

AI DRIVEN CUSTOMER RELATIONSHIP MANAGEMENT AS A TOOL FOR MANAGERIAL AGILITY UNDER ECONOMIC UNCERTAINTY AND DIGITAL DISRUPTION: A SYSTEMATIC LITERATURE REVIEW

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Abstract

This paper examines how Customer Relationship Management (CRM) is being transformed by Artificial Intelligence (AI) into a managerial instrument for agility in periods marked by economic uncertainty and digital disruption. In unstable markets, customers become more selective, less predictable and more exposed to digital alternatives, which makes customer retention and fast managerial interpretation increasingly important. The objective of the paper is to analyse how AI driven CRM supports managers in understanding customer behaviour, identifying customer related risks and responding more rapidly to market changes. The study is designed as a systematic literature review, structured according to the PRISMA logic. The review is based on academic articles selected from major scientific databases and complemented by one official contextual source on the digital economy. The selected studies are examined through thematic coding, with attention to customer intelligence, predictive decision making, personalization, customer retention, organizational agility and the ethical limits of automation. The results suggest that AI driven CRM creates value not only by automating customer management activities, but especially by improving the quality and speed of managerial decisions. However, the paper also argues that agility cannot be produced by technology alone. Data privacy, customer trust, algorithmic bias and excessive automation remain critical limits. The contribution of the paper consists in developing a structured synthesis that connects AI driven CRM with managerial agility and responsible customer management under challenging business conditions.

Keywords: Artificial intelligence, Customer relationship management, Managerial agility, Customer retention, Digital disruption.

DOI: <https://doi.org/10.24818/beman/2026.S.1.6-11>

Article history: Received: 27 May 2026, Revised: 24 July 2026, Accepted: 29 July 2026, Published online: 29 July 2026

How to cite this article: Furduescu, E. N. (2026). AI driven customer relationship management as a tool for managerial agility under economic uncertainty and digital disruption: A systematic literature review. *Business Excellence and Management*, 16(S.1.6), 210–229. <https://doi.org/10.24818/beman/2026.S.1.6-11>

1. INTRODUCTION

Organizations are currently operating in a business environment shaped by economic uncertainty, digital disruption and accelerated technological change. The recent development of the digital economy has increased the pressure on firms to innovate, strengthen trust and use digital technologies more responsibly in relation to customers and society (OECD, 2024). At the same time, digital transformation has become more than the adoption of new technologies. It represents a broader organizational change through which digital resources, data and processes reshape value creation, customer interaction and competitive behaviour (Vial, 2019). In this context, managers are required to make faster decisions, interpret larger volumes of information and respond to market changes with greater flexibility.

Customer behaviour is one of the most visible areas where these changes can be observed. Customers are more informed, more connected and more able to compare alternatives across digital channels. During periods of economic pressure, they may also become more selective, more price sensitive and less loyal to established providers. As a result, maintaining customer relationships becomes not only a marketing concern, but also a managerial priority connected to organizational adaptation and continuity. Customer Relationship Management (CRM) has traditionally supported firms in collecting customer data, coordinating sales activities and improving communication with clients. However, CRM should not be reduced to a technological database. Earlier studies already emphasized that CRM combines people, processes and technology (Chen & Popovich, 2003), while strategic CRM is concerned with the creation and management of profitable customer relationships over time (Payne & Frow, 2005).

The importance of CRM is also connected to performance and retention. Customer relationship management efforts can influence customer retention and customer share development, especially when firms are able to understand customers and adapt their actions accordingly (Verhoef, 2003). Similarly, CRM processes have been associated with performance when they are measured, managed and integrated into organizational practice (Reinartz et al., 2004). These contributions show that CRM has long been more than an administrative tool. It is a managerial process through which organizations transform customer information into decisions, actions and value. Nevertheless, the traditional CRM logic becomes less sufficient when markets change quickly and when customer data become too complex to be interpreted only through routine managerial judgement.

Artificial Intelligence (AI) changes the meaning and potential of CRM because it allows organizations to process large volumes of customer data, identify behavioural patterns and support more precise customer related decisions. In marketing, AI is expected to influence strategies, sales processes, customer service and customer behaviour, but its value depends on how it complements rather than replaces human managers (Davenport et al., 2020). A strategic view of AI in marketing suggests that different forms of AI can support market analysis, segmentation, targeting, personalization and relationalization (Huang & Rust,

2021). Therefore, AI driven CRM can be understood as a shift from CRM as a system for recording past interactions toward CRM as a system for interpreting customer signals and supporting managerial action. Recent studies confirm that the connection between AI and CRM is becoming an increasingly important research area. Ledro et al. (2022) show that AI applications in CRM are linked to big data, machine learning techniques and the strategic management of AI CRM integration. Libai et al. (2020) argue that AI CRM may transform customer acquisition, customer development and customer retention by increasing firms' ability to predict customer lifetime value and personalize treatment. In the business to business context, AI based CRM has also been connected to organizational performance and competitive advantage, especially when firms manage to integrate AI with customer knowledge and relationship management capabilities (Chatterjee et al., 2021). More recent research also indicates that AI enabled CRM systems can affect competitive advantage through CRM capabilities and differentiated system features related to marketing, sales and service support (Yoo et al., 2024). These studies suggest that AI driven CRM is not only a technological development, but also a managerial mechanism through which firms may strengthen adaptation and competitiveness.

The relationship between AI driven CRM and managerial agility is especially relevant in challenging times. Organizational agility refers to the capacity to respond to uncertainty and changing conditions, but it should not be understood as constant change without direction. Teece et al. (2016) argue that agility is connected to dynamic capabilities and to the managerial ability to deal with deep uncertainty in a cost effective and strategic way. In a similar direction, information technology can support organizational agility when it improves the capacity of firms to sense, interpret and respond to environmental changes (Tallon et al., 2019). From this perspective, AI driven CRM may contribute to agility by helping managers detect changes in customer behaviour earlier, personalize responses more accurately and make customer related decisions faster.

However, the use of AI in customer management also creates important tensions. AI can improve prediction, automation and personalization, but it can also generate privacy concerns, customer discomfort, algorithmic bias and excessive dependence on automated recommendations. Davenport et al. (2020) underline that privacy, bias and ethics are central issues in the future of AI in marketing. Bleier et al. (2020) also show that consumer privacy is a critical condition for the future of data based innovation and marketing. Moreover, customers may react differently to AI depending on how they experience automated interaction, perceived control and the human dimension of the relationship (Puntoni et al., 2021). Therefore, the managerial value of AI driven CRM does not come only from automation, but from the responsible combination of data, technology and human judgement.

Starting from these arguments, this paper examines how AI driven CRM can support managerial agility under economic uncertainty and digital disruption. The study is designed as a systematic literature review structured according to the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) logic. The objective is not only to summarize previous studies, but to organize them through thematic coding and develop a clearer conceptual understanding of the mechanisms through which AI driven CRM contributes to managerial agility. The paper focuses on customer intelligence, predictive decision making, customer retention, personalization and the ethical limits of automation.

The main research question is: How can AI driven Customer Relationship Management support managerial agility in times of economic uncertainty and digital disruption?

The contribution of this paper is threefold. First, it connects the literature on CRM, AI, digital transformation and organizational agility in a single analytical framework. Second, it uses a PRISMA based review logic to select and organize relevant academic contributions. Third, it proposes a thematic synthesis showing that AI driven CRM supports managerial agility through customer intelligence, early identification of customer related risks, predictive decision making and personalized managerial responses. At the same time, the paper argues that this contribution remains limited if managers neglect privacy, trust, algorithmic bias and the risk of over automation. Thus, AI driven CRM is approached not as a substitute for managerial judgement, but as a strategic support system for responsible adaptation in challenging business conditions.

2. LITERATURE REVIEW

Customer Relationship Management did not start as a futuristic idea. It started from a very practical managerial problem: how can a firm remember its customers, follow their behaviour and use this knowledge without losing the human logic of the relationship? In its earlier form, Customer Relationship Management (CRM) was often connected with databases, sales records and contact management. Yet the literature quickly moved beyond this narrow interpretation. Chen and Popovich (2003) argue that CRM links people, processes and technology, which means that the value of CRM does not come from software alone. A company may store customer data and still know very little about its customers if the data are not connected to managerial routines and decisions.

Payne and Frow (2005) give CRM a more strategic meaning, describing it as a framework through which organizations create value from customer relationships. This view is important because it separates CRM from a simple administrative function. CRM becomes a way of deciding which customers matter, how relationships should be developed and how customer knowledge should circulate inside the organization.

From this perspective, CRM is not just a system used by sales departments. It is a managerial architecture through which the organization learns from the market.

This strategic role becomes clearer when CRM is connected to retention and performance. Verhoef (2003) shows that CRM efforts can influence customer retention and customer share development, while Reinartz et al. (2004) link CRM processes with performance when they are properly implemented and measured. These studies are useful because they show that customer relationships are not passive assets. They need to be interpreted, protected and developed. A customer does not usually leave a firm in one sudden moment. The decision often appears after several small signals: lower engagement, weaker satisfaction, price sensitivity, delayed responses or reduced trust. CRM becomes valuable when it helps managers notice these signals before the relationship is already lost.

Digital transformation changes the scale of this problem. Customers now interact with firms through websites, platforms, mobile applications, reviews, social networks, chatbots and service channels. The result is not only more data, but also more fragmented data. Vial (2019) explains digital transformation as a process that reshapes value creation through digital technologies. In customer management, this means that the relationship is no longer contained in a single sales conversation or service encounter. It is distributed across many digital traces. The challenge for managers is no longer only to collect information, but to transform dispersed signals into useful interpretation.

This is where Artificial Intelligence (AI) becomes relevant for CRM. AI allows firms to process larger volumes of customer data, identify patterns and support predictions that would be difficult to obtain through manual analysis. Davenport et al. (2020) argue that AI can reshape marketing strategy, sales and customer service, but they also underline that AI works best when it augments human managers. This distinction is essential. AI driven CRM should not be understood as a machine that manages customers instead of people. It is better understood as a system that gives managers a sharper view of customer behaviour, while leaving judgement and responsibility in human hands.

Huang and Rust (2021) offer a useful lens by separating AI into mechanical, thinking and feeling forms. Mechanical AI can automate routine tasks, thinking AI can support analysis and decision making, while feeling AI can help interpret emotions and relational cues. This distinction matters because CRM is not only about classification and prediction. It also includes trust, dissatisfaction, perceived fairness and the quality of interaction. A firm can personalize a message and still make the customer feel manipulated. It can predict churn and still respond in a cold or inappropriate way. Therefore, AI driven CRM must be evaluated not only by analytical accuracy, but also by its contribution to the relationship itself.

Ma and Sun (2020) make a similar point when they discuss machine learning and AI in marketing as a connection between computing power and human insight. The phrase is important because it avoids a

common trap: assuming that data automatically becomes knowledge. In CRM, a churn score, a recommendation engine or a segmentation model is only the beginning of interpretation. The managerial question is what should be done with that output, when action is appropriate and how the customer will perceive the response. AI can indicate a pattern, but it cannot fully understand the context of a relationship.

The literature dedicated specifically to AI and CRM shows that the field is expanding, but it is still not fully integrated. Ledro et al. (2022) identify three main streams: big data and CRM as a database, AI and machine learning applied to CRM activities, and the strategic management of AI CRM integration. This classification shows the movement from storage to intelligence. CRM first helped firms keep customer memory. Later, it supported relationship processes. Now, with AI, it can become a system for anticipation. The present paper is mainly interested in this third stage, where AI CRM becomes part of managerial adaptation.

Libai et al. (2020) show why this transformation is not neutral. AI CRM can improve customer acquisition, development and retention by strengthening the prediction of customer lifetime value. This creates clear managerial advantages, because firms can allocate resources more precisely. However, it also creates a more delicate problem. If AI helps firms decide which customers deserve attention, personalization can easily become prioritization, and prioritization can become unequal treatment. In other words, AI CRM does not only make relationship management smarter. It also makes it more selective, which requires managerial responsibility.

The Business to Business (B2B) context makes these issues even more relevant. B2B relationships are usually longer, more complex and more dependent on trust than ordinary consumer transactions. Chatterjee et al. (2021) show that AI based CRM can influence organizational performance and competitive advantage in B2B settings. Their study suggests that the move from traditional CRM to AI based CRM is not a minor technical update. It changes how firms organize relationship activities, use customer data and support managerial decisions. Saura et al. (2021) also show that AI based CRMs are important in B2B digital marketing because connected ecosystems require data driven decision making and the identification of patterns in market behaviour. In this context, AI driven CRM becomes a way of reading the market through the customer.

Recent research makes this argument more concrete. Yoo et al. (2024) examine AI enabled CRM systems and show that marketing, sales and service support features influence CRM capability, which then affects performance and competitive advantage. This is important because it shows that technology does not create value by its mere presence. What matters is whether the organization can convert AI CRM features into capabilities. A sophisticated system can remain useless if employees do not trust it, if managers do not understand its outputs or if customer insights do not reach the people who make decisions.

Kumar and Shankar (2025) take the discussion directly toward agility by examining Generative AI enabled CRM solutions. Their study connects adoption with organizational agility and also shows the role of trust, value perceptions, resistance and technostress. This is a useful reminder that agility is not produced automatically by new technology. A firm can own advanced AI tools and still remain slow, confused or internally fragmented. Agility appears only when technology is absorbed into routines, decisions and behaviour.

The agility literature helps clarify this point. Teece et al. (2016) argue that organizational agility must be understood through dynamic capabilities and the management of deep uncertainty. Agility is not simply the ability to move fast. It is the ability to know when change matters, which signals deserve attention and how resources should be reconfigured without destroying efficiency. Tallon et al. (2019) similarly connect information technology with organizational agility by showing how digital systems can support sensing and responding to environmental change. AI driven CRM fits this logic because customer behaviour is one of the earliest places where uncertainty becomes visible. Falling engagement, changing preferences, reduced loyalty or increasing complaints can all become weak signals of market pressure.

Still, AI driven CRM also creates a fragile zone between usefulness and intrusion. Bleier et al. (2020) show that consumer privacy is central to the future of data based marketing innovation. For CRM, this means that the same data that allow personalization can also create suspicion. Customers may appreciate relevance, but they may reject the feeling of being watched too closely. Puntoni et al. (2021) add that consumers experience AI through convenience, control, discomfort and the perceived loss of human presence. This is why AI driven CRM cannot rely only on prediction scores. A customer identified as likely to leave still requires a response shaped by timing, tone and managerial judgement.

Mariani et al. (2022) also show that AI research in marketing increasingly considers customer experience, behaviour and ethical consequences, not only technical performance. This direction is important for the present paper because CRM is ultimately relational. Prediction is useful only if it improves the way the firm understands and serves the customer. Personalization is valuable only if it creates relevance without damaging trust. Automation is efficient only if it does not erase the human meaning of the relationship.

Overall, the literature shows a clear but unfinished movement. CRM evolved from customer memory, to relationship strategy, to AI supported interpretation. AI now gives CRM the possibility to become faster, more predictive and more adaptive. However, the connection between AI driven CRM and managerial agility is still scattered across several research streams: CRM, AI in marketing, digital transformation, B2B relationship management, privacy and organizational agility. This paper brings these streams together. Its argument is that AI driven CRM supports managerial agility through customer intelligence, early identification of customer risks, predictive decision making, personalization and responsible customer

management. The point is not that AI replaces managers, but that it can help them see customer change earlier and respond with more precision under uncertainty.

3. METHODOLOGY

This paper uses a systematic literature review approach in order to examine how Artificial Intelligence (AI) driven Customer Relationship Management (CRM) can support managerial agility under economic uncertainty and digital disruption. The review was structured according to the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) logic, which supports a transparent process of identifying, screening and selecting relevant studies (Page et al., 2021). This method was considered appropriate because the topic connects several research areas, including CRM, AI in marketing, customer retention, digital transformation, competitive advantage and organizational agility.

The literature search focused mainly on peer reviewed academic articles published between 2003 and 2025. Earlier articles were retained only when they provided foundational arguments on CRM, while recent articles were used to capture the development of AI driven CRM and agility oriented management. The search was conducted through major academic databases and publisher platforms, including Web of Science, Scopus, Elsevier ScienceDirect, SpringerLink, Emerald Insight, Wiley Online Library and SAGE Journals. The main keywords used in different combinations were “Customer Relationship Management”, “CRM”, “Artificial Intelligence”, “AI driven CRM”, “AI enabled CRM”, “customer retention”, “predictive analytics”, “digital transformation”, “competitive advantage”, “organizational agility” and “managerial agility”. The selection process followed four PRISMA stages: identification, screening, eligibility and inclusion (Figure 1). In the first stage, potentially relevant records were collected from the selected databases. In the screening stage, duplicates, non-academic materials and studies without a clear connection to the topic were removed. In the eligibility stage, titles, abstracts and, where necessary, full texts were examined. Finally, the most relevant peer reviewed articles were retained for thematic analysis.

The final reference list includes 21 sources. Nineteen peer reviewed academic articles were retained for thematic analysis, one methodological article was used to support the PRISMA based design, and one OECD report was used only as a contextual source for the introduction. The OECD report was not included in the thematic academic corpus.

The inclusion criteria referred to articles written in English, published in peer reviewed journals and focused on CRM, AI in marketing, AI enabled CRM, customer retention, predictive analytics, digital transformation, organizational agility, managerial agility or competitive advantage. The exclusion criteria referred to duplicated records, non-academic materials, purely technical papers without managerial relevance and studies unrelated to customer management or organizational adaptation.

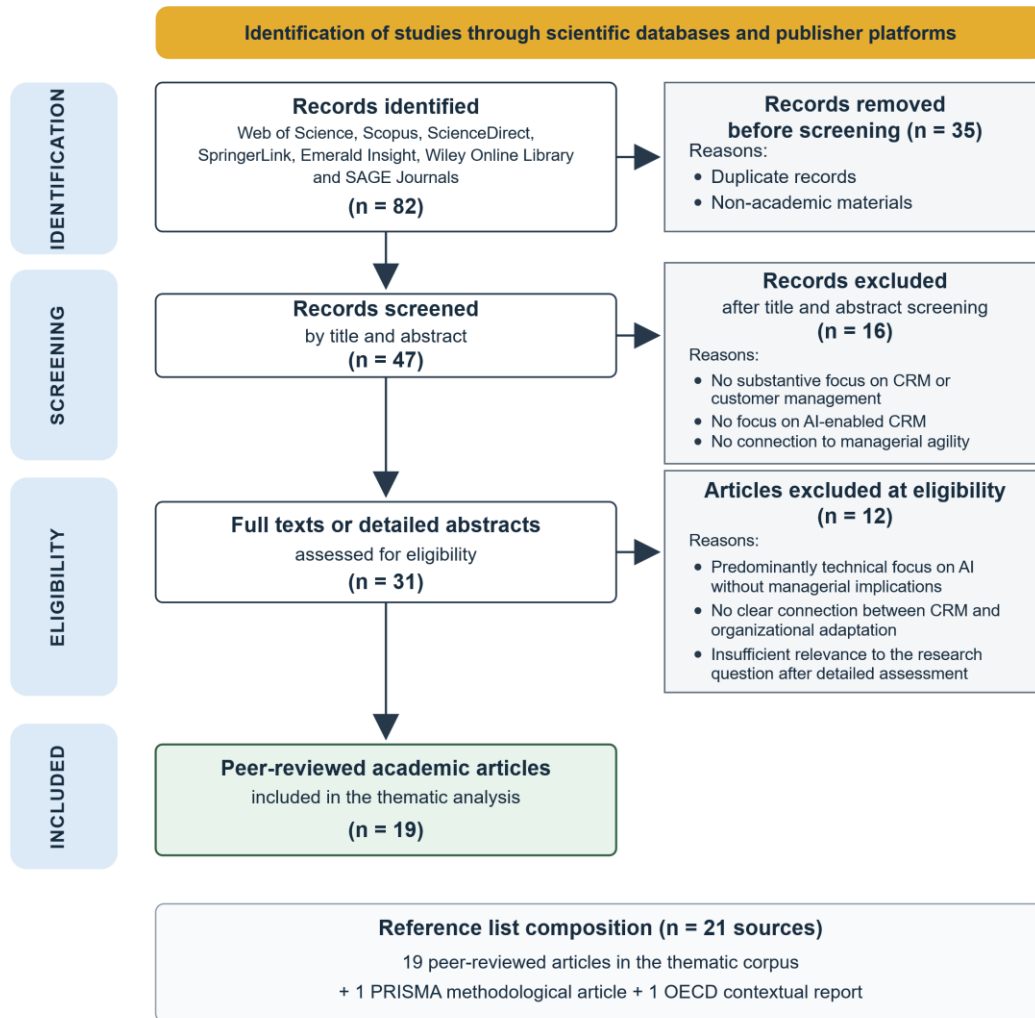


FIGURE 1. PRISMA FLOW DIAGRAM OF THE STUDY SELECTION PROCESS

Source: Author's own compilation based on Page et al. (2021).

The retained academic studies were analysed through thematic coding. The coding process focused on six themes: customer intelligence, customer retention, predictive decision making, personalization, managerial agility and responsible use of AI. This approach allows the review to move beyond a descriptive presentation of previous studies and to identify the mechanisms through which AI driven CRM may support managerial agility. A limitation of the methodology is that the paper does not provide primary empirical evidence through interviews, surveys or case studies. However, the systematic review approach is suitable for clarifying the conceptual relationship between AI driven CRM and managerial agility.

4. RESULTS AND DISCUSSION

The review indicates that AI driven CRM should not be interpreted as a simple modernization of customer databases. Its managerial relevance appears when customer data become a source of earlier interpretation, faster response and more disciplined adaptation. Traditional CRM helped organizations remember customers. AI driven CRM helps organizations read customer movement while it is still uncertain, incomplete and not yet visible in financial results. This is especially important in disrupted markets, where customer change rarely appears first as a formal complaint. It often appears as small behavioural changes, weaker engagement, longer decision times, declining loyalty, stronger price sensitivity or a shift toward competitors.

The reviewed studies suggest that CRM has evolved from customer memory to customer intelligence. Early CRM literature emphasized the integration of people, processes and technology and the strategic management of customer relationships (Chen & Popovich, 2003; Payne & Frow, 2005). Later contributions connected CRM with retention, customer share and performance (Verhoef, 2003; Reinartz et al., 2004). More recent studies show that digital transformation and AI have changed the nature of customer management by increasing the speed, volume and complexity of customer data (Vial, 2019; Davenport et al., 2020; Huang & Rust, 2021; Ma & Sun, 2020). Therefore, the main result of the review is that AI driven CRM creates value when it transforms customer data into managerial sensemaking, not when it only automates isolated activities.

The analytical synthesis presented in Table 1 organizes the reviewed literature according to the main research streams that support the argument of the paper. This is useful because AI driven CRM is positioned between strategic CRM, digital transformation, AI in marketing, B2B relationship management, organizational agility and responsible customer management. Each stream contributes a different part of the argument: CRM explains the strategic role of customer relationships, AI explains the shift toward prediction and personalization, while agility explains why sensing and response matter under uncertainty. Therefore, Table 1 provides the conceptual map of the review and prepares the more detailed managerial mechanisms developed later in Table 2.

The first result concerns customer intelligence. The reviewed literature shows that AI driven CRM changes the role of customer data. In traditional CRM, data often described what had already happened. In AI driven CRM, data can also indicate what may happen next. This movement from description to anticipation is central for managerial agility. For example, an ordinary CRM system may show that a customer has reduced purchases, while an AI driven CRM system may connect this behaviour with similar patterns, estimate churn probability and suggest a retention action. The managerial value is not only that the system is faster. The value is that it helps managers see a problem before it becomes irreversible.

TABLE 1. ANALYTICAL SYNTHESIS OF THE REVIEWED LITERATURE

Research stream	Main studies	Analytical contribution	Managerial interpretation	Link with managerial agility
CRM as a strategic customer process	Chen and Popovich (2003); Payne and Frow (2005); Verhoef (2003); Reinartz et al. (2004)	CRM is presented as more than customer data storage. It connects people, processes, technology, retention and performance.	CRM becomes a managerial system for organizing customer knowledge and turning it into decisions.	Provides the foundation for seeing CRM as a capability that can support adaptation, not only administration.
Digital transformation and AI in marketing	Vial (2019); Davenport et al. (2020); Huang and Rust (2021); Ma and Sun (2020); Mariani et al. (2022)	Digital transformation increases data complexity, while AI supports analysis, prediction, personalization and decision support.	The managerial problem shifts from collecting customer information to interpreting it quickly and responsibly.	Supports agility by improving the firm's ability to sense market changes through customer data.
AI driven CRM as customer intelligence	Ledro et al. (2022); Libai et al. (2020); Chatterjee et al. (2021); Saura et al. (2021); Yoo et al. (2024)	AI CRM is linked to big data, machine learning, customer lifetime value prediction, sales support, service support and competitive advantage.	AI driven CRM becomes useful when technical features are transformed into customer knowledge and organizational routines.	Contributes to agility by reducing the delay between customer change and managerial response.
AI CRM in Business to Business contexts	Chatterjee et al. (2021); Saura et al. (2021); Yoo et al. (2024); Kumar and Shankar (2025)	B2B relationships are data intensive, complex and dependent on trust. AI CRM can support performance, competitive advantage and agility.	In B2B markets, AI CRM helps managers coordinate relationship information across sales, service and digital marketing activities.	Supports agility by helping firms react faster to complex buyer behaviour and changing relationship conditions.
Organizational agility and uncertainty	Teece et al. (2016); Tallon et al. (2019); Kumar and Shankar (2025)	Agility is not simple speed. It depends on sensing, interpretation, resource reconfiguration and the ability to manage uncertainty.	AI driven CRM is valuable when it becomes part of the organization's sensing and response system.	Shows that CRM based agility depends on managerial capability, not on technology adoption alone.
Responsible customer management	Bleier et al. (2020); Puntoni et al. (2021); Libai et al. (2020); Davenport et al. (2020); Mariani et al. (2022)	AI and data based personalization can create privacy risks, discomfort, discrimination and loss of human presence.	Customer intelligence must be balanced with trust, transparency and human judgement.	Agility becomes sustainable only when fast responses do not damage customer trust or fairness.

Source: Author's own conceptualization based on the reviewed literature.

This result is supported by Ledro et al. (2022), who show that AI in CRM is connected with big data, machine learning and strategic integration. Libai et al. (2020) also show that AI CRM can influence

customer acquisition, development and retention through improved prediction of customer lifetime value. However, this also creates a managerial tension. When AI identifies which customers are more valuable, managers may be tempted to allocate attention only to profitable customers. This can improve efficiency, but it may also create unequal treatment and reputational risk. Therefore, customer intelligence is useful only when it is governed by managerial judgement.

The second result refers to customer retention under uncertainty. Retention becomes more difficult when customers are more price sensitive, more exposed to digital alternatives and less predictable. Verhoef (2003) and Reinartz et al. (2004) show that CRM processes are connected with retention and performance, but AI changes the timing of retention. Instead of reacting after customer dissatisfaction is visible, firms can detect early signs of disengagement. In this sense, AI driven CRM acts as an early warning mechanism. It allows managers to intervene while the relationship can still be repaired.

The third result concerns decision making. AI driven CRM supports agility because it reduces the distance between customer signal and managerial action. Davenport et al. (2020) argue that AI can reshape marketing strategy, sales and customer service, while Huang and Rust (2021) show that AI can support automation, analysis and relational interpretation. Ma and Sun (2020) also emphasize the connection between computing power and human insight. These contributions indicate that AI driven CRM does not create value only by processing data. It creates value when analytical outputs become usable managerial insight.

The Business to Business literature confirms this mechanism. Chatterjee et al. (2021) show that AI based CRM can influence organizational performance and competitive advantage. Saura et al. (2021) show that AI based CRMs are important in B2B digital marketing because connected ecosystems require data driven decision making. Yoo et al. (2024) add that AI enabled CRM characteristics related to marketing, sales and service support can influence CRM capability and competitive advantage. These studies suggest that AI driven CRM becomes a source of agility only when its features are absorbed into organizational capabilities.

The fourth result is that AI driven CRM does not automatically generate agility. A firm may own advanced AI tools and still remain slow if managers do not trust the system, if employees do not understand it or if insights remain isolated inside departments. Teece et al. (2016) argue that agility must be connected with dynamic capabilities and the management of uncertainty. Tallon et al. (2019) also show that information technology supports organizational agility when it improves the firm's ability to sense and respond. Kumar and Shankar (2025) strengthen this point by connecting Generative AI enabled CRM adoption with organizational agility, while also showing the importance of trust, resistance and technostress.

The fifth result concerns the responsible use of AI. The same data that make customer personalization possible can also make customers feel monitored. Bleier et al. (2020) show that privacy is a central

condition for the future of data based marketing innovation. Puntoni et al. (2021) show that consumers can experience AI as convenient, but also as uncomfortable when control, empathy or human presence are reduced. Mariani et al. (2022) also indicate that AI research in marketing increasingly needs to consider customer experience and ethical consequences. For AI driven CRM, this means that faster decisions are not necessarily better decisions.

The mechanisms identified in the review can be understood as a movement from customer information to managerial response. AI driven CRM does not create agility through one isolated function, such as automation or prediction, but through a connected sequence in which customer data become intelligence, intelligence supports early risk identification, and managers transform these signals into retention actions, service adjustments, sales prioritization or personalized communication. Therefore, Table 2 translates the thematic coding into six managerial mechanisms that explain how AI driven CRM can support agility in practice, while also showing that each mechanism depends on important boundary conditions such as data quality, trust, employee adoption and human judgement.

In this sense, the table should be read as the conceptual core of the review. It connects the literature with the managerial logic of the paper and shows where the main contribution of the study is located.

Based on the mechanisms presented in Table 2, the main contribution of the review is the identification of a managerial chain through which AI driven CRM can support agility. The chain starts with customer data, but it does not end there. Data must first become customer intelligence. Customer intelligence must then support early risk identification. Risk identification must lead to predictive and personalized decisions. Finally, these decisions must be filtered through responsibility, trust and human judgement. Without this final condition, agility may become nothing more than fast automation.

This interpretation allows AI driven CRM to be understood as a managerial support system rather than a technological shortcut. The system can help managers notice customer change earlier, but it cannot decide alone what is fair, appropriate or strategically wise. A customer who is likely to leave may need a discount, a service correction, a personal conversation or no intervention at all. The prediction may be technical, but the response remains managerial.

Therefore, AI driven CRM creates value through three conditions. First, customer data must be integrated and interpretable. Second, AI outputs must be connected to managerial routines and organizational capabilities. Third, the use of AI must preserve trust and the human quality of customer relationships. When these conditions are present, AI driven CRM can help organizations move from reactive customer management to anticipatory and responsible customer management.

The discussion also shows that economic uncertainty and digital disruption make this transformation more relevant. In stable markets, delayed interpretation may be less damaging. In unstable markets, delay can

quickly become loss of customers, reputation or competitive position. AI driven CRM does not remove uncertainty, but it can reduce the blindness with which managers face it. It gives organizations a more sensitive way of reading customer behaviour and a faster way of preparing responses.

TABLE 2. MECHANISMS THROUGH WHICH AI DRIVEN CRM SUPPORTS MANAGERIAL AGILITY

Mechanism identified through thematic coding	Evidence from the reviewed literature	What changes in managerial practice	Contribution to managerial agility	Main risk or boundary condition
Customer intelligence	CRM connects people, processes and technology, while AI driven CRM adds data integration, pattern recognition and machine learning based interpretation.	Managers no longer rely only on historical customer records. They can interpret patterns across sales, service and digital interactions.	Improves the capacity to sense customer change earlier.	Poor data quality or fragmented systems can create misleading interpretations.
Early identification of customer risk	CRM influences retention and customer share, while AI improves the prediction of customer lifetime value, disengagement and churn related behaviour.	Retention becomes more anticipatory. Managers can act before dissatisfaction becomes customer loss.	Reduces the delay between weak customer signals and corrective action.	Customers may be reduced to scores, categories or predicted value.
Predictive decision making	AI supports analytical decision making in areas such as segmentation, targeting, service response and sales prioritization.	Decisions become more evidence informed and more precise in customer related situations.	Increases speed and precision under uncertainty.	Excessive dependence on algorithmic recommendations may weaken managerial judgement.
B2B relationship adaptation	AI based CRM supports performance and competitive advantage in complex B2B settings and helps firms manage customer knowledge across functions.	Managers can coordinate relationship information more effectively across marketing, sales and service activities.	Helps firms respond faster to changing buyer behaviour and relationship pressure.	AI adoption creates value only when system features become organizational capabilities.
Organizational agility	AI driven CRM strengthens sensing, interpretation and response capabilities and supports the shift from reactive to anticipatory customer management.	CRM becomes part of the firm's broader adaptation process rather than a stand alone technical system.	Helps organizations respond more rapidly and more coherently to uncertainty.	Trust, resistance and technostress may limit adoption and reduce agility.
Responsible personalization	Personalization becomes more relevant and timely, but it must remain transparent and fair.	Managers must combine AI based recommendations with customer sensitivity, trust and ethical awareness.	Makes agility sustainable by protecting the quality of the relationship.	Intrusive personalization and over automation can damage trust and customer comfort.

Source: Author's own conceptualization based on the thematic coding of the reviewed studies.

Thus, the central result of the review is that AI driven CRM supports managerial agility through customer sensing. The firm does not become agile because it owns AI. It becomes agile when AI helps managers understand customer change earlier, respond more precisely and protect the relationship while doing so. In challenging times, the difference between recording customers and sensing customers becomes decisive. Recording explains what has already happened. Sensing helps managers prepare for what may happen next.

These findings provide the basis for the conclusions, where the main contribution of the review, its managerial implications and its research limitations are summarized.

5. CONCLUSIONS

This paper examined how AI driven CRM can support managerial agility under economic uncertainty and digital disruption. The starting point of the research was the observation that customer relationships have become one of the most sensitive areas where market instability becomes visible. Before a company sees the full impact of disruption in sales, profitability or market share, it may already observe weaker customer engagement, longer decision times, stronger price sensitivity, lower tolerance for service problems or a higher openness toward competitors. In this context, customer management is no longer only a marketing function. It becomes part of the organization's capacity to understand change and respond before customer loss becomes irreversible.

The main research question of the paper was: How can AI driven Customer Relationship Management support managerial agility in times of economic uncertainty and digital disruption? The answer developed through the review is that AI driven CRM supports agility by improving the organization's ability to sense, interpret and respond to customer change. The value of AI driven CRM does not come only from automation or from the technical ability to process large volumes of customer data. Its deeper value appears when data are transformed into customer intelligence, when this intelligence helps managers identify early signs of customer risk and when the resulting decisions remain connected to responsibility, trust and human judgement.

5.1 Theoretical implications

The paper contributes to the literature by proposing a thematic synthesis that connects CRM, AI, digital transformation and managerial agility in one analytical perspective. The review suggests that AI driven CRM works through a managerial chain. First, customer data must become interpretable customer intelligence. Second, this intelligence must support the early identification of risks, such as churn,

dissatisfaction, declining engagement or reduced customer value. Third, risk identification must lead to predictive and personalized decisions. Finally, those decisions must be filtered through managerial responsibility. Without this final filter, agility may become only fast automation. In that case, the organization may respond quickly, but not necessarily wisely.

One of the central ideas of the paper is the distinction between recording customers and sensing customers. Traditional CRM helped firms record customer interactions, organize contact histories and manage relationship information. AI driven CRM can go further by helping firms sense customer movement while it is still developing. This distinction is especially relevant in challenging times. A firm that only records customers understands mainly the past. A firm that senses customers can prepare for what may happen next. Therefore, AI driven CRM should not be seen only as a more advanced database. It should be understood as a managerial support system that helps organizations read weak signals in customer behaviour and act with greater precision.

5.2 Managerial implications

From a managerial perspective, the findings suggest that firms should not treat AI driven CRM as a simple software investment. The adoption of an AI based platform does not automatically create agility. The system creates value only when it is connected to organizational routines, employee capabilities and strategic decision making. Managers need to understand what the system shows, how reliable its outputs are and how those outputs should be translated into action. A customer identified as likely to leave, for example, does not always need the same response. In one case, the appropriate action may be a personalized offer. In another case, it may be a service correction, a direct conversation, a change in communication tone or even no immediate intervention. The prediction may be generated by the system, but the response remains a managerial act.

The review also shows that AI driven CRM can support a more anticipatory form of customer management. In reactive customer management, firms respond after dissatisfaction becomes visible or after customers have already reduced their engagement. In anticipatory customer management, firms use customer intelligence to detect problems earlier and respond before the relationship deteriorates. This shift is important because economic uncertainty and digital disruption reduce the time available for managerial reaction. When customers have many alternatives and switching becomes easier, delayed interpretation can quickly become customer loss. AI driven CRM can reduce this delay by giving managers a more sensitive view of customer behaviour.

However, the paper also emphasizes that agility must not be separated from responsibility. Faster decisions are not automatically better decisions. Personalization can become intrusive if customers feel monitored rather than understood. Prediction can become unfair if customers are reduced only to scores

or expected profitability. Automation can weaken the relationship if it removes empathy, discretion and human presence from important customer interactions. For this reason, responsible use is not a secondary ethical addition to AI driven CRM. It is one of the conditions that allows AI driven CRM to create sustainable managerial value.

The limits of AI driven CRM are therefore significant. Poor data quality, fragmented systems, algorithmic bias, excessive dependence on automated recommendations, employee resistance, technostress and customer discomfort can reduce or even reverse the positive effects of the system. These limits show that technology cannot replace managerial judgement. Instead, it changes the conditions under which judgement is exercised. Managers gain access to faster and more detailed customer signals, but they also become responsible for deciding how those signals should be used. The central managerial challenge is not simply to have more data, but to use data without damaging the relationship that gives it value.

5.3 Research limitations and future directions

The main limitation of this paper is that it is based on a systematic literature review and does not include primary empirical research. The study does not measure the direct impact of AI driven CRM in a specific organization, industry or national context. It also does not compare firms with different levels of AI CRM maturity. Future research could address these limits through interviews with managers, surveys among CRM users or case studies of firms that integrate AI driven CRM into marketing, sales and service processes. Future studies could also examine how customers perceive AI based personalization and whether their acceptance differs across industries, generations or cultural contexts.

Another direction for future research concerns the human side of AI driven CRM. More attention should be given to how managers and employees interpret AI recommendations, how much they trust them and when they decide to override them. This is important because the success of AI driven CRM depends not only on technical accuracy, but also on organizational learning. A system may produce valuable insights, but those insights create no value if employees ignore them, misunderstand them or use them mechanically. Future research could therefore explore the relationship between AI literacy, employee trust, managerial judgement and customer relationship outcomes.

Overall, this paper argues that AI driven CRM should be understood as a strategic support system for anticipatory and responsible management. Its purpose is not to replace managers, but to sharpen their capacity to notice, interpret and respond. In challenging business conditions, the firms that benefit most from AI driven CRM will not necessarily be those that collect the largest amount of customer data. They will be the firms that know how to transform customer data into intelligence, intelligence into timely action and action into relationships that remain trusted. The real managerial promise of AI driven CRM is

therefore not only faster customer management, but better customer sensing under uncertainty. In this sense, customer sensing represents the essential link between AI capabilities and managerial agility under uncertainty, because it allows organizations to transform fragmented customer signals into timely managerial understanding while preserving the human judgement, responsibility and relationship orientation required for an appropriate response.

ACKNOWLEDGEMENTS

The author would like to acknowledge the Bucharest University of Economic Studies for the academic environment and for facilitating access, through the Enformation platform, to scientific databases.

DECLARATION OF COMPETING INTEREST

The author declares that he has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The author declares that he has not used any Generative AI and/or AI-assisted technologies during the preparation of this work.

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