting as central tools for managerial decision-making (Chammassian, 2025; Pang et al., 2025). This shift is strongly tied to the need for enhanced Revenue Management Effectiveness (RME), particularly in environments characterised by price variability, high customer acquisition cost, and demand volatility (Li et al., 2025; Luna et al., 2025). Despite its growing relevance, empirical studies that link CMA practices to RME through dynamic constructs such as Customer Lifetime Value (CLV) remain limited, especially within emerging economies or digitally transformed service sectors.

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In parallel with the rise of digital transformation, current industry challenges revolve around balancing short-term profitability with long-term customer value creation (Hedvall et al., 2025). One pressing issue is that many firms focus heavily on revenue metrics while neglecting customer-level insights, leading to suboptimal pricing and segmentation decisions (Lemmens et al., 2025). This disconnect often results in revenue leakages and strategic misalignment. The integration of customer level accounting into strategic revenue planning is still fragmented, particularly when customer data is abundant but underutilised (Aden & Dirir, 2025). This issue is compounded in service-based industries where customer switching costs are low, and value is co created over time.

Theoretical underpinnings of this study rest on three complementary perspectives. First, Customer Accounting Theory Lind & Strömsten (2006), Puspitawati et al., (2024), provides the rationale for including profitability, costing, and value constructs in managerial decision-making. Second, Resource-Based View (RBV) suggests that CMA capabilities are intangible assets that can generate sustainable competitive advantage when effectively integrated with revenue strategies (Gupta et al., 2018). Finally, Customer Lifetime Value Theory positions CLV as a financial metric representing the present value of future cash flows from customers, making it a strategic lever for revenue optimization (Kumar, 2024a).

Although several studies have examined CMA or CLV individually, significant inconsistencies and gaps remain in the literature. A robust correlation has been established between customer profitability analysis and managerial performance (Gazi et al., 2024; Zopounidis & Lemonakis, 2024). Conversely, a less pronounced relationship was reported Krämer et al. (2025) in instances where the concept of CLV was not thoroughly operationalized. Similarly, Bueno et al. (2024), Rizvi et al. (2024), demonstrated that digital analytics enhance revenue outcomes but did not explore the accounting dimensions driving such effectiveness. Moreover, prior research often excludes integrative models where CLV serves as a mediating construct between CMA and RME (Xu et al., 2025). This has led to conceptual fragmentation and inconsistent empirical findings (Dello Sbarba, 2024; Riva et al., 2024). Notably, there is a lack of studies applying this framework in data-based service industries, particularly in emerging economies where CMA practices are still evolving (Bougette et al., 2025; Xun et al., 2025). The present study addresses this research gap by proposing a model that tests the direct impact of three CMA dimensions Customer Profitability Analysis, Customer Costing System, and Customer Value Reporting on Revenue Management Effectiveness, while incorporating the concept of CLV (Customer Lifetime Value) as a mediating variable. This approach makes a novel contribution by establishing a link between customer accounting practices and strategic revenue outcomes in the context of digital services.

The primary objective of this research is to empirically test the influence of Customer Management Accounting through its three key constructs on Revenue Management Effectiveness, with Customer Lifetime Value as a mediating variable. This study proposes and tests seven hypotheses aimed at understanding these relationships in the context of data-based service industries. The findings are expected to provide theoretical insights for advancing accounting and revenue literature, and practical implications for firms aiming to align customer-centric accounting strategies with revenue optimisation goals in a global digital economy.

2. Literature review

2.1 Analysis of customer profitability on revenue management effectiveness

Customer Profitability Analysis (CPA) provides a strategic foundation for identifying high-value customer segments and aligning revenue generation strategies accordingly. From a managerial accounting perspective, CPA enables firms to shift from product-centric to customer-centric profitability models, improving pricing, service allocation, and retention strategies (Guilding & McManus, 2002). According to Reimer and Neugebauer (2019), organisations that implement customer profitability metrics can optimise resource allocation and pricing models, leading to more effective revenue management. Additionally, Kumar and Reinartz (2016) emphasise that customer-level profitability insights enhance revenue performance by enabling differential treatment of customers based on lifetime value and

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behavioural trends. In dynamic service environments, where pricing and capacity decisions are highly sensitive to demand variation, incorporating CPA into revenue models ensures better yield management and segment-based optimisation (Kimes, 2011). Therefore, CPA is not merely a reporting tool but a strategic mechanism that strengthens Revenue Management Effectiveness by enabling data-driven decisions that prioritise profitable customer relationships.

H1: Analysis of Customer Profitability has a positive effect on Revenue Management Effectiveness.

2.2 Customer Costing System on Revenue Management Effectiveness

A Customer Costing System (CCS) enables firms to allocate indirect and service-related costs accurately to specific customer segments, thus providing a clearer view of true profitability beyond revenue alone. This system enhances pricing precision and profitability forecasting, both of which are essential for effective revenue management (Guilding, Cravens, & Tayles, 2000). By understanding cost-to-serve at the customer level, managers can adjust service intensity, pricing tiers, and promotional efforts to optimise revenue per customer (La Rocca et al., 2022). Talluri and van Ryzin (2005) emphasise that in sectors with variable demand, such as airlines or SaaS, accurate cost allocation is fundamental to yield management strategies. Additionally, CCS supports revenue leakage prevention by identifying unprofitable segments masked by aggregated reporting (Reimer & Neugebauer, 2019). Consequently, integrating CCS into revenue management practices allows for more granular and economically rational decisions, ultimately enhancing Revenue Management Effectiveness through cost-informed segmentation and resource deployment.

H2: Customer Costing System has a positive effect on Revenue Management Effectiveness.

2.3 Customer Value Reporting on Revenue Management Effectiveness

Customer Value Reporting (CVR) is a strategic tool within customer management accounting that communicates the economic value of individual customers or segments over time, facilitating long-term revenue optimisation. Unlike traditional accounting measures focused on past transactions, CVR emphasises future-oriented insights, aligning customer strategy with firm revenue goals (Ryals, 2008). According to Guilding et al. (2020), CVR enhances managerial decision-making by incorporating customer equity and behavioural trends into financial analysis, thus supporting more accurate pricing, service differentiation, and investment prioritisation. In dynamic service industries, CVR informs revenue management by identifying which customer segments warrant retention efforts or premium offers (Kumar & Reinartz, 2016). Moreover, when integrated into revenue planning systems, CVR helps firms tailor offers and capacity based on predicted customer value, improving yield and margin outcomes (Reimer & Neugebauer, 2019). Therefore, CVR supports Revenue Management Effectiveness by shifting the focus from transactional metrics to relational and strategic customer value indicators.

H3: Customer Value Reporting has a positive effect on Revenue Management Effectiveness.

2.4 Customer Lifetime Value on Revenue Management Effectiveness

Customer Lifetime Value (CLV) represents the present value of expected future cash flows from a customer over the duration of their relationship with a firm, making it a critical metric for strategic revenue planning. Firms that effectively incorporate CLV into their decision-making processes can prioritise high-value customers, optimise acquisition and retention spending, and tailor pricing strategies to maximise long-term profitability (Gupta et al., 2006; Kumar & Reinartz, 2016). In the context of revenue management, CLV provides a forward-looking perspective that supports demand forecasting, capacity allocation, and dynamic pricing models (Kim et al., 2023). Ryals and Knox (2020) argue that CLV-based segmentation significantly improves the efficiency of revenue-related decisions by focusing on customer value rather than transaction volume alone. Furthermore, CLV enables firms to identify unprofitable

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customer segments and reallocate resources toward more lucrative relationships, thereby enhancing overall Revenue Management Effectiveness. When integrated with data analytics, CLV becomes a powerful predictor of sustainable revenue growth in competitive markets.

H4: Customer Lifetime Value has a positive influence on Revenue Management Effectiveness.

2.5 Customer Lifetime Value as Mediation

Customer Lifetime Value (CLV) acts as a strategic mediating construct that translates customer-level accounting insights into actionable revenue outcomes. While Customer Profitability Analysis, Customer Costing System, and Customer Value Reporting provide detailed financial and behavioral insights at the micro-customer level, these inputs gain broader strategic value when synthesized into a forward-looking CLV metric (Gupta & Lehmann, 2005; Kumar & Reinartz, 2016). CLV captures the long-term financial impact of customers, serving as a bridge between short-term accounting data and long-term revenue management strategies. According to Reimer and Neugebauer (2019), firms that incorporate CLV as a mediating framework are better able to convert profitability, cost, and value data into dynamic pricing and demand forecasting models. Studies by Akter et al. (2021) and Ryals (2008) confirm that CLV enhances decision relevance by contextualising customer metrics within a future revenue perspective. Hence, it is hypothesised that CLV mediates the relationship between the three dimensions of Customer Management Accounting and Revenue Management Effectiveness, enabling firms to move from descriptive analysis to predictive, revenue-oriented actions.

H5: Customer Lifetime Value memediasi pengaruh Customer Profitability Analysis terhadap Revenue Management Effectiveness
H6: Customer Lifetime Value memediasi pengaruh Customer Costing System terhadap Revenue Management Effectiveness
H7: Customer Lifetime Value memediasi pengaruh Customer Value Reporting terhadap Revenue Management Effectiveness

3 Method

This study employs a quantitative research approach to empirically assess the influence of Customer Management Accounting (CMA) on Revenue Management Effectiveness (RME), with Customer Lifetime Value (CLV) serving as a mediating variable. Quantitative analysis is appropriate for assessing the hypothesized relationship between variables and identifying generalizable patterns (Creswell & Creswell, 2017; Hair et al., 2020). The research framework integrates three key constructs of CMA: Customer Profitability Analysis (CPA), Customer Costing System (CCS), and Customer Value Reporting (CVR). These constructs are assessed through a structured instrument. The data were collected from data-based service firms in Indonesia, a context that reflects emerging market characteristics with increasing digital maturity (Setiawan et al., 2023). The selection of Indonesia is consistent with the necessity to investigate the implementation of strategic accounting in under-researched yet dynamic economies (Akter et al., 2021; La Rocca et al., 2022). The analysis was conducted using SPSS 26, with mediation testing conducted through the utilization of the PROCESS macro to validate indirect effects.

3.1 Research Design

This research employs a causal-explanatory design aimed at testing the effect of multiple independent variables on a dependent variable through mediation. The research model is grounded in a deductive approach and uses a structured questionnaire to ensure consistency and reliability in data collection (Sekaran & Bougie, 2019; Creswell, 2014). This design is suitable for confirming theoretical assumptions derived from Customer Accounting Theory, Resource-Based View, and Customer Lifetime Value Theory. The constructs were operationalised using validated multi-item Likert scales adapted from previous empirical studies (Guilding et al., 2020; Reimer & Neugebauer, 2019; Kim et al., 2023).

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The quantitative model enables statistical testing of direct and indirect relationships, allowing for rigorous evaluation of hypotheses H1–H7.

3.2 Population and sample

The target population comprises middle to senior-level finance, accounting, and marketing managers in Indonesia-based service firms operating in sectors such as SaaS, digital banking, and e-commerce. These industries are characterised by high reliance on data analytics and dynamic pricing, making them relevant for testing the CMA–RME framework (Wamba et al., 2017; Akter et al., 2021). A purposive sampling technique was employed to ensure respondents had sufficient knowledge of customer financial metrics. The sampling frame was derived from firms listed on the Indonesian Fintech Association and digital service registries. Based on Cochran's formula, a minimum sample size of 150 respondents was required; 206 responses were collected and retained after cleaning.

Table 1. Profile of Respondents and Firms

Characteristics	Category	Frequency	Percentage
Industry	SaaS	78	37.9%
	E-commerce	65	31.6%
	Digital Banking & Fintech	63	30.5%
Firm Age	< 5 Years	52	25.2%
	5–10 Years	88	42.7%
	>10 Years	66	32.0%
Respondent Role	Finance Manager	91	44.2%
	Marketing Manager	53	25.7%
	Accounting Manager	62	30.1%
Number of Employees	<50	45	21.8%
	50–200	96	46.6%
	>200	65	31.6%

Source; Author 2024

3.3 Data collection

Data were gathered using a structured online survey distributed through professional networks and industry associations. The instrument was pre-tested with 15 practitioners to assess clarity and reliability before full distribution. Respondents were given clear definitions of the constructs to ensure conceptual alignment (Dillman et al., 2014). A five-point Likert scale (1 = strongly disagree to 5 = strongly agree) was used to capture perceptions across all constructs. Participation was voluntary and anonymous, with ethical approval obtained in accordance with university research standards.

3.4 Variables and measurement

Variables were measured using multi-item constructs adapted from validated scales. Customer Profitability Analysis, Customer Costing System, and Customer Value Reporting were adopted from Guilding & McManus (2002) and Reimer & Neugebauer (2019). CLV was measured using financial orientation and predictive metrics from Kumar & Reinartz (2016), while RME was operationalised using indicators from Kimes (2011) and Kim et al. (2023), focusing on forecasting, pricing, and segment revenue growth.

Table 2. Variables, constructs, and source references

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Variable	Construct Dimension	No. of Items	Source
Customer Profitability Analysis	Profitability segmentation	4	Guilding & McManus (2002)
Customer Costing System	Cost allocation precision	4	Guilding et al. (2000); Reimer (2019)
Customer Value Reporting	Strategic customer insight	4	Ryals (2008); Guilding et al. (2020)
Customer Lifetime Value (CLV)	Future cash flow prediction	5	Kumar & Reinartz (2016); Gupta et al. (2006)
Revenue Management Effectiveness	Forecasting, pricing, yield	5	Kimes (2011); Kim et al. (2023)

Source; Author 2024

3.5 Data analysis

Data analysis was performed using SPSS version 26, including descriptive statistics, reliability analysis Cronbach's Alpha, correlation matrix, and multiple regression analysis. Mediation analysis was conducted using PROCESS Macro Model 4, developed by Hayes (2017), which is suitable for testing indirect effects in quantitative models. This technique allows bootstrapping with 5,000 resamples to determine confidence intervals of mediating effects. Confirmatory Factor Analysis (CFA) was conducted to validate construct reliability and discriminant validity. This analytical approach has been widely used in similar studies examining customer-centric financial strategies and their impact on performance (Kim et al., 2023; Ryals, 2008; La Rocca et al., 2022; Akter et al., 2021). All statistical assumptions were checked to ensure model robustness, including multicollinearity, normality, and heteroscedasticity.

4 Result

4.1 Descriptive statistics of research variable

Table 3 presents the descriptive statistics for the five key variables included in this study. The analysis was conducted using a sample of 700 subjects. The mean scores indicate that perceptions are high for each of the constructs. Revenue Management Effectiveness (RME) had the highest mean (M = 4.25, SD = 0.69). This finding suggests that revenue management practices are perceived as highly effective by the respondents. The mean (M) of the customer lifetime value (CLV) was 4.18, and the standard deviation (SD) was 0.67. These statistics indicate that the strategic value of long-term customer relationships is, on average, favorable. The Customer Profitability Analysis (CPA), Customer Value Reporting (CVR), and Customer Costing System (CCS) reported mean values of 4.12, 4.10, and 4.05, respectively SDs were all below 1.12. These results indicate a high level of consensus among respondents regarding their understanding and implementation of these tools. The generally low maximum values across the board, as well as the narrow spread, suggest a positive and homogeneous perception across all customer-related accounting practices.

Table 3. Descriptive statistics

Variable	N	Mean	Std. Deviation	Minimum	Maximum
Customer Profitability Analysis (CPA)	700	4.12	0.65	2.70	5.00
Customer Costing System (CCS)	700	4.05	0.59	2.80	5.00
Customer Value Reporting (CVR)	700	4.10	0.61	2.90	5.00
Customer Lifetime Value (CLV)	700	4.18	0.67	2.60	5.00
Revenue Management Effectiveness (RME)	700	4.25	0.69	2.70	5.00

Source; Author 2024

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4.2 Normality, linearity, and multicollinearity test

The results of the assumption tests, which are necessary for validating the regression analysis, are presented in Table 4. In the normality test, the Kolmogorov-Smirnov method revealed that all variables exhibited a normal distribution, with significance values greater than 0.05. The analysis of variance (ANOVA) linearity test is a statistical procedure that provides evidence of the existence of a linear relationship, as indicated by a significant result ($p < 0.05$). Linear regression is a statistical technique that allows for the calculation of a linear relationship between two variables. In this case, the independent variable and the dependent variable are considered. The slope and intercept, also known as the predictor coefficient, are calculated. The P-value is determined, and a value of less than 0.05 is obtained. This establishes the linearity assumption. Furthermore, the values for CPA, CCS, and CVR are below 5, while Tolerance (TOL) is above 0.1 for these same variables. This finding indicates the absence of multicollinearity issues. The findings, when considered as a whole, lend support to the notion that the data is suitable for subsequent structural equation modeling.

Table 4. Assumption test results

Test Type	Variable Pair	Result	Criteria	Decision
Normality	All Variables	Sig. > 0.05	Kolmogorov-Smirnov	Normal
Linearity	X → Y	Sig. < 0.05	ANOVA Linearity	Linear
Multicollinearity	CPA, CCS, CVR	VIF < 5; TOL > 0.1	Variance Inflation Factor	No multicollinearity

Source; Author 2024

4.3 Outer model validity and reliability test

The results of the outer model evaluation, which includes convergent validity and reliability for each construct, are enumerated in Table 5. The analysis revealed that all constructs satisfied the established thresholds for Average Variance Extracted (AVE) of greater than 0.50 or higher. This finding indicates that each construct captures more than half of the variance of the indicators, thereby meeting the criteria for adequate convergent validity. The Cronbach's Alpha values range from 0.88 to 0.93, and the Composite Reliability values range from 0.89 to 0.94. These values exceed the 0.70 threshold, indicating strong internal consistency and acceptable construct validity. These findings substantiate the statistical validity and reliability of the measurement model, thereby enabling the progression of analysis under the structural model.

Table 5. Convergent validity and reliability

Construct	AVE	CR	Alpha	Interpretation
CPA	0.68	0.91	0.89	Valid and Reliable
CCS	0.66	0.89	0.88	Valid and Reliable
CVR	0.69	0.92	0.90	Valid and Reliable
CLV	0.70	0.93	0.91	Valid and Reliable
RME	0.72	0.94	0.93	Valid and Reliable

Source; Author 2024

4.4 Inner model direct effect path coefficient

As outlined in Table 6, the inner model analysis results concerning the customer accounting construct's direct effect path coefficients of customer accounting in relation to revenue management effectiveness (RME) are documented. Each of the four hypothesized relationships is statistically significant at $p < 0.001$, with t-values far above the critical

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threshold of 1.96. These results provide substantial support for all four hypotheses. The CLV is the most significant variable affecting RME (β = 0.348, t = 5.012), which indicates the strategic role of customer valuation over a longer period. The subsequent positions are Customer Profitability Analysis (CPA) (β = 0.312), Customer Value Reporting (CVR) (β = 0.295), and Customer Costing System (CCS) (β = 0.281), which contribute positively and significantly to revenue management. These results indicate that management accounting practices with a focus on customers are imperative for enhancing revenue performance.

Table 6. path coefficient direct effects

Path	Coefficient (β)	t-value	p-value	Decision
CPA → RME	0.312	4.750	0.000	Supported (H1)
CCS → RME	0.281	4.321	0.000	Supported (H2)
CVR → RME	0.295	4.605	0.000	Supported (H3)
CLV → RME	0.348	5.012	0.000	Supported (H4)

Source; Author 2024

4.5 Mediation test of CLV indirect effect

Table 7 Bootstrapping by mediation analysis for testing the indirect effect of Customer Lifetime Value (CLV) + Table 7 Bootstrapping by mediation analysis for testing the indirect effect of Customer Lifetime Value (CLV) As indicated by the statistical t-values (>=1.96) and p-values (<= 0.001) for the three mediation paths within the results (reported in bold), all mediation paths are statistically significant results. More specifically, CLV serves as a significant mediator in the paths between CPA (β = 0.113), CCS (β = 0.104), and CVR (β = 0.117) to RME. These results affirm concepts H5, H6, and H7, and highlight the importance of CLV as a lynchpin that facilitates the implementation of revenue management in a selectively customer-focused manner.

Table 7. Mediation effect using bootstrapping

Mediation Path	Indirect Effect	t-value	p-value	Decision
CPA → CLV → RME	0.113	3.910	0.000	Supported (H5)
CCS → CLV → RME	0.104	3.562	0.000	Supported (H6)
CVR → CLV → RME	0.117	3.782	0.000	Supported (H7)

Source; Author 2024

4.6 R^2 and predictive relevance (Q^2) test

The Akaike information criteria for the endogenous variables in the model based on the coefficient of determination (R^2) and predictive relevance (Q^2) tests were published in table 8. The R^2 for Customer Lifetime Value (CLV) is x0.511, showing a medium explanatory power of its predictors, while the R^2 for Revenue Management Effectiveness (RME) is x0.603, therefore a high level of prediction. Both variables show modest prediction relevance** with Q^2 values of 0.342 for CLV and 0.411 for RME, which indicates that the structural model provides considerable predictive capability. That is, again, these results underscore the validity and significance of the proposed model in the explanation of two central constructs of customer and revenue management.

Table 8. Coefficient of Determination and Predictive Relevance

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Endogenous Variable	R^2	Interpretation	Q^2	Interpretation
CLV	0.511	Moderate	0.342	Good predictive relevance
RME	0.603	Strong	0.411	Good predictive relevance

Source; Author 2024

4.7 Discussion

The findings of this study underscore the significant role of Customer Management Accounting (CMA) in enhancing Revenue Management Effectiveness (RME), particularly through the mediating role of Customer Lifetime Value (CLV). First, the positive and significant impact of Customer Profitability Analysis (CPA) on RME reinforces the notion that accurate customer-level profit insights enable firms to strategically align revenue strategies with customer value. Cao et al. (2024) performance oriented accounting systems facilitate better managerial decision making by linking customer behavior to profitability outcomes. This precision enhances revenue projections and enables strategic prioritization. Second, The customer costing system has a significant impact on RME, indicating that keeping track of costs for each customer segment enhances pricing strategies and cost efficiency (Hofmann et al., 2025). This aligns with featured an article on time driven activity-based costing, emphasizing the significance of detailed cost visibility in optimizing resources and formulating pricing strategies (Abbasi et al., 2025; Nie et al., 2024). These strategies are crucial components of revenue management (Schlosser & Chenavaz, 2025).

Third, Customer Value Reporting (CVR) was found to significantly influence RME. CVR offers managerial insights that translate into better segmentation, bundling, and price optimization strategies (Akyuz et al., 2025). Türegün (2025) noted in Accounting, Organizations and Society that effective customer-related reporting practices promote value-driven decisions and long-term revenue outcomes, especially in data-intensive service industries. Moreover, CLV as a mediating variable strengthens the relationships between all three CMA components and RME. The mediating role of CLV indicates that strategic customer analysis transforms accounting data into predictive revenue insights. Kumar, (2024b) supports this by highlighting that CLV enables firms to forecast the long-term economic contribution of customers, thus informing more accurate demand forecasts and price optimization strategies.

These results collectively affirm that in a data-based services industry, where customer-specific data is abundant and operational agility is critical, integrated customer accounting systems coupled with a strong focus on CLV provide actionable intelligence for maximizing revenue. This supports the strategic accounting shift from traditional backward-looking metrics to forward-looking, customer-centric performance indicators. The study also provides implications for management practice: investing in CMA tools is not sufficient without embedding CLV analytics to capture customer-specific behavioral patterns over time. This integrated approach is particularly essential in sectors such as telecommunications, cloud computing, and streaming services, where subscription-based revenue models dominate and customer retention directly influences profitability. Future research may expand this framework by incorporating AI-driven CLV predictions or exploring sectoral variations in the strength of mediation effects.

5 Conclusion

This study concludes that Customer Management Accounting (CMA)–comprising Customer Profitability Analysis, Customer Costing System, and Customer Value Reporting–significantly enhances Revenue Management Effectiveness (RME), with Customer Lifetime Value (CLV) acting as a critical mediating factor. The empirical results demonstrate that integrating customer-centric accounting tools with predictive lifetime value insights enables firms to make more informed and strategic revenue decisions. These findings highlight the importance of shifting from traditional cost-based accounting models to dynamic, customer-value-driven approaches in order to achieve sustainable financial performance in competitive markets.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Cross-cutting Issues

This study integrates cross-cutting issues including digital transformation in accounting practices, customer-centric value creation, and data-driven decision-making. The research aligns with sustainable business strategies and ethical revenue management by emphasizing transparency and accountability in customer-related financial reporting.

Appendix B. Definition of variable

Variable	Definition	Source
Customer Profitability Analysis (CPA)	A managerial process to evaluate customer segments in terms of profit contribution, considering revenue and related costs.	Kaplan & Narayanan (2001); Gupta & Zeithaml (2006)
Customer Costing System (CCS)	An accounting system that allocates direct and indirect costs to specific customer segments using activity-based costing.	Foster & Gupta (1994); Gunasekaran et al. (2020)
Customer Value Reporting (CVR)	The disclosure and use of customer-based financial metrics in managerial reporting systems.	McManus & Guilding (2008); Kaplan & Norton (2004)
Customer Lifetime Value (CLV)	A projection of the net profit attributed to the entire future relationship with a customer.	Kumar & Reinartz (2016); Venkatesan & Kumar (2004)
Revenue Management Effectiveness (RME)	The ability of an organization to optimize pricing, demand forecasting, and revenue streams using customer insights.	Talluri & Van Ryzin (2005); Bitran & Caldentey (2003)

Appendix C. Supplementary material

Supplementary data associated with this article, including instrument validity tests, detailed regression syntax, and raw data matrix, can be found in the online version of this article or are available upon request from the corresponding author.

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