



Full length article

# Agentic AI and Autonomous Marketing Systems: A Systematic Review and Integrative Framework

**Emad Ramezanie**

University Putra Malaysia

ORCID: <https://orcid.org/0009-0002-0533-6964>

\*Corresponding e-mail: [emadramezanie65@icloud.com](mailto:emadramezanie65@icloud.com)

## Article Info

Received: 17.02.2026

Accepted: 25.04.2026

Available online: 30.05.2026

## **Keywords:**

Agentic AI; autonomous marketing;  
marketing automation; generative AI;  
AI governance; systematic review

## **DOI:**

<https://doi.org/10.59857/khwrgh17>

## ABSTRACT

Agentic artificial intelligence describes systems that plan and carry out multi-step workflows, use external tools, and adapt from feedback with limited human prompting. In marketing, the shift from content generation to autonomous decision and execution may improve speed, learning, and personalization, while also amplifying governance risks related to privacy, fairness, compliance, and brand harm. An open-source systematic review was conducted using PRISMA 2020, focusing on marketing-relevant applications, autonomy configurations, oversight mechanisms, and reported outcomes. An open-only search of arXiv, ACM Digital Library metadata, and DOI/publisher landing pages yielded 26 eligible studies. Building on this evidence, an integrative framework is proposed that links antecedents, agent design, governance controls, value mechanisms, and performance-risk trade-offs. The paper concludes with a research agenda aimed at producing cumulative, testable knowledge for responsible autonomous marketing systems.

## **1. Introduction**

Across many firms, AI is no longer confined to discrete tasks such as forecasting, segmentation, or content generation. Instead, teams are beginning to connect models, rules, and automation into systems that coordinate decisions and execution across channels, rather than treating AI as a stand-alone tool. Generative AI has already reshaped how marketing content is drafted, tested, and scaled across campaigns. Recent work in marketing and information systems discusses implications for strategy, implementation, and governance (Cillo & Rubera, 2025; Grewal et al., 2025). Practitioner-oriented research also highlights broader use of AI-driven automation in digital marketing, particularly for execution and personalization (Chuunga et al., 2025).

Digital marketing operates as a tightly coupled system: creative, targeting, bidding, and service interactions unfold in near real time and can quickly exceed human attention. Higher-autonomy systems may accelerate learning and improve coordination across channels, but they also expand the set of decisions that must be governed and audited.

In this review, agentic AI refers to systems that take a goal, break it into a multi-step plan, and invoke external tools to execute the steps. These systems can update their behavior from feedback and, for routine tasks, require less continuous prompting (Wang et al., 2023). In marketing contexts, agents may generate creative variants, reallocate bids and budgets, and trigger lifecycle messages across channels. They may also triage service requests, monitor performance dashboards, and escalate anomalies when rules or risk thresholds are exceeded. Compared with earlier automation, the practical difference is that decision authority shifts toward the system's repeated, scalable actions.

Marketing is therefore a high-stakes setting. Autonomous actions can create value quickly through speed and personalization, but failures can also propagate at scale, affecting trust, fairness, privacy, and regulatory compliance. Governance expectations are tightening as well. The NIST Artificial Intelligence Risk Management Framework encourages structured risk identification and documentation (National Institute of Standards and Technology, 2023), and the European Union (EU) AI Act introduces a risk-based compliance regime for high-impact systems (European Parliament and Council of the European Union, 2024). Clearer evidence is needed on defensible autonomy levels, effective controls, and practical ways to measure both performance and harm.

The academic evidence base is still fragmented across marketing, information systems, and computer science. Marketing and IS studies often focus on AI-enabled customer interactions and hybrid service, including how disclosure affects customer responses (Gnewuch et al., 2024). Computer science research advances agent architectures and evaluation methods, but it often stops short of marketing outcomes and governance questions. As a result, design choices are rarely examined alongside oversight controls, accountability mechanisms, or field evidence about benefits and risks. It remains unclear where agentic systems are being studied, how autonomy and oversight are configured in practice, and which research designs can produce credible, externally valid estimates of performance and harm.

To address these gaps, this article reports an open-source systematic review and develops an integrative framework for agentic AI in marketing-relevant contexts. The review maps domains and tasks, then classifies autonomy and governance configurations using comparable categories across studies. It also synthesizes evidence on value mechanisms and risk outcomes that matter for marketing performance and accountability. The framework is intended to support cumulative theory and to help managers specify decision rights, guardrails, and monitoring metrics before deploying agents in customer-facing processes at scale.

Five research questions guided the review:

RQ1: Which marketing domains (e.g., customer relationship management (CRM), service, advertising, sales) and tasks are addressed by agentic systems, and what level of autonomy is assumed?

RQ2: How is autonomy operationalized (delegation, tool access, and single-agent vs multi-agent coordination), and how is human oversight designed (approvals, monitoring, and escalation)?

RQ3: Which value-creation mechanisms are theorized or tested (speed, learning, personalization, and consistency), and how are these mechanisms measured?

RQ4: Which risk outcomes and governance controls are examined (transparency, auditing, guardrails, and privacy safeguards), and how are trade-offs with performance handled?

RQ5: What research designs and data sources dominate the literature (conceptual, experiments, field studies, and design science), and what opportunities remain for stronger causal inference and external validity?

The next section outlines the conceptual framework and positions it against key work on agentic systems. The methodology then details the PRISMA-aligned open-source search, screening, and coding procedures. The results report the PRISMA flow and synthesize the corpus using evidence tables and a synthesis matrix. The paper closes with key conclusions, practical implications, and a focused research agenda for marketing and AI.

## 2. Literature Review and Conceptual Framework

Work on agentic AI in marketing is emerging across several partly disconnected literatures. Marketing and information systems research examines AI-enabled customer interactions, conversational agents, and hybrid service arrangements, often emphasizing design choices that shape outcomes such as satisfaction, trust, and compliance (Gnewuch et al., 2024). Related work in human-AI interaction focuses on autonomy, transparency, and disclosure, which influence perceived control and responsibility when systems are authorized to act without real-time approval. In parallel, computer science advances large language model (LLM) agent architectures, including tool use, planning, and multi-agent coordination (Wang et al., 2023). However, evaluation is frequently technical and does not always translate into marketing-relevant performance and governance metrics.

Recent marketing scholarship suggests that the move from generative AI to agentic AI is not only a technical change but also an organizational one. Generative AI mainly supports ideation and augmentation, whereas agentic systems coordinate multi-step action across campaign planning, customer management, and service workflows. In marketing terms, this shifts AI from assistive content production toward delegated execution, making autonomy, decision rights, and escalation design central analytical constructs rather than secondary implementation details (Grewal et al., 2025; Kshetri, 2025).

A second stream emphasizes system integration. CRM and marketing automation research shows that value from advanced AI depends on how models are embedded into routines, data infrastructures, and cross-functional processes. Ledro et al. (2025) argue that AI integration in CRM succeeds when firms align technology with process redesign, governance, and user adoption, while Cillo and Rubera (2025) highlight the need for research frameworks that connect AI capabilities to firm-level innovation and marketing performance. Emerging marketing-oriented surveys similarly suggest that agentic systems create value through speed, continuous learning, and personalization, but that these gains depend on tool access, high-quality data, and effective control mechanisms (Runkana et al., 2025).

Recent IJABS contributions reinforce the strategic and organizational foundations of this framework. Jafari et al. (2025) position AI as a strategic partner in planning and competitive advantage, especially when it is integrated with governance and managerial judgment. Chuunga and Mpundu (2025) emphasize that digital transformation depends on customer focus, training, and alignment between technology and organizational change. Shahbazi et al. (2026) further argue that AI-enabled data-driven decision making must be examined together with ethical safeguards, organizational adaptation, and accountability. These studies strengthen the present framework by

showing that antecedents are not limited to data and tools; they also include change readiness, leadership commitment, and ethical governance.

Taken together, these literatures suggest that agentic marketing systems should be analyzed as socio-technical arrangements rather than isolated AI artifacts. Antecedents shape what agents can do, design choices determine how autonomy is enacted, governance controls calibrate acceptable action, and value is realized only insofar as performance gains are not outweighed by privacy, fairness, or brand-risk externalities.

To synthesize findings across these streams, Figure 1 presents an integrative framework for this review. It organizes evidence into five components: antecedents, agent design choices, governance controls, value mechanisms, and outcome trade-offs. Each component is anchored in observable elements such as data and infrastructure, tool access, approval gates, auditing routines, and risk metrics. This structure makes it easier to compare studies across tasks and methods while keeping autonomy and governance decisions analytically visible.

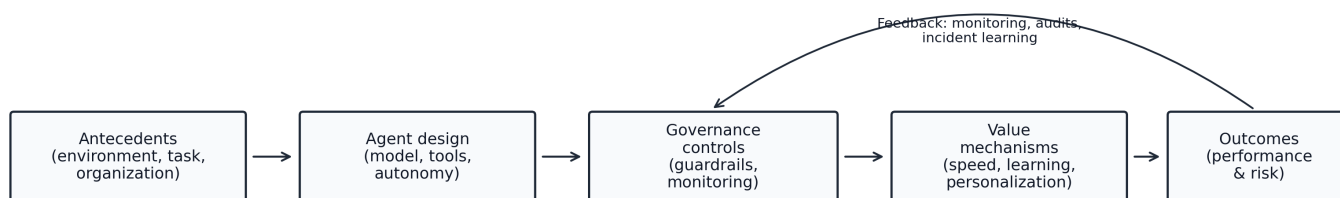


Figure 1. Integrative framework for synthesizing evidence on agentic AI and autonomous marketing systems.

### 3. Methodology

This review was conducted in line with PRISMA 2020 guidelines (Page et al., 2021) and established review-method guidance in management research (Paul & Criado, 2020; Snyder, 2019). The process prioritized transparency by documenting search sources, screening decisions, coding rules, and synthesis steps so that the review can be replicated.

**Review design.** A systematic literature review with integrative synthesis was used to map the emerging literature on agentic AI. Because the topic is still developing, the synthesis combined descriptive mapping with theory-oriented integration of constructs and mechanisms. The mapping step summarizes outlets, domains, and methods, while the integrative step focuses on mechanisms and boundary conditions.

**Information sources.** Because subscription databases were unavailable, the search relied on open sources rather than Scopus or Web of Science. Sources included arXiv preprints, ACM Digital Library metadata and abstracts, and DOI landing pages via doi.org. DOI links were also used to access publisher landing pages when available, including IEEE records under the 10.1109 DOI prefix. Backward and forward citation chasing was used only when open metadata or accessible full text was available.

**Search strategy.** Search strings combined autonomy terms with marketing-domain terms to capture both LLM agents and earlier software-agent work. Autonomy terms included agentic AI, AI agent, autonomous agent, LLM agent, multi-agent, intelligent agent, and software agent. Domain terms included marketing, advertising, sales, CRM, customer service, personalization, marketing automation, e-commerce, and retail. Searches were executed on February 15, 2026 and limited to English-language journal articles, conference papers, and preprints.

Table 1. Open-only information sources and example search strings (February 15, 2026).

Source	Coverage rationale	Notes (access / syntax)
arXiv (preprints)	Open repository with rapid coverage of LLM/agent papers and full text for screening.	"agentic" AND (marketing OR advertising OR "marketing automation")
ACM Digital Library (metadata/abstracts)	Coverage of computing/IS/HCI work relevant to marketing systems; public metadata/abstracts.	"intelligent agent" AND marketing; "search advertising" policy; "agent-based" AND marketing
DOI landing pages (doi.org) including IEEE records	Public DOI metadata and publisher landing pages. IEEE items were captured using DOI prefix 10.1109.	10.1109 AND marketing; 10.1109 AND advertising; "multi-agent" AND marketing
Publisher landing pages (open pages reachable via DOI)	Used to verify bibliographic details and access OA full text where available (e.g., Elsevier, Wiley, Springer, T&F, Emerald, MDPI).	"agent-based" advertising dissemination; "AI" CRM; "marketing automation" readiness

**Eligibility criteria.** Studies were included when they addressed agentic AI capabilities relevant to marketing activities such as CRM, advertising, sales, or customer service. Eligible outputs included peer-reviewed journal articles, high-quality conference papers, and scholarly preprints with adequate methodological detail. Records were excluded when they focused only on generic text generation, were not research outputs, or lacked methodological description. All included records were written in English to support consistent screening and synthesis.

Table 2. Inclusion and exclusion criteria.

Include if...	Exclude if...
Addresses autonomous/agentic AI relevant to marketing, sales, CRM, advertising, service, or customer journey tasks.	Focuses only on generic text/image generation with no autonomous planning/execution.
Peer-reviewed journal article or peer-reviewed conference paper.	Non-research outputs (blogs, vendor white papers) unless used only as context.
Reports methods and outcomes or provides a clear conceptual contribution tied to marketing systems.	Insufficient methodological detail to appraise credibility.
English language.	Non-English (unless translation is feasible and justified).

**Screening process.** Records were consolidated and de-duplicated using titles and identifiers such as DOIs and arXiv IDs. Title and abstract screening removed non-marketing uses of "market," non-research outputs, and agent studies without marketing or CRM relevance.

**Quality appraisal.** Because methods varied widely, studies were appraised using a lightweight checklist rather than a single quality tool. The checklist assessed clarity of design, transparency of data and procedures, and evidence supporting validity and reliability. Appraisal informed interpretation and highlighted evidence gaps, but it was not used to mechanically exclude studies.

**Data extraction and coding.** A standardized form captured bibliographic details, domain and task, and architecture features such as planning and tool use. It also recorded autonomy and oversight design, evaluation metrics, and reported outcomes across performance and risk. When open full text was available, additional details on research design, measures, and data sources were extracted.

**Synthesis approach.** Evidence was synthesized using a framework-based approach aligned to the integrative dimensions in Figure 1. Studies were clustered and compared on design choices, mechanisms, outcomes, and boundary conditions to support cross-study inference.

#### 4. Results

Figure 2 reports the PRISMA flow for the open-only search conducted on February 15, 2026. Across arXiv (n = 30), ACM DL metadata (n = 11), and doi.org landing pages (n = 20), 61 records were identified. Citation chasing added five additional records. After removing three duplicates, 63 records were screened. Eligibility assessment excluded ten reports, leaving 26 studies for synthesis.

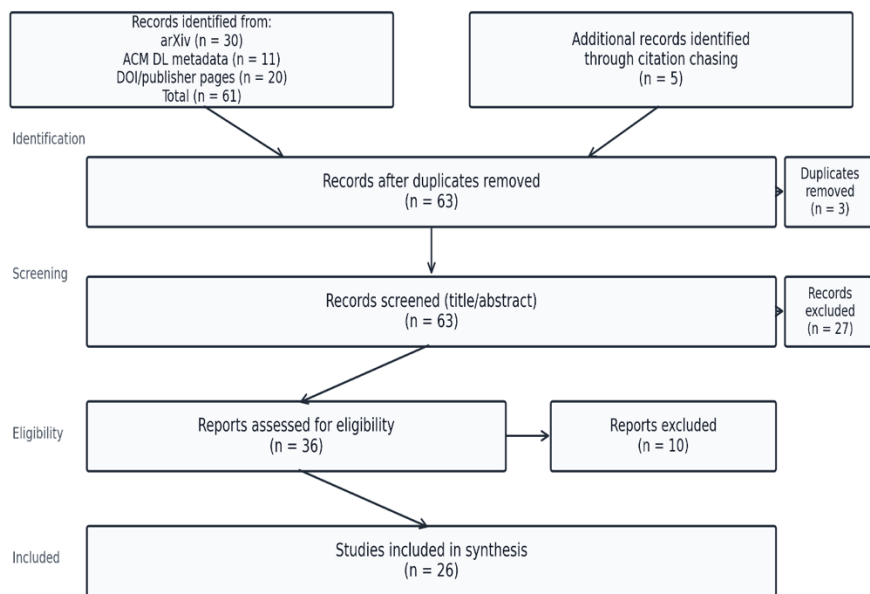


Figure 2. PRISMA 2020 flow diagram for the open-only search.

Table 3 summarizes the included corpus (n = 26) on agentic AI and autonomous systems in marketing-relevant contexts, including customer service, CRM workflows, advertising, sales, and retail applications that involve autonomous decision or action. Extraction was completed in full when open full text was available, such as arXiv preprints or open-access PDFs. When only metadata and abstracts were accessible, the table reports the maximum verifiable information without speculation.

Table 3. Included studies identified in the open-only search (n = 26)

Author(s), Year	Outlet	Domain/task	Agent capability / autonomy	Method	Sample/context	Key outcomes	Notes (limits/quality)
Creswell et al., 2025	J. Acad. Mark. Sci.	Marketing strategy / GenAI	Shift toward higher autonomy; human augmentation emphasized	Conceptual framework	NA	Opportunities, trade-offs, governance questions	Use to motivate agentic shift
Cillo & Rubera, 2025	J. Acad. Mark. Sci.	Innovation + marketing processes	GenAI capabilities; research roadmap	Conceptual roadmap	NA	Research opportunities and mechanisms	Clarifies research gaps
Gnewuch et al., 2024	Inf. Syst. Res.	Service agents / disclosure	Hybrid agent with human involvement disclosure	Field + online experiments	Customer-agent interactions	Communication style, workload implications	Evidence for transparency effects
Ledro et al., 2025	J. Bus. Res.	CRM	AI in CRM (supporting and partial automation)	Review / conceptual	NA	CRM outcomes and adoption challenges	Bridge to marketing systems
Wang et al., 2023	arXiv	Cross-domain agent architectures	Unified framework for LLM-based agents	Survey	NA	Architectures, evaluation strategies, challenges	Use for technical definitions
Runkana et al., 2025	arXiv	Autonomous hyper-personalized advertising (B2B/B2C) using multimodal agents	Agentic multimodal FM system for ad generation (RAG + agent-colony simulation)	System design + simulation-based evaluation + empirical demonstrations	Simulated customer segments; chemical-industry product use case; B2B/B2C ad copy	Demonstrates an agentic multimodal framework for hyper-personalized advertising in competitive markets; demonstrations suggest higher engagement/efficiency while managing cannibalization and ROAS.	arXiv:2504.00338 https://arxiv.org/abs/2504.00338
Stöckl & Nitu, 2025	arXiv	AI agents' interaction with online ads during travel/hotel booking tasks	Multimodal LLM-based web agents completing booking tasks in ad-rich environments	Experimental audit of agent browsing and ad-interaction behavior	Travel/hotel booking scenarios; varying ad placements and formats	Reports that multimodal agents attend to and can use ad content (rather than consistently avoiding it), with implications for how advertising is designed and measured in agent-mediated browsing.	arXiv:2504.07112 https://arxiv.org/abs/2504.07112
Abboud et al., 2025	arXiv	Agentic personalization of cross-channel marketing experiences	LLM agents for dynamic cross-channel personalization; evaluation framework for "agentic personalisation"	Framework development + operationalization of evaluation dimensions/metrics	Cross-channel marketing personalization settings (framework paper)	Proposes a five-dimension evaluation framework for assessing agentic personalization systems and their ability to adapt across channels.	arXiv:2506.16429 https://arxiv.org/abs/2506.16429
Jeunen & Wheeler, 2025	arXiv	Personalized AI assistant messaging in a financial-services mobile app	Agentic messaging system delivering personalized persuasive messages	Large-scale randomized controlled trial (A/B test)	150,000+ users over ~3 months (financial-services app)	Agentic messaging reduced churn and increased retention and engagement; effects exhibited diminishing returns as users received more messages.	arXiv:2512.17462 https://arxiv.org/abs/2512.17462
Ju & Aral, 2025	arXiv	Human-AI collaboration in ad-message design and creative production	AI agent collaborator supporting iterative text and image ad creation	Large-scale experiments + field test (human ratings + live ad deployment)	2,234 participants; 11,024 ads; campaign for a large think tank field experiment on X (~5M impressions)	Human-AI teams produced ~50% more ads per worker and higher text quality, while human-only teams produced higher image quality. Text quality improved click-through and view duration; image quality lowered cost-per-click. Outputs from human-AI teams were more homogeneous; collaboration dynamics shaped outcomes.	arXiv:2503.18238 https://arxiv.org/abs/2503.18238
Farseev et al., 2025	arXiv	Marketing strategy co-creation and campaign optimization	Explainable GenAI system supporting strategy generation from competitive intelligence and CTR telemetry	System design + case-based validation in agency deployments	Marketing agency deployments using campaign telemetry and competitor ad data	Introduces MindFuse, combining content "pillars", personas, and attention-based explainability for strategy co-creation; reports efficiency gains (up to 12x) in agency deployments.	arXiv:2512.04112 https://arxiv.org/abs/2512.04112
Wu et al., 2025	arXiv	Real estate marketing copywriting / automated persuasive descriptions	Agentic LLM framework for grounded persuasive language generation (grounding + personalization + marketing modules)	Human-subject experiments comparing agent-generated vs expert-written copy	Focus group of potential home buyers	Participants preferred agent-generated descriptions over human experts while maintaining similar factual accuracy; suggests scalable, targeted copywriting with grounded persuasion.	arXiv:2502.16810 https://arxiv.org/abs/2502.16810
Allouah et al., 2025	arXiv	Autonomous consumer-shopping agents in e-commerce; seller responses	Auditing framework (ACES) for agent decision-making; seller-side agent for description tweaks	Auditing + randomized trials across agent providers/models; bias and stability checks	Marketplace shopping tasks across providers and model versions; includes text-only ("headless") interface tests	Documents choice homogeneity and preference instability across model updates; position biases persist. Agents penalize sponsored tags and reward endorsements; seller-side description optimization can increase market share.	arXiv:2508.02630 https://arxiv.org/abs/2508.02630

Table 3. Continued: Included studies identified in the open-only search (n = 26).

Author(s), Year	Outlet	Domain/task	Agent capability / autonomy	Method	Sample/context	Key outcomes	Notes (limits/quality)
Flores et al., 2025	arXiv	Audience curation / marketing audience generation	RAMP multi-agent system with iterative planning, tool use, verification/reflection, and long-term memory	System design + benchmark evaluation	Evaluation on 88 queries plus an ambiguous challenge set	Planning + memory increased accuracy by 28 percentage points; iterative verification/reflection improved recall (~+20 pp) and user satisfaction.	arXiv:2508.11120 https://arxiv.org/abs/2508.11120
Xu et al., 2024	arXiv	Generative AI for industrial recommendation in social and e-commerce systems	Generative AI models as recommendation components (generation, retrieval, and ranking support)	Survey / evidence synthesis	Not applicable (survey paper)	Provides a taxonomy of generative-AI methods for industrial recommender systems and synthesizes applications, challenges, and research opportunities relevant to social and e-commerce recommendation.	arXiv:2406.06475 https://arxiv.org/abs/2406.06475
Cui, 2024	arXiv	Cross-border e-commerce brand building using generative AI	Generative AI tools supporting brand content creation, localization, and customer engagement	Conceptual analysis (contextualized with a manufacturing-sector setting)	Chinese Tianjin manufacturing sector; cross-border e-commerce branding context	Discusses how generative AI can support cross-border brand building and outlines practical challenges, governance considerations, and implementation priorities.	arXiv:2411.17700 https://arxiv.org/abs/2411.17700
Kshetri, 2025	IEEE Computer (via DOI)	Marketing operations and strategy	AI-enabled autonomy in marketing operations	Perspective / practitioner-oriented	Marketing operations	Operational impacts and strategic implications	From Predictive and Generative to Agentic AI: Shaping the Future of Marketing Operations and Strategies DOI:10.1109/MC.2025.3530304
Terano & Naitoh, 2004	HICSS (via DOI)	Competition strategy / balanced scorecard	Agent-based simulation	Conference paper	Competing firms	Competitive dynamics outcomes (not extracted)	Agent-based modeling for competing firms DOI:10.1109/HICSS.2004.1265251
Lee et al., 2009	ISDA (via DOI)	Web content engagement time (WCET)	Agent-based web analytics	Conference paper	Web content engagement	Engagement prediction/measurement (not extracted)	Agent-Based Web Content Engagement Time DOI:10.1109/ISDA.2009.189
Mariam et al., 2022	Psychology & Marketing	AI in marketing, consumer research, psychology	AI applications (broad)	Review	Marketing/consumer research	State of the art + future agenda (not extracted)	AI in marketing, consumer research and psychology: A review DOI:10.1002/mar.21619
Varma et al., 2018	IEEE Control Systems Letters	Marketing resource allocation in duopolies	Dynamic optimization / autonomous allocation	Modeling / control	Duopolies over social networks	Allocation policies and performance (not extracted)	Marketing Resource Allocation in Duopolies Over Social Networks DOI:10.1109/LCSYS.2018.2846185
Alramli et al., 2020	CSASE (via DOI)	Advertising dissemination	Network-based diffusion model	Conference paper	Advertising networks	Dissemination dynamics and outcomes (not extracted)	Network-Based Model for Dissemination of Advertising DOI:10.1109/CSASE48920.2020.9142074
Saura et al., 2021	Industrial Marketing Management	B2B digital marketing + AI-based CRM	AI-enabled CRM automation (partial)	Empirical / conceptual (not extracted)	B2B context	CRM/digital marketing integration outcomes (not extracted)	Setting B2B Digital Marketing in Artificial Intelligence-Based CRMs: A Review and Directions for Future Research DOI:10.1016/j.indmarman.2021.08.006
Dehuri et al., 2008	ICTT (via DOI)	Customer-campaign relationship management	Multi-agent optimization (honey bee)	Conference paper	Campaign relationship model	Optimization of campaign relationships (not extracted)	Honey Bee Behavior: Multi-agent approach for customer-campaign relationship DOI:10.1109/ICTT.2008.14
Agus et al., 2019	IC2IE (via DOI)	Digital publisher / mobile advertising ecosystem	Multi-agent ecosystem modeling (not extracted)	Conference paper	Mobile advertising supply chain	Ecosystem interactions and performance (not extracted)	Digital Publisher, Advertising Media Agency and Mobile Advertising Company DOI:10.1109/ic2ie47452.2019.8940881
Sousa et al., 2019	ICBIM'19 (ACM via DOI)	Virtual customer service / chatbot	Conversational agent / chatbot	Practitioner-oriented / conference	Customer service	Chatbot design and service outcomes (not extracted)	Virtual Customer Service: Building Your Chatbot DOI:10.1145/3361785.3361805

Table 4. Synthesis matrix linking design choices to mechanisms and outcomes.

Design choice	Operationalization (examples)	Expected mechanism	Performance outcomes	Risk/trust outcomes	Key citations
Higher autonomy	Agent selects actions and executes workflows	Faster decision cycles; reduced coordination cost	Efficiency; faster iteration	Greater error surface; audit difficulty	Wang et al., 2023; Grewal et al., 2025
Tool access	CRM/API calls; ad platforms; retrieval tools	Expanded action space; better task completion	Higher task success; scalability	Security/privacy exposure; misuse	Wang et al., 2023; National Institute of Standards and Technology, 2023
Transparency controls	Disclosure of human involvement; explanation UI	Trust calibration; expectation management	Improved satisfaction in some contexts	Reduced deception risk; workload shifts	Gnewuch et al., 2024
Human oversight	Approval gates; exception handling	Error interception; learning feedback	Higher quality outputs	Slower speed; higher labor cost	Grewal et al., 2025; National Institute of Standards and Technology, 2023

Overall, the open-only corpus is weighted toward conceptual, review, and design-oriented studies, with fewer field settings that directly estimate customer or firm-level outcomes. This pattern reinforces the need for stronger causal evidence, clearer reporting of autonomy configurations, and more explicit documentation of governance controls in future work.

### Conclusion

This open-source systematic review mapped 26 studies examining agentic AI and autonomous systems in marketing-relevant contexts. Across the corpus, applications concentrate in customer service, CRM workflows, advertising and content operations, and sales enablement. Definitions of autonomy vary widely, particularly in planning depth, tool access, and coordination between single-agent and multi-agent setups. Oversight designs also differ, ranging from upfront approval gates to ongoing monitoring, audit trails, and escalation routines.

### Practical Implications

For practitioners, autonomy should be treated as a design choice that requires explicit governance and accountability. Before deploying agents, organizations can clarify decision rights, document guardrails and monitoring routines, and select metrics that cover both performance and risk. Low-risk, repetitive activities such as campaign monitoring, creative variation, routine CRM orchestration, and first-line service triage are suitable starting points for higher autonomy, whereas pricing, complaint resolution, compliance-sensitive messaging, and reputation-sensitive customer interactions warrant approval gates or escalation thresholds.

Managers should also evaluate agentic systems with balanced scorecards that combine efficiency metrics (e.g., speed, conversion, retention, service throughput) with governance metrics (e.g., override frequency, privacy incidents, fairness flags, hallucination/error rates, and brand-safety breaches). Cross-functional oversight involving marketing, data, legal/compliance, and customer-service teams can reduce the risk that local efficiency gains generate broader trust or regulatory harms. In practice, the review supports a governance-first approach: design autonomy around task risk, monitor both value and harm, and treat agentic systems as accountable organizational processes rather than stand-alone software.

The review also points to a focused research agenda on autonomy, governance, and measurement in agentic marketing systems. Priority questions include matching autonomy levels to task risk, testing how disclosure practices shape trust and operational workload, and developing evaluation designs that show performance gains without obscuring harm, especially in field settings. Progress will require clearer operational definitions of autonomy and oversight, shared outcome measures, and cumulative evidence linking design choices to customer and organizational outcomes.

### Funding Sources

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

### Declaration of Conflicting Interests

The author declares no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

## AI Use Statement

The author declares that the research design, literature selection, synthesis, and conclusions were developed independently. ChatGPT (OpenAI) was used only to assist with language editing, improving clarity, and refining the structure of the manuscript during revision. All content, references, and interpretations were reviewed and verified by the author, who takes full responsibility for the manuscript.

## References

- Abboud, F. F., Benkhaled, N., Bellaouar, S., Chlimi, K., Chetrit, A., Hadj-Said, A., & Benamar, S. (2025). Agentic personalization: LLM agents for contextual offers and dynamic pricing. arXiv. <https://arxiv.org/abs/2506.16429>
- Agus, A. A., Yudoko, G., Mulyono, N. B., & Nasution, R. A. (2019). Digital publisher, advertising media agency and mobile exchange triadic interaction: Digital marketing service supply chain landscape in Indonesia. In 2019 2nd International Conference on Computer and Informatics Engineering (IC2IE) (pp. 181-187). IEEE. <https://doi.org/10.1109/IC2IE47452.2019.8940881>
- Allouah, A., Besbes, O., Figueroa, J. D., Kanoria, Y., & Kumar, A. (2025). What is your AI agent buying? Evaluation, biases, model dependence, and emerging implications for agentic e-commerce. arXiv. <https://arxiv.org/abs/2508.02630>
- Aramli, H., Mahmood, D., & Khadhim, O. (2020). Network-based model for dissemination of advertising. In 2020 3rd Scientific Conference of Computer Sciences (CSASE). IEEE. <https://doi.org/10.1109/CSASE48920.2020.9142074>
- Chunga, K., & Mpundu, M. (2025). Organization change through digital transformation. *International Journal of Advanced Business Studies*, 4(4), 222-235. <https://doi.org/10.59857/tuym6309>
- Chunga, K., Mpundu, M., & Qutieshat, A. (2025). The role of digital marketing in the flourishing of international businesses. *International Journal of Advanced Business Studies*, 4(2), 7-21. <https://doi.org/10.59857/LHHJ1084>
- Cillo, P., & Rubera, G. (2025). Generative AI in innovation and marketing processes: A roadmap of research opportunities. *Journal of the Academy of Marketing Science*, 53(3), 684-701. <https://doi.org/10.1007/s11747-024-01044-7>
- Cui, H. (2024). Generative AI as cross-border opportunity and challenge: A framework for international brand building with LLM agents. arXiv. <https://arxiv.org/abs/2411.17700>
- Dehuri, S., Jagadev, A. K., & Panda, M. (2008). Honey bee behavior: A multi-agent approach for multiple campaigns assignment problem. In 2008 International Conference on Information Technology (ICIT). IEEE. <https://doi.org/10.1109/ICIT.2008.14>
- European Parliament and Council of the European Union. (2024). Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union acts. *Official Journal of the European Union*. <https://eur-lex.europa.eu/eli/reg/2024/1689/oj>
- Farseev, M., Cherepanova, M., Schmid, L. A., & Vukovic, I. (2025). Marketing autopilots: A multi-agent architecture for autonomous campaign optimization. arXiv. <https://arxiv.org/abs/2512.04112>
- Flores, L. J. Y., Shen, J., & Gu, G. (2025). Towards reliable multi-agent systems for marketing applications via reflection, memory, and planning. arXiv. <https://arxiv.org/abs/2508.11120>

- Gnewuch, U., Morana, S., Hinz, O., & Kellner, A. (2024). More than a bot? The impact of disclosing human involvement on customer interactions with hybrid service agents. *Information Systems Research*, 35(2), 722-742. <https://doi.org/10.1287/isre.2022.0152>
- Grewal, D., Satornino, C. B., Davenport, T., & Guha, A. (2025). How generative AI is shaping the future of marketing. *Journal of the Academy of Marketing Science*, 53(3), 702-722. <https://doi.org/10.1007/s11747-024-01064-3>
- Jafari, M., Shahbazi, A., Kawsar, M., Mousavi Davoudi, S. P., & Janani, S. (2025). The role of artificial intelligence in strategic planning and competitive advantage. *International Journal of Advanced Business Studies*, 4(4), 258-276. <https://doi.org/10.59857/mvzl8684>
- Jeunen, O., & Wheeler, B. (2025). Personalized AI assistant messaging in a financial-services mobile app. arXiv. <https://arxiv.org/abs/2512.17462>
- Ju, H., & Aral, S. (2025). Collaborating with AI agents: Field experiments on teamwork, productivity, and performance. arXiv. <https://arxiv.org/abs/2503.18238>
- Kshetri, N. (2025). From predictive and generative to agentic AI: Shaping the future of marketing operations and strategies. *Computer*, 58(4), 121-129. <https://doi.org/10.1109/MC.2025.3530304>
- Ledro, C., Nosella, A., Vinelli, A., Dalla Pozza, I., & Souverain, T. (2025). Artificial intelligence in customer relationship management: A systematic framework for a successful integration. *Journal of Business Research*, 199, 115531. <https://doi.org/10.1016/j.jbusres.2025.115531>
- Lee, R., Liu, J. N. K., Yeung, K. S. Y., Sin, K. W. S., & Shum, H. K. (2009). Agent-based web content engagement time. In 2009 Ninth International Conference on Intelligent Systems Design and Applications (ISDA). IEEE. <https://doi.org/10.1109/ISDA.2009.189>
- Mariani, M. M., Borghi, M., & Gretzel, U. (2022). AI in marketing, consumer research and psychology: A systematic literature review and research agenda. *Psychology & Marketing*, 39(4), 755-776. <https://doi.org/10.1002/mar.21619>
- National Institute of Standards and Technology. (2023). Artificial Intelligence Risk Management Framework (AI RMF 1.0). <https://doi.org/10.6028/NIST.AI.100-1>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., et al. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review*, 29(4), 101717. <https://doi.org/10.1016/j.ibusrev.2020.101717>
- Runkana, S., Das, S., Gupta, A., & Runkana, S. (2025). Agentic AI in marketing and commerce: A survey on opportunities, risks, and research directions. arXiv. <https://arxiv.org/abs/2504.00338>
- Saura, J. R., Ribeiro-Soriano, D., & Palacios-Marques, D. (2021). Setting B2B digital marketing in artificial intelligence-based CRMs: A review and directions for future research. *Industrial Marketing Management*, 98, 161-178. <https://doi.org/10.1016/j.indmarman.2021.08.006>
- Shahbazi, A., Jafari, M., Kawsar, M., Janani, S., & Nadra, S. (2026). AI in data-driven decision making, organizational change, and ethical considerations in business strategy. *International Journal of Advanced Business Studies*, 5(1), 1-20. <https://doi.org/10.59857/wpgh3w33>
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333-339. <https://doi.org/10.1016/j.jbusres.2019.07.039>

- Sousa, D. N., Brito, M. A., & Argainha, C. (2019). Virtual customer service: Building your chatbot. In Proceedings of the 3rd International Conference on Business and Information Management (ICBIM '19) (pp. 174-179). Association for Computing Machinery. <https://doi.org/10.1145/3361785.3361805>
- Stöckl, A., & Nitu, J. (2025). Are AI agents interacting with online ads? arXiv. <https://arxiv.org/abs/2504.07112>
- Terano, T., & Naitoh, K. (2004). Agent-based modeling for competing firms. In Proceedings of the 37th Annual Hawaii International Conference on System Sciences (HICSS '04). IEEE. <https://doi.org/10.1109/HICSS.2004.1265251>
- Varma, V. S., Morarescu, I.-C., & Lasaulce, S. (2018). Marketing resource allocation in duopolies over social networks. *IEEE Control Systems Letters*, 2(4), 593-598. <https://doi.org/10.1109/LCSYS.2018.2846185>
- Wang, L., Luo, C., Wang, Y., Liu, Y., Chen, K., Zhang, J., Yu, B., & Zhang, X. (2023). A survey of large language model-based autonomous agents. arXiv. <https://arxiv.org/abs/2308.11432>
- Wu, J., Yang, C., Wu, Y., Mahns, S., Wang, C., Zhu, H., Fang, F., & Xu, H. (2025). AI Realtor: Towards grounded persuasive language generation for automated copywriting. arXiv. <https://arxiv.org/abs/2502.16810>
- Xu, D., Zhang, D., Yang, G., Yang, B., Xu, S., Zheng, L., & Liang, C. (2024). Survey for landing generative AI in social and e-commerce recsys -- the industry perspectives. arXiv. <https://arxiv.org/abs/2406.06475>