Knowledge Management, Customer Satisfaction and Innovation in CIMB Bank: A Conceptual Framework

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ABSTRACT

Digital transformation, the rise of new competition from FinTech companies, shifting customer needs and regulatory pressures are creating a fast-paced transformation in the banking industry in Southeast Asia, and this transformation has focused on the importance of knowledge management (KM) to improve organizational performance. This paper conceptualizes and empirically tests a link between knowledge management capabilities (KMC) and knowledge management innovation (KMI) with the organizational performance of CIMB Bank Malaysia and customer satisfaction as a mediating variable. Grounded in Customer Knowledge Management (CKM) theory and informed by the Knowledge-Based View, the Resource-Based View and Expectancy-Disconfirmation Theory, the framework specifies seven hypotheses on the direct influence of KMC and KMI on performance, the links between KMC, KMI and customer satisfaction, and the mediating effects of customer satisfaction. A quantitative cross-sectional survey gathered data from 369 employees and 383 customers across 12 CIMB Bank branches in urban and rural Malaysia, and the data were analysed using regression and partial least squares structural equation modelling (PLS-SEM). The findings support positive direct relationships of KMC ($R^2 = 0.870$) and KMI ($R^2 = 0.913$) with organisational performance. However, customer satisfaction was not significantly related to KMC, KMI or performance, nor did it mediate either knowledge management and performance relationship. These findings add an important boundary condition to KM theory and provide strategic insights for knowledge-based performance enhancement in Malaysian banks.

Keywords: Knowledge Management Capabilities, Knowledge Management Innovation, Customer Satisfaction, Organisational Performance, Customer Knowledge Management, CIMB Bank

INTRODUCTION

Knowledge management (KM) is widely recognised as a crucial enabler of organisational success. It refers to the systematic practices, policies and technologies that govern the acquisition, organisation, transfer, sharing and utilisation of information and expertise within and beyond an organisation's boundaries (Asrar-ul-Haq & Anwar, 2016). Knowledge is now regarded as a strategic resource and a primary source of competitive advantage, particularly in knowledge-intensive service industries such as banking (Edwards & Lönnqvist, 2023; Bergh et al., 2025). With banks being heavy investors in KM systems and digital platforms, the central managerial question now is not whether to invest in KM, but how to transform the knowledge management competency (KMC) and innovation (KMI) into measurable organization performance.

CIMB Group Holdings, headquartered in Kuala Lumpur, is one of the largest financial institutions in ASEAN, with over 15 million customers and approximately 35,000 employees spread across 18 countries, and having a market value of RM 62.4 billion (as of December 2023), it is the fifth-largest bank in ASEAN (CIMB Group Holdings Berhad, 2024). However, achieving profitability while keeping pace with rising operational expenses, staying competitive in an increasingly digitalized environment and adapting to macro-economic volatility and competition from traditional financial institutions and FinTech startups pose significant challenges (Al-Muayad & Chen, 2025). As a service, customers want swift, seamless and personalized experience both online and offline, and banks are beefing up their KM capacity to boost efficiency, innovate and respond faster (Nguyen, 2024). In Malaysia's dual Islamic and conventional banking system, however, the conversion of KM

into performance remains uneven and insufficiently understood (Ali, 2024).

KMC refers to an organisation's ability to systematically create, acquire, share, apply and retain knowledge to support strategic objectives and sustain competitive advantage (Gold et al., 2001; Mohaghegh et al., 2024). KMI refers to the adoption of advanced digital technologies, KM systems and organisational processes that enable real-time access to knowledge, continuous learning and adaptive employee behaviour (Darroch, 2005; Shao et al., 2024). Customer satisfaction is a cornerstone of success in service-intensive industries, strengthening loyalty, repeat patronage, positive word-of-mouth and profitability (Kaura et al., 2024; Mbama & Ezepue, 2023). Previous studies have tended to examine the elements of KM separately rather than adopting a comprehensive approach to the strategic, technological and behavioural aspects of banking (Rasiah et al., 2023), and evidence on the KM and performance relationship, and on the role of customer satisfaction within it, remains inconsistent (Idrees et al., 2023).

Accordingly, this paper develops a conceptual framework grounded in Customer Knowledge Management (CKM) theory and examines it empirically at CIMB Bank Malaysia. The study examines the relationships of KMC and KMI with the bank's performance, the impact of customer satisfaction on performance, the relationships of KMC and KMI with customer satisfaction, and the mediating effect of customer satisfaction on the relationships of KMC and KMI with performance. It combines an internal employee perspective on KM practices with an external customer perspective on satisfaction.

THEORETICAL FOUNDATIONS

Customer Knowledge Management Theory

CKM theory provides the underpinning lens for this study. CKM is an approach through which organisations identify, acquire and utilise knowledge beyond their boundaries to create value through improvement, innovation and new product development. Khosravi et al. (2016) distinguishes three domains: knowledge for customers, reflecting what a company knows about its products, markets and suppliers; knowledge about customers, involving the data collected from them; and knowledge from customers, representing their feedback. The theory spans customer knowledge acquisition, storage, sharing and utilisation, the last being the most significant because it concerns how knowledge is applied to offer customised products and services (Khosravi et al., 2016).

CKM has been applied to digital customer knowledge tools (Castagna et al., 2020), consumer knowledge co-creation on digital platforms (Hanekom & Barker, 2023) and performance in the Malaysian insurance industry (Zahari et al., 2023). CKM was selected because its customer-focused orientation fits the service-intensive banking environment, it integrates innovation within knowledge-based processes, and it explicitly positions customer satisfaction as an intervening variable between KM and organisational outcomes.

Knowledge-Based View and Resource-Based View

The Knowledge-Based View (KBV), an extension of the Resource-Based View (RBV), emphasises knowledge as a critical strategic resource for achieving and sustaining competitive advantage (Curado & Bontis, 2006; Fu, 2022). It holds that intangible, hard-to-imitate knowledge is more valuable than tangible resources and that its creation, integration, application and protection enable firms to innovate (Grant, 1996; Teece, 2020). The RBV argues that firms outperform competitors when they manage resources that are valuable, rare, inimitable and non-substitutable (Barney, 1991; Wernerfelt, 1984). Together, these perspectives explain why KM capabilities and innovative KM practices should enhance performance, although both remain internally focused and do not account for the interaction between organisational knowledge systems and external customer inputs (Vargo & Lusch, 2004).

Expectancy-Disconfirmation Theory

Expectancy-Disconfirmation Theory (EDT) explains satisfaction as a function of the gap between

expectations and perceived performance (Zhang et al., 2021). Expectations serve as the reference frame for judging service experiences (Van Ryzin, 2006). Performance that meets or exceeds expectations produces satisfaction, whereas performance that falls short produces dissatisfaction (Liao et al., 2011), and satisfaction is in turn associated with repurchase, positive word-of-mouth and loyalty. In banking, effective KM shapes service encounters through better-informed staff, personalised solutions and responsive complaint handling, so that expectations are more consistently met. EDT, however, is not integrated with organisational knowledge practices.

Integrating the Theories into the Framework

The Diffusion of Innovations theory (Rogers, 2003) was also reviewed, but, like the KBV, RBV and EDT, it addresses only part of the research problem. CKM theory integrates these perspectives into a model of the full customer knowledge cycle. From the KBV and RBV it draws the premise that knowledge capabilities and knowledge-based innovation are strategic resources that drive performance; from EDT it draws the view of satisfaction as the evaluative outcome through which internal knowledge practices become visible to customers. Together, the theories position KMC and KMI as antecedents, customer satisfaction as the mediating mechanism and organisational performance as the outcome.

Hypotheses Development

Knowledge Management Capabilities and CIMB Bank Performance

H1: Knowledge management capabilities (KMC) have a positive relationship with CIMB Bank's performance.

KMC, including knowledge acquisition, exchange, usage and protection, allow banks to innovate, adapt to market dynamics and align internal activities with strategic objectives. López-Nicolás and Meroño-Cerdán (2011) showed that KM practices improve innovation and financial performance, and Taherparvar et al. (2014) identified customer knowledge management as a driver of innovation and performance in Iranian banks. In Malaysia, Alaarj et al. (2017) found that knowledge acquisition, sharing and utilisation contribute to service-sector performance, and Husseini et al. (2019) highlighted the role of KMC in digital banking reputation. Theoretically, KMC are the routines through which knowledge, the most strategically significant resource, is mobilised into performance (Barney, 1991; Curado & Bontis, 2006; Teece, 2020).

Knowledge Management Innovation and CIMB Bank Performance

H2: Knowledge management innovation (KMI) practices have a positive relationship with CIMB Bank's performance.

KMI enables banks to react quickly to market changes, enhance service delivery and develop an innovation culture. Khamis et al. (2014) found knowledge sharing to be the most effective determinant of e-business success in Malaysian banking, and Husseini et al. (2024) reported that KM processes in Malaysian digital banks enhance reputation and regulatory compliance. Whereas KMC concerns the routine management of existing knowledge (knowledge exploitation), KMI concerns the renewal of those routines through new knowledge-based processes, services and digital practices (knowledge exploration), which explains why the two are modelled as separate antecedents of performance (Teece, 2020; Fu, 2022).

Customer Satisfaction, Knowledge Management and CIMB Bank Performance

Satisfied customers remain and share good news, leading to organizational expansion (Zahari et al., 2023). Tailored solutions, responsive service and seamless digital experiences are keys to satisfaction for CIMB Bank, and KM practices support it by allowing the bank to analyze customer feedback and address their pain

points. On the EDT side, KM affects the service experiences that confirm or disconfirm expectations (Van Ryzin, 2006; Zhang et al., 2021), making satisfaction the key outcome in which the internal knowledge practice occurs.

H3: Customer satisfaction has a positive relationship with CIMB Bank's performance.
H4: Knowledge management capabilities (KMC) have a positive relationship with customer satisfaction.
H5: Knowledge management innovation (KMI) practices have a positive relationship with customer satisfaction.

The Mediating Role of Customer Satisfaction

Knowledge about, for and from customers is linked to innovation, service delivery and organizational outcomes, and recent studies indicate that customer satisfaction can tie KM practices and performance together by creating loyalty and positive perceptions (Almuayad et al., 2024). Knowledge sharing at CIMB Bank can enable employees to engage with customers with greater knowledge, while innovations in KM like AI-driven tools can increase engagement and responsiveness, ultimately driving satisfaction and, consequently, performance.

H6: Customer satisfaction mediates the relationship between knowledge management capabilities (KMC) and CIMB Bank's performance.
H7: Customer satisfaction mediates the relationship between knowledge management innovation (KMI) practices and CIMB Bank's performance.

GAPS IN THE LITERATURE

Theoretical and Empirical Gaps

Several of the KM literature considers KMC, KMI and performance to be loosely coupled concepts and the link between KM and performance is often assumed rather than theorized (Mohaghegh et al., 2024; Idrees et al., 2023). Conceptually, KMC and KMI are linked, but rarely are they modeled together to make clear their different contributions, and the way in which the impact of KM on performance is rarely explicitly stated. For example, Zahari et al. (2023) determined that the transformational and transactional nature of CKM has positive impact on the performance of insurance companies in Malaysia but did not validate that satisfaction is the mediator of these impacts. From an empirical perspective, some studies have found positive and strong effects of KM on performance (Koshelieva et al., 2023), while others have found weak or context-dependent effects and unconfirmed mediating pathways between KM and performance (Al-Muayad & Chen, 2025; Singh & Pradhan, 2024).

Methodological and Contextual Gaps

Most KM studies in the banking sector make use of solely one source of information from employees that leaves room for common-method bias (Henz & Oliveira, 2024; Sayyadi & Provitera, 2024), and studies that use both employees' and customers' perspectives and test mediation via structural equation modeling are limited. Empirical studies within this context mostly include, for countries other than Malaysia, Nigeria (Nnabuife et al., 2015), Kenya (Gakuo & Rotich, 2017) and Nepal and Pakistan (Khanal & Poudel, 2017). In Malaysia, however, the empirical studies are mostly focused on urban SME context (Alaarj et al., 2017; Azimzadeh Irani, 2015). Despite being an early adopter of digital and knowledge-based service models (KMS) under a dual banking regime, CIMB has not yet been the subject of a study that examines its impact on the performance of the bank's consumer-facing operations (Cristache et al., 2025; Ali, 2024).

Conceptual Framework Development

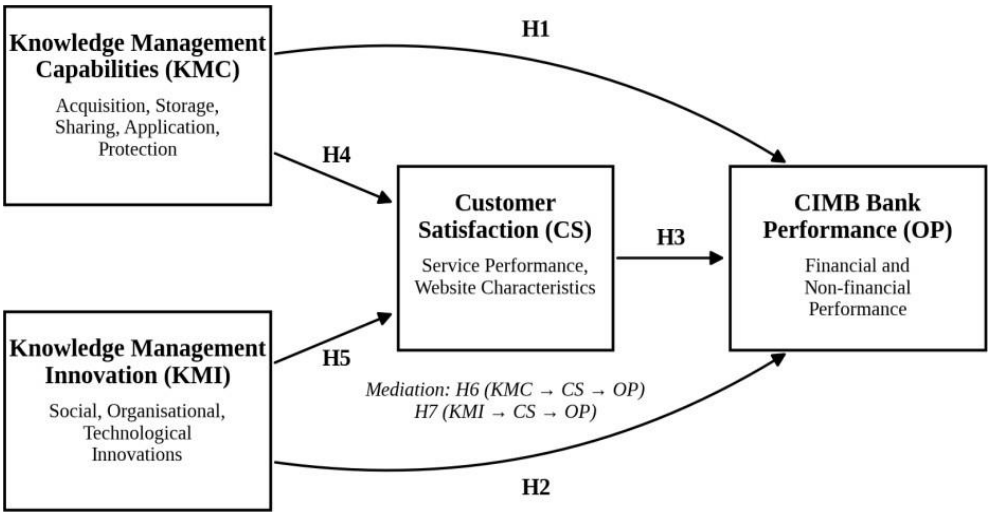


Figure 1: Conceptual Framework

The framework positions KMC and KMI as independent variables, customer satisfaction as the mediating variable and CIMB Bank's performance as the dependent variable. KMC comprise the bank's ability to acquire, store, share, apply and protect knowledge, processes that drive innovation, efficiency and adaptability (Yang et al., 2014; Akhtar et al., 2022). KMI comprises social, organisational and technological innovations (Nowacki & Bachnik, 2016). Performance encompasses financial and non-financial outcomes such as revenue growth, competitiveness and operational efficiency (Idrees et al., 2023). KMC and KMI are hypothesised to influence performance directly (H1, H2) and customer satisfaction (H4, H5), which in turn influences performance (H3), so that satisfaction is the central mechanism linking KM to outcomes (H6, H7), as presented in Figure 1.

RESEARCH METHODOLOGY

Research Design and Sampling

The study used the research onion of Saunders et al. (2019) involving positivist philosophy, deductive approach and quantitative, mono-method survey research with a cross-sectional time horizon. The target population of the study includes CIMB Bank employees and customers in Malaysia. The target employees were all those aged between 21 and 60 who hold a bachelor's degree or above and work either in retail banking or in the various supporting functions of corporate banking, IT and digital services, risk and compliance, finance, human resources and marketing, including entry- and senior-level employees, and the target customers were aged 18 and above who use the bank frequently and regularly. Purposive (non-probability) sampling was applied across 12 branches reflecting urban centres (such as Kuala Lumpur, Johor Bahru, Penang and Kuching) and smaller towns. A 95% confidence level and 5% margin of error, applied to approximately 10,000 employees and 10 million customers, indicated minimum samples of about 370 employees and 384 customers; these parameters served only as a pragmatic heuristic for adequate multivariate analysis and do not imply representativeness. Of 374 employee questionnaires, 369 were returned and usable (98.7%); of 500 customer questionnaires, 421 were returned and 383 complete responses (76.6%) were retained after 38 incomplete questionnaires were discarded.

Measurement of Variables

Structured, closed-end questionnaires based on validated scales were used, with a six-point Likert scale (Table 1). Customer satisfaction, defined as the extent to which products or services meet or exceed expectations (Churchill & Surprenant, 1982), was complemented by the Net Promoter Score (NPS) measured on a 0 to 10 scale (Baehre et al., 2021).

Data Analysis

SPSS was used for data preparation, descriptive statistics, reliability and regression analysis, and SmartPLS for structural equation modelling. PLS-SEM was selected because it accommodates multiple constructs and mediating relationships, does not require strict normality and is robust to multicollinearity among correlated predictors (Hair et al., 2021; Gudergan et al., 2025). The two respondent groups were analysed separately: the employee dataset (n = 369) tested H1 and H2, and the customer dataset (n = 383) tested H3 to H7. Because customers directly experience the outcomes of the bank's KM practices, customer-based measures of KM and performance are treated as perceived measures. Mediation was assessed through bootstrapping, with a variance accounted for (VAF) below 20% indicating no mediation (Hair et al., 2021).

Table 1: Measurement of Study Constructs

Construct	Dimensions (number of items)	Items	Sources
Knowledge Management Capabilities (KMC)	Acquisition (5), Storage (5), Sharing (7), Application (6), Protection (7)	30	Yang et al. (2014); Kiarie (2014); Cockrell & Stone (2010); Tseng & Lee (2014)
Knowledge Management Innovation (KMI)	Social (22), Organisational (6), Technological (10)	38	Abbas et al. (2019); Kaddumi et al. (2023)
Customer Satisfaction (CS)	Service performance (8), Website characteristics (5), plus NPS	13	Kemunto (2015); Baehre et al. (2021)
Organisational Performance (OP)	Financial (4), Non-financial (12)	16	Tseng & Lee (2014)

RESULTS

Respondent Profile, Reliability and Multicollinearity

Employees were mostly aged 36 to 45 (40.4%) and degree holders (54.5% bachelor's; 25.7% postgraduate) spanning all levels from entry-level staff to senior management, while 57.2% of customers mostly used online banking. Mean scores for all constructs were relatively high; technological innovations recorded the lowest KMI mean (M = 4.72), and the customer NPS mean was 6.54 (SD = 1.402). As Table 2 shows, most dimensions exceeded the 0.70 reliability threshold (Taber, 2018), while knowledge sharing and knowledge application fell in the questionable range and were interpreted with caution. Collinearity diagnostics revealed high multicollinearity between KMC and KMI in the employee data (tolerance = .054; VIF = 18.517) and customer data (VIF = 11.237 and 11.280), whereas customer satisfaction showed none (VIF = 1.013). KMC and KMI therefore overlap substantially as constructs, which supported the use of PLS-SEM for the mediation analysis (Gudergan et al., 2025).

Table 2: Reliability Coefficients (Cronbach's Alpha)

Construct	Dimension	Employees (n = 369)	Customers (n = 383)
KMC	Knowledge acquisition	.912	.748
	Knowledge storage	.853	.810
	Knowledge sharing	.628	.650
	Knowledge application	.672	.664
	Knowledge protection	.874	.853
KMI	Social innovations	.936	.920
	Organisational innovations	.857	.848
	Technological innovations	.863	.853
CS	Service performance	–	.862
	Website characteristics	–	.947
OP	Financial performance	.900	.894
	Non-financial performance	.948	.932

Direct Relationships

As Table 3 shows, KMC correlated strongly with organisational performance ($r = 0.933$, $p < .001$) and explained 87.0% of its variance, supporting H1. At the dimension level ($R^2 = .990$), knowledge storage ($\beta =$

.666), acquisition ($\beta = .216$), sharing ($\beta = .209$) and protection ($\beta = .198$) were significant positive predictors, whereas knowledge application had a significant negative coefficient ($\beta = -.181$, $p < .001$). KMI correlated strongly with performance ($r = 0.955$, $p < .001$) and explained 91.3% of its variance, supporting H2. At the dimension level ($R^2 = .933$), social ($\beta = .880$) and organisational innovations ($\beta = .116$) were significant, while technological innovations were not ($\beta = -.020$, $p = .498$). On the customer side, customer satisfaction showed a weak, negative and non-significant relationship with perceived performance ($r = -0.078$, $p = .129$), so H3 was not supported. Neither KMC ($p = .265$) nor KMI ($p = .102$) was significantly related to customer satisfaction, and none of their dimensions reached significance in the multiple regressions ($R^2 = .017$, $p =$

.272; $R^2 = .015$, $p = .121$), so H4 and H5 were not supported.

Table 3: Regression Results for Direct Relationships

Hypothesis	Path	B	β	t	p	R^2	F	Decision
H1	KMC → OP	1.301	.933	49.522	< .001	.870	2452.410	Supported

H2	KMI → OP	1.348	.955	62.004	< .001	.913	3844.492	Supported
H3	CS → OP	−.082	−.078	−1.521	.129	.006	2.314	Not supported
H4	KMC → CS	−.076	−.057	−1.117	.265	.003	1.247	Not supported
H5	KMI → CS	−.110	−.084	−1.637	.102	.007	2.680	Not supported

Note: H1 and H2 estimated on employee data (n = 369); H3 to H5 on customer data (n = 383). OP = organisational performance; CS = customer satisfaction.

Mediation Analysis

Table 4 presents the PLS-SEM results. For KMC, the total (β = 0.919) and direct (β = 0.916) effects on performance were significant, while the indirect effect through customer satisfaction was negligible and non-significant (β = 0.003, T = 1.049; VAF = 0.3264), so H6 was not supported. For KMI, the total (β = 0.929) and direct (β = 0.928) effects were significant, whereas the indirect effect was 0.000 (T = 0.099; VAF = 0.000%), so H7 was not supported. The effects of KMC and KMI on performance therefore occur almost exclusively along a direct route.

Table 4: Mediation Results via Customer Satisfaction (PLS-SEM)

Hypothesis	**Effect**	**Path coefficient**	**T statistic**	**VAF**	**Remarks**
H6 (KMC → CS → OP)	Total effect	0.919	118.728		Significant
	Direct effect	0.916	112.834		Significant
	Indirect effect	0.003	1.049	0.3264%	Not significant; H6 not supported
H7 (KMI → CS → OP)	Total effect	0.929	120.948		Significant
	Direct effect	0.928	115.725		Significant
	Indirect effect	0.000	0.099	0.000%	Not significant; H7 not supported

Note: VAF = indirect effect / total effect; VAF below 20% indicates no mediation (Hair et al., 2021).

DISCUSSION

Direct Effects of KMC and KMI on Performance

The support for H1 and H2 indicates that KMC and KMI are strong direct drivers of performance at CIMB Bank. The KMC finding corroborates Malaysian (Alaarj et al., 2017; Ha et al., 2016) and international evidence (Nnabuife et al., 2015; Khanal & Poudel, 2017; Kashif & Haim, 2018). The negative coefficient for knowledge application suggests inefficiencies in implementation. The KMI finding aligns with evidence that

knowledge sharing supports e-business success in Malaysian banks (Khamis et al., 2014) and that KM practices enhance innovation and performance in banks elsewhere (Taherparvar et al., 2014; Abbas et al., 2019). The non-significant effect of technological innovation should be interpreted cautiously because high collinearity may have suppressed its individual coefficient. The very high explanatory values for H1 and H2 are best regarded as upper-bound estimates: KMC and KMI were highly collinear, and several items, particularly within knowledge application and social innovation, refer to outcomes such as revenue, retention and productivity that overlap conceptually with the performance construct, so shared construct and method variance may have inflated the associations.

Customer Satisfaction and Performance

The rejection of H3 is inconsistent with the service-profit chain literature, in which satisfaction drives financial performance and shareholder value (Anderson et al., 2004; Gupta & Zeithaml, 2006; Eklof et al., 2018). It is, however, consistent with evidence that the satisfaction and performance relationship is weaker, context-dependent and temporally contingent. The meta-analysis of Mittal et al. (2023) shows the association to be weaker in cross-sectional surveys, in service industries and when performance is employee-reported, all of which apply here, and Terpstra and Verbeeten (2014) found the net effect of satisfaction in financial services to be conditional. In addition, CIMB's structural and reputational advantages may make its performance comparatively insensitive to changes in satisfaction, and the cross-sectional design cannot capture the temporal lags through which satisfaction affects profitability over longer periods (Bernhardt et al., 2000).

Knowledge Management and Customer Satisfaction

The rejection of H4 and H5 contrasts with studies linking KM to service quality and customer experience (Azimzadeh Irani, 2015; Nowacki & Bachnik, 2016; Al-Dmour et al., 2022), but it is consistent with evidence that KM effects on customer outcomes are conditional. Gold et al. (2001) argued that KMC effects depend on how far capabilities are integrated across the organisation; Chiu and Chen (2016) found that knowledge infrastructure capability did not significantly affect organisational effectiveness; Mohaghegh et al. (2024) showed that when capabilities are not used in customer interactions the direct path to customer outcomes is non-significant; and Mardani et al. (2018) found that organisational learning fully mediates the KMI and satisfaction pathway. At CIMB, technological innovations recorded the lowest KMI mean, and customers may perceive them as insufficient, consistent with evidence that some technology-based banking innovations do not significantly affect satisfaction (Ayinaddis et al., 2023).

The Absence of Mediation

The rejection of H6 and H7 shows that the direct application of KMC and KMI, rather than customer satisfaction, is the primary driver of performance at CIMB Bank. This resonates with Albarq (2023), who showed that in Saudi banking CKM influences loyalty through non-satisfaction factors such as trust. The satisfaction-mediated pathway may therefore be weaker in large, technologically advanced and highly regulated banks such as CIMB than in smaller or less institutionally complex organisations.

IMPLICATIONS AND RECOMMENDATIONS

Theoretical Implications

The study contributes to KM theory in three ways. First, it extends CKM theory into a large, digitally advanced and highly regulated Malaysian bank, showing that KMC and KMI operate as strong direct drivers of performance, consistent with the KBV and RBV underpinnings of CKM. Second, it refines the theory by showing that the contribution of KM is dimension-specific, with knowledge storage and acquisition, and social and organisational innovation, as the principal drivers, in line with calls for models that differentiate KM infrastructure, process and social dimensions (Syed Mohamad et al., 2022; Aghamirian et al., 2015). Third, it places a boundary on the theory: customer satisfaction is neither reliably responsive to KMC and

KMI nor the pathway through which they translate into performance. The value created by CKM at CIMB appears to arise through internal operational and strategic gains, in line with the knowledge for and knowledge about customers flows (García-Murillo & Annabi, 2002), rather than through observable satisfaction outcomes. These contributions are advanced cautiously, given the single-bank, cross-sectional design and the high collinearity between KMC and KMI.

Practical Implications and Recommendations

Recommendations validated within CIMB's own data include prioritising the capabilities that most strongly predicted performance (knowledge acquisition, storage and sharing) while improving knowledge application processes; prioritising the social and organisational dimensions of KMI; and pursuing technological innovation as an enabler embedded within a broader social and organisational innovation strategy rather than as a stand-alone driver. Because satisfaction surveys are not the primary channel through which KM converts into performance at CIMB, investment decisions should not hinge on satisfaction scores alone. The integration of AI-powered analytics, customer relationship management systems and KM systems, regular training in knowledge utilisation and innovation, and monitoring mechanisms to gauge KM effectiveness against strategic and regulatory goals are also recommended. Managers should recognise that internal KM excellence and customer experience excellence are not necessarily aligned, and that deliberate bridging strategies are needed to convert KM investments into service enhancements customers can experience.

LIMITATIONS AND FUTURE RESEARCH

The study focused on a single bank, so the findings may not apply to smaller banks or to institutions operating under different legal, technological or cultural conditions. The cross-sectional design limits causal inference, the self-reported data may carry perception biases, and purposive sampling means the sample is not statistically representative. Because employees and customers rated partly different constructs, customer-reported performance is more accurately described as perceived performance. Some predictor items overlap conceptually with the dependent variable, which, together with the high VIF values between KMC and KMI, may partly inflate the observed associations, and customer satisfaction was the only mediator examined. Future research should use larger multi-bank and cross-country samples, longitudinal designs and objective performance metrics; refine the instrument by removing outcome-laden items and separating the KMC and KMI item pools; and examine other mediators or moderators such as organisational culture, employee commitment, digital maturity and leadership, as well as the interplay of KM systems with emerging technologies such as AI, blockchain and FinTech.

CONCLUSION

This study aimed to the develop and test a conceptual framework that connects KMC and KMI to the organizational performance of CIMB Bank Malaysia via customer satisfaction by using the concept of the CKM paradigm. The evidence demonstrates that KMC and KMI play pivotal roles as direct drivers of performance and have high degrees of explanatory power (R^2 = 0.870 and 0.913 respectively) and highlight the importance of strategic investment in KM capabilities and innovation in achieving operational performance in the context of strategic responsiveness and competitiveness in the Malaysian banking sector. However, the relationship between customer satisfaction and performance (H3), between KMC and satisfaction (H4) and between KMI and satisfaction (H5), and the mediating roles of customer satisfaction (H6 and H7), were statistically non-significant.

These disconfirmations are not considered to be outliers, but rather substantive disconfirmations, which help to define boundary conditions of the customer satisfaction pathway in CKM theory. The study validates the direct KM and performance relationships and raises questions about the universality of satisfaction mediation, adding to the picture a more precise CKM perspective and setting an agenda for future longitudinal and multi-method studies of KM, banking innovation and performance in emerging markets such as Malaysia.

REFERENCES

1. Abbas, J., Hussain, I., Hussain, S., Akram, S., Shaheen, I., & Niu, B. (2019). The impact of knowledge sharing and innovation on sustainable performance in Islamic banks: A mediation analysis through a SEM approach. Sustainability, 11(15), 4049.
2. Aghamirian, B., Dorri, B., & Aghamirian, B. (2015). Customer knowledge management application and its effects on organizational performance. Procedia – Social and Behavioral Sciences, 109, 470–474.
3. Akhtar, S., Khan, Z., Hussain, M., & Faisal, M. N. (2022). Knowledge management capabilities and organisational performance: The mediating role of knowledge management process and organisational learning. Journal of Knowledge Management, 26(3), 558–578.
4. Al-Dmour, R., Dmour, A., Alsfour, F., & Saifan, N. M. (2022). The role of marketing knowledge management in enhancing digital financial innovation in commercial banks: Empirical study. International Journal of Knowledge Management, 18(1).
5. Al-Muayad, K. M. A., & Chen, Y. (2025). Analyzing the impact of the knowledge management process on the banking sector performance: By using the partial least square method. Knowledge and Process Management, 32(1), 16–27.
6. Alaarj, S., Mohamed, Z. A., & Bustamam, U. S. A. (2017). The Effect of Knowledge Management Capabilities on Performance of Companies: A Study of Service Sector. International Journal of Economic Research, 14(15).
7. Albarq, A. N. (2023). The impact of customer knowledge management (CKM) and customer satisfaction on customer loyalty in the Saudi banking sector: The mediating role of customer trust. Administrative Sciences, 13(3), 90.
8. Ali, H. M. (2024). The integration of knowledge management in the operations of Malaysian banks.
9. International Journal of Business and Society.
10. Almuayad, K. M. A., Chen, Y. Z., Alammari, A. A. S., & Al-Dubai, S. A. (2024). Effect of Knowledge Application and Knowledge Storage on Bank Performance Through Fintech Innovation: A Study of Yemeni Banks. International Journal of Knowledge Management (IJKM), 20(1), 1–18.
11. Anderson, E. W., Fornell, C., & Mazvancheryl, S. K. (2004). Customer satisfaction and shareholder value.
12. Journal of Marketing, 68(4), 172–185.
13. Asrar-ul-Haq, M., & Anwar, S. (2016). A Systematic Review of Knowledge Management and Knowledge sharing: Trends, issues, and Challenges. Cogent Business & Management, 3(1).
14. Ayinaddis, S. G., Taye, B. A., & Yirsaw, B. G. (2023). Examining the effect of electronic banking service quality on customer satisfaction and loyalty: an implication for technological innovation. Journal of Innovation and Entrepreneurship, 12(1).
15. Azimzadeh Irani, M. (2015). Effect of knowledge sharing on organizational performance through customer satisfaction in the Malaysian banking industry [Doctoral dissertation, Universiti Teknologi Malaysia].
16. Baehre, S., O'Dwyer, M., O'Malley, L., & Lee, N. (2021). The use of Net Promoter Score (NPS) to predict sales growth: insights from an empirical investigation. Journal of the Academy of Marketing Science, 50(1). Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99–
17. 120.
18. Bergh, D. D., D'Oria, L., Crook, T. R., & Roccapriore, A. (2025). Is knowledge really the most important strategic resource? A meta-analytic review. Strategic Management Journal, 46(1), 3–18.
19. Bernhardt, K. L., Donthu, N., & Kennett, P. A. (2000). A longitudinal analysis of satisfaction and profitability.
20. Journal of Business Research, 47(2), 161–171.
21. Castagna, F., Centobelli, P., Cerchione, R., Esposito, E., Oropallo, E., & Passaro, R. (2020). Customer Knowledge Management in SMEs Facing Digital Transformation. Sustainability, 12(9), 3899.

22. Chiu, C.-N., & Chen, H.-H. (2016). The study of knowledge management capability and organizational effectiveness in Taiwanese public utility: the mediator role of organizational commitment. SpringerPlus, 5(1).
23. Churchill, G. A., Jr., & Surprenant, C. (1982). An investigation into the determinants of customer satisfaction. Journal of Marketing Research, 19(4), 491–504.
24. CIMB Group Holdings Berhad. (2024). Integrated Annual Report 2024.
25. Cockrell, R. C., & Stone, G. (2010). Going the extra mile: How to engage your customers and employees to deliver outstanding service. New York, NY: AMACOM.
26. Cristache, N., Croitoru, G., & Florea, N. V. (2025). The influence of knowledge management on innovation and organizational performance. Journal of Innovation & Knowledge, 10, 100793.
27. Curado, C., & Bontis, N. (2006). The knowledge-based view of the firm and its theoretical precursor.
28. International Journal of Learning and Intellectual Capital, 3(4), 367.
29. Darroch, J. (2005). Knowledge management, innovation and firm performance. Journal of Knowledge Management, 9(3), 101–115.
30. Edwards, J., & Lönnqvist, A. (2023). The future of knowledge management: An agenda for research and practice. Knowledge Management Research & Practice, 21(5), 909–916.
31. Eklof, J., Podkorytova, O., & Malova, A. (2018). Linking customer satisfaction with financial performance: An empirical study of Scandinavian banks. Total Quality Management & Business Excellence, 29(5-6), 571–586.
32. Fu, Q. (2022). How Innovation Is Created: A Conceptual Framework From a Knowledge-based View.
33. European Conference on Knowledge Management, 23(1), 406–414.
34. Gakuo, E. W., & Rotich, G. (2017). Effect of strategic knowledge management on performance of commercial banks in Kenya. International Academic Journal of Human Resource and Business Administration, 2(3), 19–45.
35. García-Murillo, M., & Annabi, H. (2002). Customer knowledge management. Journal of the Operational Research Society, 53(8), 875–884.
36. Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge Management: An Organizational Capabilities Perspective. Journal of Management Information Systems, 18(1), 185–214.
37. Grant, R. M. (1996). Toward a Knowledge-Based Theory of the Firm. Strategic Management Journal, 17 (Winter Special Issue), 109–122.
38. Gudergan, S. P., Moisescu, O. I., Radomir, L., Ringle, C. M., & Sarstedt, M. (2025). Special issue editorial: Advanced partial least squares structural equation modeling (PLS-SEM) applications in business research. Journal of Business Research, 188, Article 115087.
39. Gupta, S., & Zeithaml, V. (2006). Customer metrics and their impact on financial performance. Marketing Science, 25(6), 718–739.
40. Ha, S.-T., Lo, M.-C., & Wang, Y.-C. (2016). Relationship between knowledge management and organizational performance: A test on SMEs in Malaysia. Procedia - Social and Behavioral Sciences, 224, 184–189.
41. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). A primer on partial least squares structural equation modeling (PLS-SEM) (3rd ed.). Thousand Oaks, CA: Sage Publications.
42. Hanekom, J., & Barker, R. (2023). Knowledge management of consumer lived experience on digital platforms to enhance organisational performance. Regional Journal of Information and Knowledge Management, 8(2), 117–134.
43. Henz, J. L., & Oliveira, M. (2024). Knowledge management implementation: A systematic literature review.
44. Knowledge and Process Management, 31(4), 284–294.
45. Husseini, S. A., Fam, S.-F., & Al-shami, S. A. (2019). The Relationship Between Knowledge Management And Malaysian Digital Banking Reputation. Opción, 35(89), 2899–2921.
46. Husseini, S., Al-Tit, A., & Al-Nuaimi, M. (2024). Service quality, customer satisfaction, and customer loyalty in the banking sector: The moderating role of digitalisation. International Journal of Bank

Marketing, 42(2), 215–234.
47. Idrees, H., Xu, J., Haider, S. A., & Tehseen, S. (2023). A systematic review of knowledge management and new product development projects: Trends, issues, and challenges. Journal of Innovation & Knowledge, 8(2), 100350.
48. Kaddumi, M., Al-Omari, Z., & Al-Adwan, A. S. (2023). Knowledge management capabilities and organizational performance: The mediating role of innovation capability. Journal of Knowledge Management, 27(3), 742–763.
49. Kashif, A., & Haim, H. (2018). Effect of knowledge management activities and dynamic capabilities on employee performance in the banking sector: Empirical evidence from Pakistan. Studies in Business and Economics, 13(2), 41-55.
50. Kaura, V., Prasad, C. S. D., & Sharma, S. (2024). Examining the influence of customer satisfaction on loyalty and profitability in retail banking. International Journal of Bank Marketing.
51. Kemunto, M. O. (2015). Factors influencing customer satisfaction in internet banking: A case of Commercial Bank of Africa, Kenya. Master's Thesis, University of Nairobi.
52. Khamis, N., Sulaiman, A., & Mohezar, S. (2014). Achieving e-business excellence through knowledge management and organizational learning capabilities: A Malaysian perspective. International Journal of Economics and Management, 8(2), 343–364.
53. Khanal, L., & Poudel, S. R. (2017). Impact of knowledge management process on organizational effectiveness of financial institutions. The International Journal of Business & Management, 5(2), 155–162.
54. Khosravi, A., Razak, A., & Hussin, C. (2016). Customer Knowledge Management: Development Stages and Challenges.
55. Kiarie, M. W. (2014). The Role of Policy in the Development of Special Education. International Journal of Progressive Education, 10(3), 86–96.
56. Koshelieva, O., Tsyselska, O., Kravchuk, O., Baida, I., Mironov, V., & Miatenko, N. (2023). Knowledge Management as a New Strategy of Innovative Development. International Journal of Professional Business Review, 8(5), e01592–e01592.
57. Liao, C., Liu, C.-C., Liu, Y.-P., To, P.-L., & Lin, H.-N. (2011). Applying the Expectancy Disconfirmation and Regret Theories to Online Consumer Behavior. Cyberpsychology, Behavior, and Social Networking, 14(4), 241–246.
58. López-Nicolás, C., & Meroño-Cerdán, Á. L. (2011). Strategic knowledge management, innovation, and performance. International Journal of Information Management, 31(5), 502–509.
59. Mardani, A., Nikoosokhan, S., Moradi, M., & Doustar, M. (2018). The relationship between knowledge management and innovation performance: The mediating role of organizational learning. Journal of High Technology Management Research, 29(1), 12–26.
60. Mbama, C. I., & Ezepue, P. O. (2023). Digital banking, customer experience, satisfaction and loyalty: A systematic review and future research agenda. International Journal of Bank Marketing, 41(5), 1024–1051.
61. Mittal, V., Kumar, P., & Tsiros, M. (2023). Customer satisfaction and firm performance: Revisiting the relationship in service industries. Journal of Marketing, 87(2), 45–65.
62. Mohaghegh, F., Zaim, H., Dzenopoljac, V., Dzenopoljac, A., & Bontis, N. (2024). Analyzing the effects of knowledge management on organizational performance through knowledge utilization and sustainability. Knowledge and Process Management, 31(3), 261–272.
63. Nguyen, M. S. (2024). Knowledge management in banking: A bibliometric literature review. Knowledge and Performance Management, 8(1), 1–16.
64. Nnabuife, E. K., Onwuka, E. M., & Ojukwu, H. S. (2015). Knowledge management and organizational performance in selected commercial banks in Awka, Anambra State, Nigeria. IOSR Journal of Business and Management (IOSR-JBM), 17(8), 25–32.
65. Nowacki, R., & Bachnik, K. (2016). Innovations within knowledge management. Journal of Business Research, 69(5), 1577–1581.
66. Rasiah, R., Kamaruddin, N., & Low, W. Y. (2023). Digitalization and development. Rogers, E. M. (2003). Diffusion of innovations (5th ed.). Free Press.

67. Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). Research methods for business students (8th ed.).
68. Pearson Education Limited.
69. Sayyadi, M., & Provitera, M. J. (2024). Why knowledge management strategy implementation fails, and how to avoid it. Business Information Review, 41(4).
70. Shao, B., Kuang, X., & Wang, H. (2024). Digital knowledge management effect on enterprise technological innovation: An empirical study from China's manufacturing industry. Technology Analysis & Strategic Management, 37(11), 2240–2254.
71. Singh, N., & Pradhan, S. (2024). Evaluating the success factors for knowledge management in the financial sector: An AHP-DEMATEL approach. International Journal of the Analytic Hierarchy Process, 16(1).
72. Syed Mohamad, S. J. A. N., Muhamad Nor, N. S. N., Fikry, A., & Abdul Aziz, M. R. (2022). The effect of organizational innovation mediates between knowledge management capabilities and hotel performance: A conceptual analysis. International Management and Business Review, 15(3 SI).
73. Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. Research in Science Education, 48(6), 1273–1296.
74. Taherparvar, N., Esmaeilpour, R., & Dostar, M. (2014). Customer knowledge management, innovation capability, and business performance: a case study of the banking industry. Journal of Knowledge Management, 18(3), 591–610.
75. Teece, D. J. (2020). Hand in Glove: Open Innovation and the Dynamic Capabilities Framework. Strategic Management Review.
76. Terpstra, M., & Verbeeten, F. H. M. (2014). Customer satisfaction: Cost driver or value driver? Empirical evidence from the financial services industry. European Management Journal, 32(3), 499–508.
77. Tseng, S.-M., & Lee, P.-S. (2014). The effect of knowledge management capability and dynamic capability on organizational performance. Journal of Enterprise Information Management, 27(2), 158–179.
78. Van Ryzin, G. G. (2006). Testing the Expectancy Disconfirmation Model of Citizen Satisfaction with Local Government. Journal of Public Administration Research and Theory, 16(4), 599–611.
79. Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. Journal of Marketing, 68(1), 1–17.
80. Wernerfelt, B. (1984). A resource-based view of the firm. Strategic Management Journal, 5(2), 171–180.
81. Yang, L.-R., Huang, C.-F., & Hsu, T.-J. (2014). Knowledge leadership to improve project and organizational performance. International Journal of Project Management, 32(1), 40–53.
82. Zahari, A. S. M., Mahmood, R., & Baniamin, R. M. R. (2023). The effect of customer knowledge management on organizational performance. International Journal of Academic Research in Business and Social Sciences, 13(4), 187–200.
83. Zhang, J., Chen, W., Petrovsky, N., & Walker, R. M. (2021). The Expectancy-Disconfirmation Model and Citizen Satisfaction with Public Services: A Meta-analysis and an Agenda for Best Practice. Public Administration Review, 82(1).