Eduvest – Journal of Universal Studies
Volume 5 Number 10, October, 2025
p- ISSN 2775-3735- e-ISSN 2775-3727

Customer Knowledge Management Success Factors and Challenges in Service-Related Sectors: A Systematic Literature Review

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ABSTRACT

Customer Knowledge Management (CKM) has become crucial for organizations in service-related sectors aiming to enhance customer satisfaction, loyalty, and overall performance through effective management of knowledge for, from, and regarding customers. However, implementing CKM presents both opportunities and significant hurdles. The purpose of this study is to provide an exhaustive understanding of these aspects by systematically reviewing recent literature to identify the critical success factors and key challenges associated with CKM implementation in service-related sectors. A systematic literature review (SLR) was conducted following established guidelines, searching major academic databases (Scopus, IEEE Xplore, ACM Digital Library, Taylor & Francis, ScienceDirect) for relevant studies published up to 2025. Following a rigorous screening and quality assessment process, 21 primary studies were selected for data extraction and synthesis. The findings reveal several key success factors categorized under Technology (e.g., CRM platforms, collaborative tools), Organization (e.g., top management support, customer-oriented culture, clear strategy), Human (e.g., employee skills, training, trust), and CKM Process (e.g., effective knowledge acquisition, sharing, application). Conversely, significant challenges identified include strategic issues (e.g., lack of clear objectives, difficulty measuring value), technological barriers (e.g., lack of appropriate technology, data integration issues), organizational and cultural resistance (e.g., lack of sharing culture), and human resource challenges (e.g., skill gaps, high turnover, knowledge hiding). This review consolidates current knowledge, offering valuable insights for practitioners seeking to navigate CKM implementation in service industries and providing directions for future research.

KEYWORDS *Index Terms—Challenges, Customer Knowledge Management, CKM, Success Factors, Service Sector, Systematic Literature.*

INTRODUCTION

A key element of organizational success in the age of digital transformation and elevating customer expectations is the efficient management of customer knowledge (Tseng & Wu, 2014; Wade, Bonnet, & Shan, 2020). Customer Knowledge Management (CKM) refers to the systematic process of gaining, sharing, and leveraging customer-related knowledge to enhance decision-making, innovation, and customer relationship management (Macca, Janovská, Troise, & Santoro, 2025; Migdadi, 2021; Ourzik, 2022). As businesses increasingly prioritize personalized experiences and data-driven strategies, CKM has gained prominence as both a strategic and operational imperative (Arora et al., 2021; Rahmani, Aghalar, Jebreili, & Goli, 2024).

Real-world evidence demonstrates the critical importance of effective CKM implementation. According to McKinsey & Company (2021), organizations that excel at personalization generate 40% more revenue from those activities than average players, yet 71% of consumers expect companies to deliver personalized interactions, and 76% get frustrated when this doesn't happen. A study by Gartner (2022) revealed that only 14% of organizations effectively leverage customer knowledge to drive business decisions, while 63% struggle with fragmented customer data across multiple systems. Furthermore, research by Forrester (2023) indicates that companies lose an estimated $75 billion annually due to poor customer knowledge utilization, manifested through missed cross-selling opportunities, ineffective service delivery, and high customer churn rates. Specific industry examples illustrate these challenges: in the banking sector, HSBC reported that inadequate customer knowledge integration across channels resulted in 35% of customers receiving irrelevant product recommendations in telecommunications, Vodafone acknowledged that poor CKM practices contributed to a 23% increase in customer service resolution time and a subsequent 15% drop in customer satisfaction scores and in hospitality, Marriott International invested $1.8 billion in CKM technology upgrades after recognizing that disconnected customer data systems were preventing effective personalization and loyalty program management.

The academic and professional discourse around CKM has grown considerably in the past two decades (Ourzik, 2022), encompassing diverse perspectives ranging from knowledge creation and technological enablers to organizational culture and process integration. Several foundational studies have established the theoretical and practical groundwork for CKM research. First, Tseng & Wu (2014) pioneered the examination of how customer knowledge and customer relationship management jointly impact service quality, demonstrating that organizations integrating customer knowledge into service delivery processes achieve significantly higher quality outcomes. Their work established the theoretical foundation linking CKM to organizational performance (Shahzad, Bajwa, Siddiqi, Ahmid, & Raza Sultani, 2016; Smith & Charles, 2018). Second, Khosravi & Hussin (2018) conducted a comprehensive systematic literature review identifying the antecedent factors of CKM, categorizing them into technological, organizational, and human dimensions, thereby providing a structured framework that subsequent researchers have widely adopted. Third, García-Murillo & Annabi (2002) explored the critical success factors for CKM implementation, emphasizing the importance of organizational culture and leadership commitment, while identifying technology as an enabler rather than a driver of success. Fourth, Ourzik (2022) provided an updated systematic review of CKM literature, identifying emerging trends such as the integration of artificial intelligence, social media analytics, and real-time customer engagement platforms, while highlighting the growing importance of data privacy and ethical considerations in customer knowledge utilization.

Despite the expanding body of literature, the field still lacks a unified understanding of the foundational works (bibliography), critical success factors, and persistent challenges associated with CKM implementation, especially in the service industry(Khosravi & Hussin, 2018). A significant research gap exists in the systematic and structured synthesis of CKM literature specifically tailored to service-related sectors (Jain, Singh, Mishra, & Rana, 2023; Vick & Robertson, 2018). While previous reviews have examined CKM from general or technology-centric perspectives, there is a notable absence of comprehensive frameworks that

integrate success factors and challenges across diverse service industries such as banking, telecommunications, hospitality, and contact centers. Furthermore, most existing studies focus on either success factors or challenges in isolation, without examining their interrelationships or contextual variations across different service sectors (Mikalef & Krogstie, 2020; Müller, Kiel, & Voigt, 2018). The rapid evolution of digital technologies including artificial intelligence, chatbots, social media, and cloud-based CRM platforms has fundamentally transformed how organizations manage customer knowledge, yet limited research has systematically synthesized how these technological advancements influence CKM implementation success and challenges in service contexts. Additionally, previous reviews have not adequately addressed the geographical and cultural diversity of CKM practices, with most studies concentrated in Western contexts, leaving significant knowledge gaps regarding CKM implementation in emerging markets and diverse cultural settings. This systematic literature review addresses these gaps by providing a holistic, contemporary synthesis of CKM success factors and challenges specifically within service-related sectors, incorporating recent technological developments and diverse geographical perspectives (Alahmari, Mehmood, Alzahrani, Yigitcanlar, & Corchado, 2023; Tzuhao Chen, Gascó-Hernandez, & Esteve, 2024). A comprehensive and structured synthesis of existing research is therefore essential to map the current knowledge landscape, identify research gaps, and inform future studies and practices (Chaomei Chen, 2017; Martin, Westine, Wu, & Sun, 2025).

The practical implications of ineffective CKM extend far beyond operational inefficiencies. Organizations that fail to effectively capture, organize, and utilize customer knowledge face severe consequences across multiple dimensions. From a strategic perspective, suboptimal business decisions result from incomplete or inaccurate customer insights—for example, product development teams launching offerings that do not align with actual customer needs, resulting in costly market failures and wasted R&D investments. Missed innovation opportunities represent another critical impact; without systematic CKM, organizations cannot identify emerging customer pain points, unmet needs, or evolving preferences that could drive breakthrough innovations. Customer relationships deteriorate when service interactions are impersonal, inconsistent across channels, or fail to acknowledge customer history and preferences—leading to increased customer churn, negative word-of-mouth, and diminished brand loyalty. Financial consequences are equally significant: research by Bain & Company (2020) indicates that a 5% increase in customer retention (which effective CKM facilitates) can increase profits by 25% to 95%, while the cost of acquiring new customers is five to twenty-five times higher than retaining existing ones. Competitive disadvantage ensues as organizations with superior CKM capabilities can respond more rapidly to market changes, personalize offerings more effectively, and build stronger customer relationships, leaving CKM-deficient competitors struggling to maintain market share. Regulatory and compliance risks also emerge, particularly in regulated industries like financial services and healthcare, where inadequate customer knowledge management can lead to violations of data protection regulations (GDPR, CCPA) and result in substantial fines and reputational damage.

This study provides a structured overview of CKM foundational works, critical success factors, and challenges, specifically tailored for the service industry context. The research makes several distinctive contributions to both theory and practice. Theoretically, it consolidates fragmented knowledge into a unified framework that integrates technological,

organizational, human, and process dimensions of CKM, advancing the conceptual understanding of how these elements interact to influence implementation success. The study also identifies emerging patterns and trends in CKM research, highlighting the increasing prominence of artificial intelligence, automation, and real-time analytics in customer knowledge management. Practically, this research provides actionable insights for service industry managers and practitioners by clearly delineating the critical success factors that must be prioritized and the challenges that must be anticipated and mitigated during CKM implementation. The findings enable organizations to conduct more informed cost-benefit analyses of CKM investments by understanding the full spectrum of implementation requirements and potential obstacles. Furthermore, by synthesizing evidence from diverse service sectors—including banking, telecommunications, hospitality, contact centers, and e-commerce—the study facilitates cross-industry learning and best practice identification. For policymakers and industry associations, the research highlights systemic challenges (such as skill shortages and technology standardization issues) that may require collective action or regulatory attention.

The primary aim of this research is to conduct a comprehensive systematic literature review that identifies, analyzes, and synthesizes the critical success factors and key challenges associated with Customer Knowledge Management implementation in service-related sectors. The benefits of this research are multifaceted: for academic researchers, it provides a consolidated knowledge base and identifies areas requiring further investigation; for practitioners and managers in service industries, it offers evidence-based guidance for planning and executing CKM initiatives; for technology vendors and consultants, it clarifies the requirements and pain points that their solutions must address; and for the broader service sector, it contributes to the development of more effective customer-centric strategies that ultimately enhance service quality, customer satisfaction, and organizational performance.

METHOD

A systematic Literature Review (SLR) approach was adopted in this study, adhering to the PRISMA 2020 guidelines and using the Parsif.al application to assist with screening and selecting studies.

PICOC Criteria

The Population, Intervention, Comparison, Outcome, Context (PICOC) framework was used to define the research scope and develop the search strategy, as presented in Table 1.

Table 1. PICOC Criteria

Population	Study that discusses CKM or customer-related knowledge strategies
Intervention	CKM or customer-related knowledge implementation
Comparison	-
Outcome	Success factors, challenges
Context	Study in service-related industry

Based on the PICOC framework, the following search query was constructed:

("customer knowledge management" OR "knowledge management") AND ("contact center" OR "call center" OR "customer service") AND (factor OR aspect OR variable)

Data Source

To ensure the coverage of high-quality and relevant literature, the following digital libraries and databases were used to retrieve peer-reviewed journal articles and conference proceedings:

1) ACM Digital Library (http://portal.acm.org)
2) IEEE Digital Library (http://ieeexplore.ieee.org)
3) Science@Direct (http://www.sciencedirect.com)
4) Scopus (http://www.scopus.com)
5) Taylor & Francis (https://www.taylorfrancis.com/)

Selection Criteria

The article selection process consisted of two stages: (1) screening the titles and abstracts and (2) reviewing the full texts. Each research paper was assessed on the basis of specific inclusion and exclusion criteria, as detailed in Table 2.

Table 2. Inclusion and Exclusion Criteria

Inclusion	Exclusion
Studies published in English	Studies focusing solely on technology tools (e.g., CRM software) without discussion of organizational or human factors in CKM
Studies that explicitly discuss CKM or customer-related knowledge strategies	Articles in languages other than English
Empirical studies with clearly described methodology (qualitative, quantitative, or mixed methods)	Conceptual papers without empirical data or evidence
Peer-reviewed journal articles or conference papers	Duplicate studies (same title, authors, and findings) from different databases
Studies focused on service-related industry	Studies not available in full text
Studies published between 2021 and 2025	Studies published in non-peer-reviewed venues, such as blogs, magazines, or unpublished reports
Studies that identify the factors or variables influencing CKM implementation	Studies that do not address CKM or focus only on internal knowledge management without the customer aspect

A. Quality Assessment

To assess the quality of the included studies, a structured checklist was developed based on best practices in systematic reviews. Each study was evaluated against the following criteria:

1) Does the study focus on CKM or a closely related concept (e.g., CRM, knowledge sharing with customers)?
2) Is the paper peer-reviewed and published in a reputable venue?

3) Is the study focused on or includes the context of a call center, customer service, or contact center?
4) Does the study clearly identify and discuss the factors or challenges affecting CKM implementation?
5) Is the organizational or industry context (e.g., banking, telecom, SMEs) clearly described?
6) Is the research method clearly stated (e.g., survey, case study, interview)?
7) Are the data collection and analysis techniques clearly explained and appropriate?
8) Are the findings supported by the data and logically explained?
9) Does the study discuss the limitations or threats to validity?

Each criterion was rated using a scoring system where "Yes" was assigned a value of 1, "Partially" was given 0.5, and "No" was scored as 0. Studies that achieved a total score below 6.5 were excluded from the final analysis to ensure the inclusion of only high-quality and relevant literature.

This quality assessment process helps ensure that the selected studies are not only relevant but also credible and reliable as sources of evidence for understanding success factors and challenges in CKM. Figure 1 shows the flow diagram of the PRISMA process conducted with the methodology explained above.

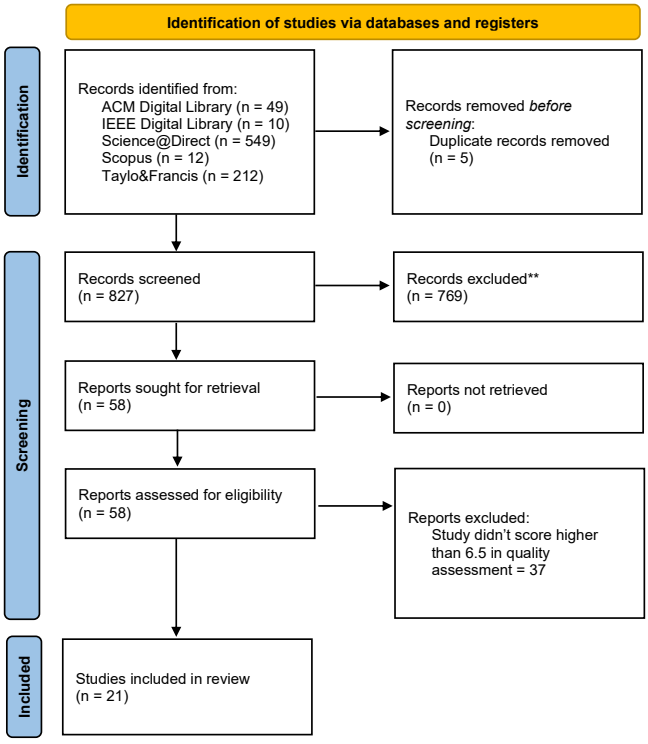

Figure 1. PRISMA 2020 Flow Diagram

The PRISMA 2020 flow diagram shows the study selection process for this systematic review. At the outset, 832 records were found through database searches. Following the elimination of 5 duplicate entries, 827 records were left to screen. Of these, 769 were discarded based on their titles and abstracts. The remaining 58 full-text articles

were evaluated for eligibility, resulting in the exclusion of 37. In the end, 21 studies satisfied the inclusion criteria and quality assessment, by that being included in the final review.

Data Extraction

The Data Extraction Form is a structured tool used in systematic reviews to ensure consistency and comprehensiveness in collecting relevant information from selected studies. Each component of the form serves a specific purpose, as outlined in Table 3.

Table 3. Data Extraction Form Component

Component	Explanation
Subject Type	Indicates the primary focus or category of the study, such as whether it involves individuals, organizations, systems, or technologies
Publisher	Refers to the journal, conference, or platform where the study was published, helping to assess the credibility and academic weight of the source
Year	The year of publication, useful for analyzing trends over time or evaluating the timeliness of the research
Author	Lists the researchers who conducted the study, which can be used to track contributions from specific experts or institutions
Keywords	Terms provided by the authors that capture the essence of the study and help in indexing and searching for related work
Country/Region	Specifies the geographical context of the research, which is important for understanding the cultural, economic, or regulatory influences on the findings.
Industry/Organization Type	Describes the sector or type of organization studied (e.g., healthcare, manufacturing, government), which provides context and enhances the applicability
Objective/Aim	Summarizes the purpose of the study and the research questions
Methodology	Details the research approach (e.g., qualitative, quantitative, mixed methods), offering an understanding of how the study was designed and executed
Data Collection Method	Specifies how the data was gathered (e.g., interviews, surveys, case studies), which is important for assessing thereliability and depth
Factor Identified	Highlights key elements or variables found to influence the subject of study (e.g., success factors, performance indicators)
Challenge Identified	Lists barriers or difficulties encountered in the context of the study, providing insight into the practical limitations or issues faced
Key Finding	The main outcomes or conclusions drawn from the study, often tied directly to the objective and providing value to the field
Practical Implication	Explains how the findings can be applied in real life, such as strategies for organizations or recommendations for practitioners

By systematically organizing information across multiple studies, the Data Extraction Form supports researchers in synthesizing evidence and drawing meaningful, evidence-based conclusions.

Data Synthesize

The process of data synthesis involves combining and interpreting the collected information from the data extraction form to produce meaningful insights and answer the research questions. In this study, the synthesis consisted of examining various fields extracted from the selected studies, including metadata (e.g., author, year, publisher), contextual details (e.g., subject type, country/region, industry/organization type), and content-based components (e.g., objective, methodology, identified factors, challenges, key findings, and practical implications).

RESULTS AND DISCUSSION

This section highlights and explains the factors influencing successful CKM implementation and the main challenges in implementing customer knowledge management in the service industry.

Table 4 categorizes studies based on their geographical location. It is divided by continent and lists the specific countries within each continent where the studies on customer knowledge management were conducted. This provides an overview of the regional focus of the existing literature reviewed in this paper.

Table 4. Geographical Distribution of the Reviewed Studies

Continent	Country	Study
Asia	China	(Cheng, Wang, Zhang, & Zhu, 2023; Guan, Xu, Gong, & Liu, 2024)
	South Korea	(Ractham et al., 2021)
	Jordan	(Awawdeh, Harb, & Zhang, 2024)
	North Africa (Algeria, Morocco, Tunisia)	(Medjani & Barnes, 2021)
	Indonesia	(Hutauruk & Lusa, 2022)
	Malaysia	(Miskam, Miskon, Abdullah, & Ali, 2021)
	Kazakhstan	(Aitchanov, Baimuratov, Zhussupekov, & Aitzhanov, 2021)
	Philippines	(Tee & Li, 2024)
	Thailand	(Cherapanukom, Yanchinda, & Sangkakom, 2021)
	Iran	(Kaffashan Kakhki, Malakooti Asl, & Parirokh, 2021)
	Bangladesh	(Gazi, Mamun, Masud, Senathirajah, & Rahman, 2024)
	Hong kong	(Ngai, Lee, Luo, Chan, & Liang, 2021)
	Vietnam	(Khanh, Phong, & Cao, 2022)
	India	(Ruby & Deepthi, 2025)
Europe	Norway	(Zhang, Følstad, & Bjørkli, 2023)
	Israel	(Nakash & Bouhnik, 2023)
	Spain	(de Andrés-Sánchez & Gené-Albesa, 2024)
	Global/Unspecified (with European affiliations)	(Khelladi, Castellano, Hobeika, Perano, & Rutambuka, 2022)
Africa	Zimbabwe	(Khelladi et al., 2022)
	South Africa	(Iwu et al., 2021)

Asia has the largest representation, with total of 15 studies. Two studies conducted in China and one study for each country in South Korea, Jordan, North Africa (Algeria, Morocco, Tunisia), Indonesia, Malaysia, Kazakhstan, Philippines, Thailand, Iran, Bangladesh, Hong Kong, Vietnam, and India. This indicates that most of the reviewed literature is concentrated in Asian contexts, reflecting diverse economic and cultural backgrounds.

Europe is represented by fewer studies, specifically from Norway, Israel, Spain, and some global or unspecified studies with European affiliations. Although fewer in number, these studies contribute to cross-regional comparisons and broaden the scope of understanding.

Africa has limited representation, with only Zimbabwe and South Africa included. Despite the smaller number, these studies provide valuable insights from the context of developing countries.

Table 5 summarizes the different service industries in which the reviewed studies were conducted. Overall, the table shows that research on CKM spread across a wide range of service industries. However, certain industries such as contact centers, banking/financial services, and telecommunications appear more prominently, highlighting their strategic importance in CKM research.

Table 5. Industry Distribution of Reviewed Studies

Type of Industry	Studies
Contact centers/Call Centers	(Aitchanov et al., 2021; Awawdeh et al., 2024; Iwu et al., 2021; Zhang et al., 2023)
Banking/Financial Services/Insurances	(de Andrés-Sánchez & Gené-Albesa, 2024; Kaondera, Chikazhe, Munyimi, & Nyagadza, 2023; Medjani & Barnes, 2021; Nakash & Bouhnik, 2023; Zhang et al., 2023)
Hotel Industry/Tourism	(Cherapanukom et al., 2021; Guan et al., 2024; Ruby & Deepthi, 2025)
Telecommunication Industry	(Awawdeh et al., 2024; Gazi et al., 2024; Hutauruk & Lusa, 2022; Iwu et al., 2021)
Airline Industry	(Khanh et al., 2022; Ractham et al., 2021)
E-commerce/Manufacturing	(Ngai et al., 2021)
Service Multi-Sided Platforms (MSPs)	(Khelladi et al., 2022)
Service Multinationals (MNEs)	(Cheng et al., 2023)
Public Sector (academic libraries and government entities)	(Kaffashan Kakhki et al., 2021; Miskam et al., 2021; Nakash & Bouhnik, 2023; Zhang et al., 2023)

Discussion about the results of the review of the above studies regarding success factors and challenges in the implementation of CKM will be explained below.

Factors Influencing Successful CKM Implementation

The successful implementation of CKM in the service industry depends on several interconnected factors: organizational culture and leadership, knowledge management strategy and processes, technology and infrastructure, human capital and training, customer involvement and focus, and continuous measurement and improvement of CKM initiatives.

A customer-oriented culture is a strong direct factor for e-CRM success and a key organizational factor for successful CKM adoption (Khanh et al., 2022; Miskam et al., 2021). Support from top management is crucial and has the biggest beneficial impact on the adoption

of Social CRM (Khanh et al., 2022; Medjani & Barnes, 2021; Miskam et al., 2021). Organizations with a strong organizational learning culture (OLC) promote knowledge creation and sharing, which is favorably correlated with both work satisfaction and knowledge sharing (Awawdeh et al., 2024). Organizational commitment also significantly influences CRM performance (Gazi et al., 2024; Iwu et al., 2021). Additionally, it is critical to have a customer-centric organizational structure and promote cross-functional collaboration (Khanh et al., 2022; Miskam et al., 2021; Ruby & Deepthi, 2025).

It is crucial to have a well-defined CKM strategy (Miskam et al., 2021) matched with more general digital transformation plans (Zhang et al., 2023) and overall business goals (Nakash & Bouhnik, 2023). This includes establishing clear success criteria and performance measures to evaluate CKM effectiveness (Nakash & Bouhnik, 2023; Zhang et al., 2023). Implementing well-defined processes for identifying, acquiring, organizing, sharing, and using customer knowledge is also a key factor (Kaffashan Kakhki et al., 2021; Khanh et al., 2022).

From a technological standpoint, a robust CRM technology platform, along with collaborative platforms and a map of knowledge, are crucial technological factors (Miskam et al., 2021). Utilizing suitable software and hardware and ensuring staff IT skills are adequate supports e-CRM and CKM success (Cherapanukom et al., 2021). Additionally, the systematic integration of social media activities and customer data into a unified CKM framework has become increasingly vital (Hutauruk & Lusa, 2022). For automated customer support, a well-designed and CKM-informed knowledge base integrated with technologies such as web crawling, Natural Language Processing (NLP), and Artificial Intelligence (AI) is vital (Ngai et al., 2021).

Human capital and training are an integral part of CKM implementation. Having qualified employees and adequate resources, coupled with continuous investment in training on CRM and CKM principles, is critical for success (Cherapanukom et al., 2021; Khanh et al., 2022; Miskam et al., 2021; Nakash & Bouhnik, 2023; Zhang et al., 2023). Such training increasingly involves equipping employees to work effectively with emerging technologies, including chatbots and service robots. Employee IT skills, including social media management and analytics, have been shown to significantly influence Social CRM usage (Medjani & Barnes, 2021). Additionally, employee attitudes, motivation, and job satisfaction are important human factors that impact CRM and CKM effectiveness (Aitchanov et al., 2021; Iwu et al., 2021).

Customer Involvement and Focus are also the central determinants of CKM success. A strong customer focus is the most critical direct driver of e-CRM success (Khanh et al., 2022; Ruby & Deepthi, 2025). Actively involving customers in knowledge creation and feedback processes serves as a key enabler of CKM (Miskam et al., 2021). Understanding and responding to customer needs and preferences, including leveraging customer input from various channels such as social media, contributes to successful CKM (Hutauruk & Lusa, 2022; Medjani & Barnes, 2021).

Finally, continuous measurement and improvement of CKM initiatives is essential to ensure long-term success. This process is facilitated when organizations establish clear success metrics and objective Key Performance Indicators (KPIs) for evaluating performance and guiding continuous improvement (Nakash & Bouhnik, 2023; Tee & Li, 2024; Zhang et al., 2023). Continuously monitoring and analyzing customer feedback, including data from digital

and online sources, is essential for service improvement (Cherapanukom et al., 2021; Ractham et al., 2021).

Main Challenges in Implementing Customer Knowledge Management in the Service Industry

Implementing CKM in the service industry presents several significant challenges that span organizational, technological, and customer-related dimensions. One of the most common issues is the justification of investment and the lack of perceived value. Organizations often struggle to justify KM investments due to unclear financial returns and the difficulty in proving KM as a profitable investment. KM is frequently not perceived as a core business function, and the benefits of KM investments are not always immediately visible. A lack of executive understanding of KM's value, coupled with the difficulty in quantifying its indirect business implications, creates further obstacle (Nakash & Bouhnik, 2023).

Another primary challenge lies in organizational resistance and lack of buy-in. Resistance to change among employees can hinder the adoption of new CKM systems and processes (de Andrés-Sánchez & Gené-Albesa, 2024; Zhang et al., 2023), while lack of top management support has been identified as a critical barrier to implementation (Medjani & Barnes, 2021). The integration of chatbots or CRM systems with existing systems often presents significant challenges (Ruby & Deepthi, 2025; Zhang et al., 2023). Systematically integrating diverse social media activities and data into a cohesive CKM strategy further adds to this complexity (Hutauruk & Lusa, 2022).

Data management and knowledge flow issues are also challenges. Ensuring that knowledge is effectively captured, stored, and shared across the organization and with customers can be difficult (Miskam et al., 2021; Nakash & Bouhnik, 2023). Service industries with remote workforces face difficulties in delivering digital services and effectively managing customer knowledge (Miskam et al., 2021). Overcoming knowledge flow barriers between the organization and physically distant customers and staff is crucial (Miskam et al., 2021). In addition, effectively analyzing large volumes of unstructured data from sources such as social media to extract meaningful customer knowledge is also a significant hurdle (Hutauruk & Lusa, 2022; Miskam et al., 2021).

Other persistent challenge concerns the measurement of CKM effectiveness. Many organizations face difficulties in establishing clear performance metrics and objective KPIs to evaluate the impact of CKM on business outcomes, such as customer satisfaction and profitability (Tee & Li, 2024; Zhang et al., 2023). Attributing achievements directly to KM initiatives is often challenging (Nakash & Bouhnik, 2023).

From the customer side, customer knowledge hiding behavior on service multi-sided platforms obstructs CKM efforts to gather insights (Khelladi et al., 2022; Ngai et al., 2021). Moreover, managing the heterogeneity of global customer demands can lead to information overload and increased knowledge processing costs for service multinationals (Cheng et al., 2023). Some organizations may also fail to fully utilize Social CRM for direct customer engagement and insight generation (Medjani & Barnes, 2021).

The technology and skills gaps further complicate the implementation. A lack of skilled personnel for chatbot development and maintenance (Zhang et al., 2023) and ensuring adequate staff IT skills to support CRM and CKM initiatives (Cherapanukom et al., 2021) are ongoing

challenges. Poor data quality management can also hinder e-CRM success (Khanh et al., 2022). Additionally, challenges often arise from specific industry contexts. In academic libraries, CKM concepts are rarely addressed or systematically implemented, and there is a lack of specific assessment tools (Kaffashan Kakhki et al., 2021). In call centers, high employee turnover and a stressful work environment can impact the effectiveness of CKM efforts (Iwu et al., 2021). Implementing chatbots requires addressing factors such as user trust, effort expectancy, and managing conversational failures (de Andrés-Sánchez & Gené-Albesa, 2024).

Finally, organizations must compete with the challenge of keeping pace with digital transformation. The rapid pace of digital transformation requires continuous adaptation of CKM strategies and technologies, which can be resource-intensive and demanding for organizations with limited capabilities (Kaondera et al., 2023).

Table 6 below provides a summary of the supporting factors and challenges discussed in the previous sections.

Table 6. CKM Success Factors and Challenges

No	Success Factors	Challenges
1	Organizational culture & leadership	Justification of investment and lack of perceived value
2	Knowledge management strategy and process	Organizational resistance and lack of buy-in
3	Technology and infrastructure	Integration challenges
4	Human capital and training	Data management and knowledge flow issues
5	Customer involvement and focus	Difficulty on establishing clear performance metrics and objective KPIs to evaluate the impact of CKM
6	Continuous measurement and improvement of CKM initiatives	Customer hiding behavior
7		Technology and skill gaps
8		Lack of specific CKM assessment tools in specific industries
9		Keeping pace with digital transformation demands constant CKM adaptation

The findings in Table 6 highlight that while critical success factors such as organizational culture, leadership, and strategic alignment play a significant role in driving CKM initiatives, challenges often arise from the very same domains. For instance, a strong organizational culture can support knowledge sharing and collaboration, yet resistance to change and lack of perceived value may undermine its effectiveness. Similarly, the presence of clear knowledge management strategies and processes contributes to consistency and scalability, but without sufficient buy-in from employees, such strategies may fail to produce the intended impact.

CONCLUSION

This systematic literature review of 21 studies highlights that the successful implementation of Customer Knowledge Management (CKM) in the service industry relies on a combination of organizational, strategic, technological, human, and customer-oriented factors, with enablers such as leadership commitment, cross-functional collaboration,

customer-focused culture, skilled employees, robust technological infrastructure, and measurable performance indicators fostering continuous improvement and sustainable value creation. At the same time, key challenges include difficulty justifying investments due to the intangible value of CKM, organizational resistance, lack of management support, integration and data management issues, limited knowledge sharing, skill deficiencies, customer behavior complexities, and industry-specific barriers, all of which are intensified by the rapid pace of digital transformation requiring constant adaptation. Given that existing research is predominantly concentrated in Asia and service-heavy sectors, future research should expand its geographical coverage to underrepresented regions such as Sub-Saharan Africa, Latin America, and Eastern Europe, while exploring emerging industries like e-commerce, platform-based businesses, and digitally enabled manufacturing, with particular attention to the implications of Industry 4.0 and platform-driven business models.

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