Everest Group®

January 2025

Agentic AI: Revolutionizing the Future of Automation

Contents

03 Introduction

04 Understanding agentic AI

07 Evolution of automation and the emergence of agentic automation

10 Agentic automation’s expected impact

12 Putting agentic automation into action

18 Agentic automation’s implications for enterprises

22 Conclusion

Copyright © 2025, Everest Global, Inc. All rights reserved.

Introduction

In recent years, enterprises have adapted to rapidly evolving economic, environmental, and business scenarios, focusing more intensely on resilience, agility, and cost optimization. Organizations prioritize digital transformation and automation to meet these objectives. Historically, automation has been a key efficiency enabler, streamlining repetitive processes, reducing costs, and minimizing human errors. In the recent past, AI has expanded automation's capabilities and broadened its applications across industries and functions.

Today, as enterprises face more complex and rapidly changing environments, traditional automation solutions have begun to reveal their limitations. These limitations include a lack of creativity or judgment, reliance on structured data, limited decision-making capabilities, lack of autonomy, and the inability to achieve end-to-end automation. Agentic AI is poised to transform this landscape.

Agentic AI refers to autonomous AI agents that execute end-to-end workflows. These tasks can be initiated in various ways, from input-based (natural language, text, image, and speech) to catalyst-based (user-initiated or agent-initiated). Agentic AI promises a transformative impact in its most advanced form, offering superior decision-making capabilities, exceptional intelligence, adaptability to dynamic situations, and autonomy. This next phase of AI tackles complex, context-sensitive tasks, redefining what enterprises can automate and how they navigate unforeseen challenges in an increasingly volatile world. Instead of replacing current automation technologies, such as RPA, IDP, and process orchestration, agentic AI augments them to unlock opportunities and power a new frontier: agentic automation.

In this Viewpoint, we:

- Understand agentic AI
- Explore the evolution of automation and the emergence of agentic automation
- Analyze expected agentic automation's impact on key industries and business functions
- Assess key agentic automation use cases with the potential to scale
- Evaluate agentic automation implications for enterprises
- Examine the future outlook

This report offers enterprises valuable insights into agentic AI and agentic automation and how they leverage these to help achieve their business objectives more effectively.

Understanding agentic AI

Defining agentic AI

Agentic AI is an evolved form of AI that creates autonomous agents with exceptional autonomy, decision-making abilities, intelligence, and adaptability. These agents can execute workflow based on inputs in various formats, set goals, devise plans, and act to achieve their objectives. While generative AI assists at the task level, agentic AI surpasses it by autonomously understanding, deciding, executing workflows, and interacting with users in a human-like manner.

For example, while generative AI autonomously recommends detailed and easy-to-understand execution steps, agentic AI offers these recommendations and executes the actions independently.

Key agentic AI characteristics

Agentic AI comes with a set of defining features that enable more advanced and autonomous operations, setting it apart from existing technologies:

Level of autonomy

Agentic AI operates with high autonomy, making decisions and acting strategically with minimal or no human intervention. It assesses complex situations and chooses the best action based on preset goals or learned behavior. Moreover, it does not require specific triggers, as it can monitor and act at the optimal moment, freeing humans from watch-and-wait tasks.

Multiplicity / Multi-agent collaboration

The agentic system typically involves multiple agents that collaborate to fulfill tasks created in the workflow. These agents collaborate efficiently, either working in parallel or sequentially, depending on the requirements.

Reflection

The technology critiques its output and creates an iterative self-improvement process for more robust output. It evaluates its actions' effectiveness and adjusts future behavior based on successes or failures, improving over time.

Workflow optimization

The system analyzes and adjusts workflows in real time to enhance efficiency and effectiveness. It can dynamically reorganize workflows to minimize delays and maximize resource utilization.

Real-time adaptability

Agentic AI can adjust its strategies quickly as per changing circumstances and new information, making it more resilient and effective in dynamic situations.

These characteristics enable agentic AI to revolutionize business operations by driving greater efficiency, adaptability, and autonomy, positioning it as a cornerstone of the next generation of intelligent systems.

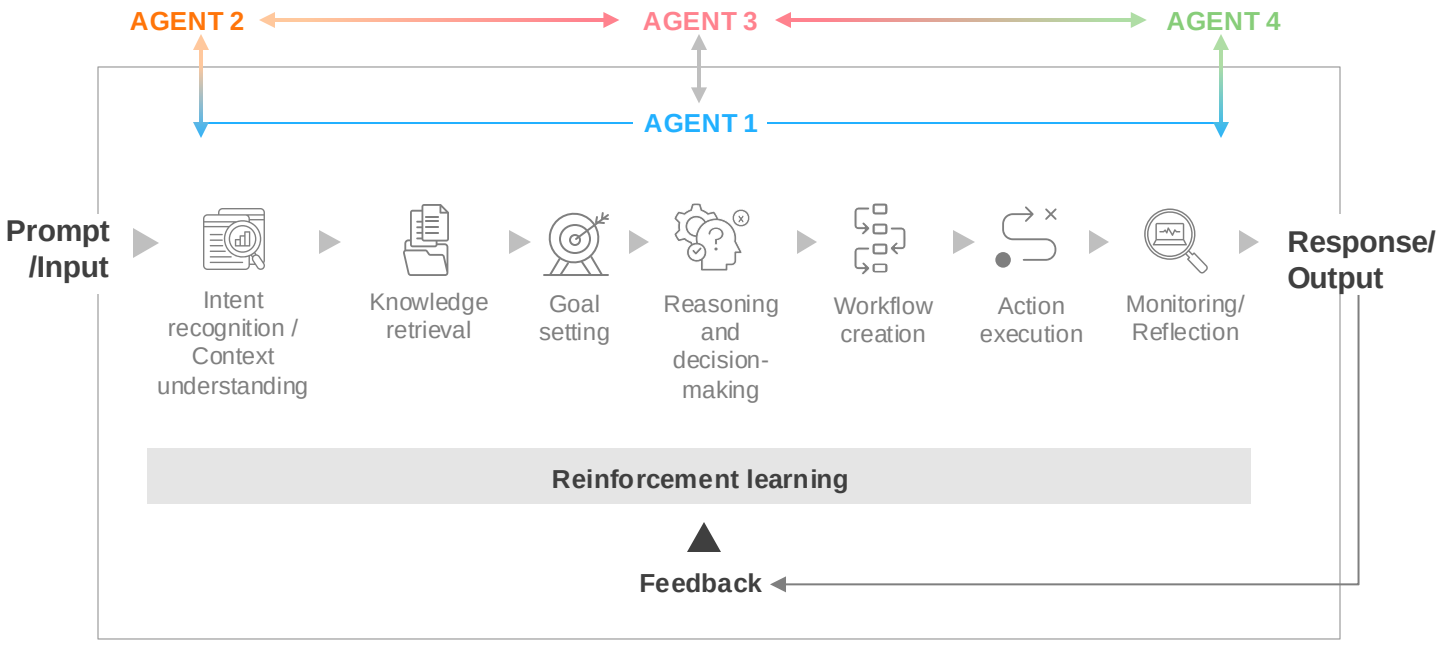
How does an agentic AI system work?

An agentic AI system follows a structured, multi-step process to execute different tasks in a workflow. It coordinates seamlessly with various platforms, tools, and other agents to accomplish these tasks. The system continuously monitors progress, adapts its strategy as required, and ensures tasks are completed efficiently and accurately.

Exhibit 1 highlights the key steps a multi-agent system undertakes.

Exhibit 1: A multi-agent system's working

Source: Everest Group (2025)



Below, we briefly describe each of the steps.

Receiving input and understanding context: The agent collects inputs in natural language, and through NLP, it further processes, converts, or interprets the intent. Several agents are multimodal, allowing them to accept inputs in various formats, such as text, speech, and images.

Knowledge retrieval: The system retrieves relevant information or knowledge from databases or previous experiences. It also accesses real-time data from various tools and data streams, offering more relevant insights.

Goal setting: Based on the intent and retrieved information, AI breaks complex intents into smaller, manageable goals to achieve the desired outcome. These goals act as a blueprint guiding AI in its operations.

Reasoning and decision-making: At this stage, AI leverages LLMs to analyze all the information (from knowledge retrieval, goals, and contextual data) to determine the best course of action. It may also leverage predefined rules or ML algorithms to make informed decisions. Additionally, the agent can dynamically manage cases it has not been specifically trained for, effectively handling exceptions and ensuring a secure problem-solving process.

Workflow creation: Based on the decisions made, the AI system designs a step-by-step workflow to fulfill the goals. This workflow outlines all the necessary actions, specifies dependencies, and assigns roles to different agents involved in the system if needed. The workflow involves performing tasks sequentially, in parallel, or a combination of both to achieve the objective.

Action execution: In this stage, agents prepare to execute the final output by performing defined actions to evaluate internally and identify potential areas for refinement.

Monitoring/Reflection: The system assesses the effectiveness of its actions, creating an iterative cycle of self-improvement. It measures how well actions align with set goals, and if any deviations or issues are detected, the system can return to the necessary step and repeat the process to ensure quality outcomes.

Response/Output: Once the refined actions satisfy the agent, it shares them with the user as the final response or outcome, potentially resulting in real-world actions with minimal to no human intervention. Such examples include sending emails, issuing purchase orders, transferring funds, granting or revoking system access, or performing any API-driven action.

Feedback: Once the outcome is delivered to the user, the agent actively seeks feedback to evaluate how well the result aligns with the user's expectations. This user informs the agent if it met the intended goals or if there were any discrepancies. The user’s feedback guides the agent’s learning process, helping it understand and adapt to the user’s needs.

Reinforcement learning: Based on the user’s feedback, if the result is unsatisfactory, the agent identifies the specific step that needs correction and re-executes it. The agent also stores this feedback in its database for future reference. Positive feedback is used to reinforce and strengthen successful decision pathways, while negative feedback helps the agent learn to avoid or modify ineffective actions in future tasks.

As outlined, an agentic system operates through a highly structured yet adaptive process to handle tasks of varying complexities.

Agentic AI represents the next frontier in AI, augmenting the current automation ecosystem to unlock new possibilities.

Evolution of automation and the emergence of agentic automation

The evolution journey

Automation's evolution began with structured rule-based technologies, such as Robotic Process Automation (RPA) and Robotic Desktop Automation (RDA), which automated repetitive tasks and improved data entry and transaction processing efficiencies. While these systems excelled in handling predictable workflows, they struggled with complex, unstructured data and decision-making processes. Introduction of traditional AI techniques, such as ML and NLP, led to the emergence of Intelligent Automation (IA). It enabled machines to analyze data, recognize patterns, and interpret human language, allowing automation of more cognitive workflows, such as predictive analytics and customer interactions through chatbots. IA, when integrated with generative AI, offers diverse benefits. It enhances user experiences through personalization, improves customer engagement with human-like interactions, and drives innovation with creative outputs.

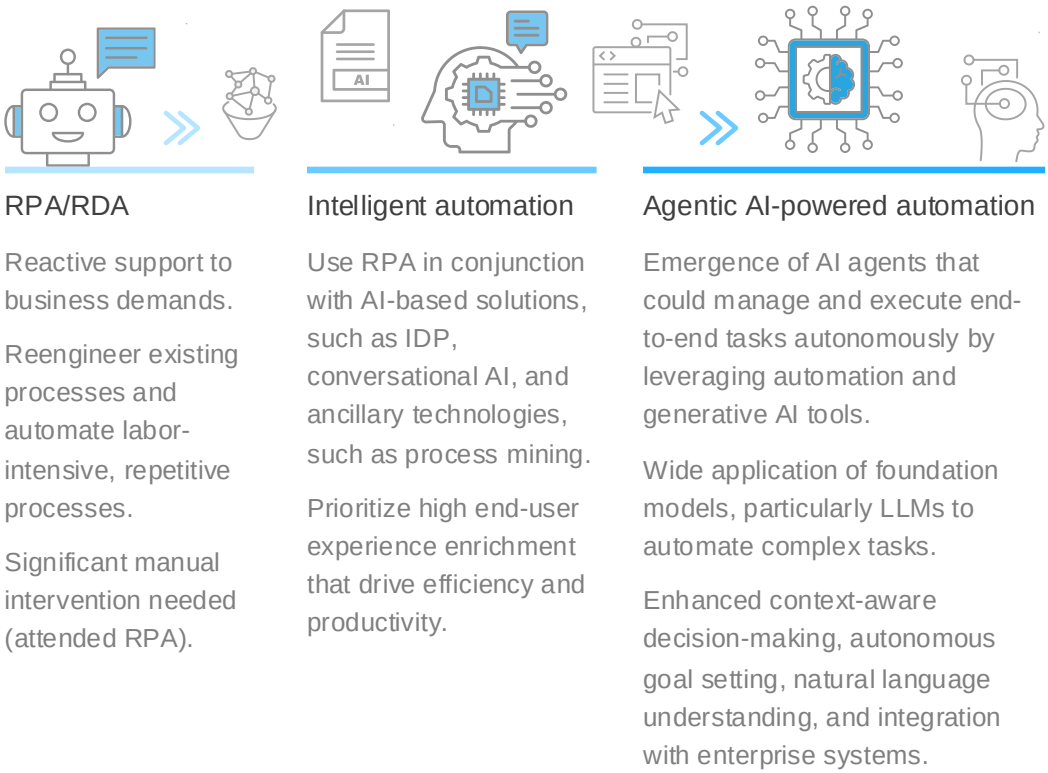
Despite these advances in IA, it lacked adaptive decision-making and execution abilities. Thus, IA evolved to include agentic AI to address these gaps and expand IA's scope to encompass more dynamic, complex, and goal-oriented tasks, which traditional technologies had left unfulfilled. Agentic AI is an advanced form of AI capable of autonomous decision-making and actions designed to pursue complex goals. It enables end-to-end workflow execution with minimal human intervention and employs RPA and existing automation tools to deliver better results.

Agentic automation brings agentic AI into automation, combining advanced autonomous AI capabilities with traditional intelligent automation technologies. Unlike previous automation approaches, agentic automation allows systems to analyze data, identify patterns, generate insights, structure processes, and complete work autonomously. This capability expands automation boundaries, fully automating complex, non-routinized workflows that were previously unfeasible. While RPA and AI-powered automation remain integral, agentic automation is reshaping the landscape by driving automation deeper into business operations.

Exhibit 2 presents automation evolution and agentic automation's inception.

Exhibit 2: Automation's evolution over time

Source: Everest Group (2025)



Demystifying agentic automation

There are numerous myths surrounding emerging transformative capabilities, such as agentic automation. If left unaddressed, these myths can obscure the technology's potential, delaying its adoption by enterprises. Here is an attempt to debunk some of the most common misconceptions:

- **Agentic automation will lead to widespread job displacement:** The notion that agentic automation will result in mass job losses reflects the capability's limited understanding. Instead of eliminating jobs, agentic automation has the potential to automate them and create new opportunities. By automating and executing workflows end-to-end, it enables workers to prioritize their roles' more complex, creative, and value-driven aspects. The agents augment their capabilities, creating new training, maintenance, and oversight opportunities.

Furthermore, it drives increased productivity and economic growth, fostering new industries and job categories

- **Agentic automation will render existing automation deployments obsolete:** The idea that agentic automation will render existing automation tools, such as RPA and traditional AI models, obsolete is a misconception. Instead, it complements and enhances these tools rather than replacing them. RPA specializes in automating rule-based, repetitive tasks, and traditional AI models excel at handling data analysis and pattern recognition. Agentic automation builds on these strengths, autonomously executing more complex decision-making tasks. Together, agentic automation with RPA and traditional AI creates a more integrated, end-to-end automation workflow
- **Agentic automation can deliver instant RoI:** The belief that agentic automation delivers results or RoI immediately in all use cases is another misconception. Implementing effective agentic automation workflows requires careful planning, design, seamless integration with existing systems, and significant investment in training, infrastructure, and employee reskilling. In scenarios where some level of RPA/automation is already in place, the RoI generated through agentic automation would be rapid. However, realizing the RoI might take a substantially longer time in greenfield scenarios. With this in mind, businesses must fine-tune their systems. While long-term benefits are transformative, enterprises should be prepared for a gradual return as the technology matures
- **Agents must be fully autonomous:** Widespread adherence to the belief that agents necessarily need to be fully autonomous makes unchecked autonomy a concern. Enterprises can carefully control and manage the autonomy level through various mechanisms. They can implement guardrails to restrict specific agent actions, define clear business rules, and integrate agents with deterministic automation tools, such as RPA, workflow automation tools, data integration, and ETL tools. Human oversight ensures agents retrieve data, analyze it, make relevant decisions, adapt, and act independently while staying aligned with enterprise goals. Importantly, autonomy is a journey; enterprises can achieve higher autonomy levels as they build trust and become comfortable with agents in specific processes

Thus, dispelling myths surrounding agentic automation is essential for fostering a clearer understanding of its capabilities and limitations. By clarifying what agentic automation can and cannot do, enterprises can make informed decisions about integrating it into their operations.

Agentic automation's expected impact

Agentic automation's potential business benefits

Agentic automation is poised to redefine business operations by automating complex decision-making tasks and optimizing workflows. Below, we list potential enterprise benefits of adopting agentic automation.

- **Improved decision-making:** The technology leverages DL and vast data-handling capabilities to make strategic decisions. It delves into the intricate data nuances and extracts meaningful patterns and insights that help businesses make data-driven decisions
- **Increased efficiency and automation:** With agentic automation, businesses can experience superior automation, including workflow optimization, enabling seamless task execution. This automation frees up valuable human resources to prioritize higher-value activities, driving productivity
- **Enhanced stakeholder experience:** Agentic automation enhances customer experiences by analyzing customer data and customizing interactions based on their behavior. Additionally, improved efficiency will lead to a better employee experience, allowing enterprises to benefit from enhanced human-AI collaboration
- **Revenue growth and cost optimization:** Agentic automation opens new revenue streams by facilitating personalized products, AI-driven services, and faster market entry. It also enables businesses to reduce costs through automation, decreased error rates, and optimized resource utilization. By autonomously managing workflows and making real-time decisions, AI reduces labor and operational expenses, allowing scalability without any proportional cost increases

Considering these benefits, agentic automation has the potential to be a game changer, enabling businesses to become more agile, efficient, and responsive, driving growth.

Agentic automation's potential impact on key industries and business functions

Agentic automation has the potential to transform industries and business functions, redefining operations and decision-making. For enterprises aiming to invest in this technology, understanding its impact across industries and business functions is crucial.

To assess agentic automation's potential impact on various industries and business functions, we evaluated them using key parameters, assigning ratings on a scale of 1 to 5. The final score, represented by the pointer on the scale, reflects the technology's overall impact on each industry and function.

The key parameters used were:

- **Regulatory compliance** assesses the stringency of compliance and regulatory standards in a given industry or business function. Strict compliance requirements can be a barrier to agentic automation deployment, as they may impose limitations on its integration and use
- **Innovation pace** evaluates the speed and frequency at which an industry or business function adopts and explores new technologies. Industries or functions with a higher innovation pace are more likely to embrace agentic automation due to their receptivity to technology advances
- **Opportunity cost** measures the potential value lost by not adopting agentic automation, considering the benefits forgone from continuing with current processes or technologies. A high opportunity cost signifies a greater incentive to adopt AI for enhanced efficiency and competitive advantage
- **Process complexity** analyzes business processes' complexity to determine agentic automation's potential to deliver value. More complex processes present a significant opportunity to leverage agentic automation, as it optimizes decision-making and streamlines intricate workflows
- **Data requirement** assesses the accessibility and structure of data in an industry or business function. Readily available and well-structured data is essential for training agentic automation models, making their deployment faster and more effective
- **The need for agentic automation** evaluates the specific gaps that agentic automation can address and the potential value it can add to a business function. Industries with significant operational inefficiencies or unmet needs are more likely to benefit from agentic automation's transformative capabilities

Exhibit 3 illustrates agentic automation's potential impact on key industries based on the capabilities described above. As per this analysis, the BFSI sector leads in potential impact, followed closely by healthcare and manufacturing.

Exhibit 3: Agentic automation's potential impact on various industries

Source: Everest Group (2025)

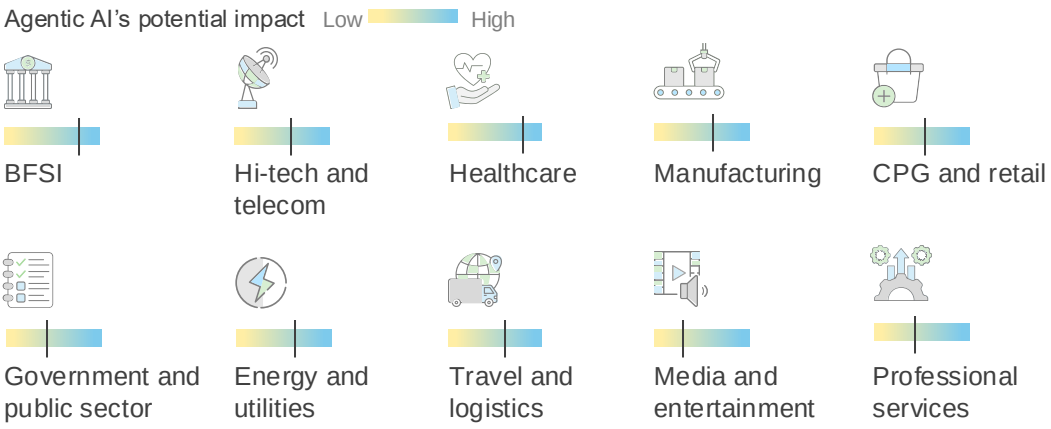
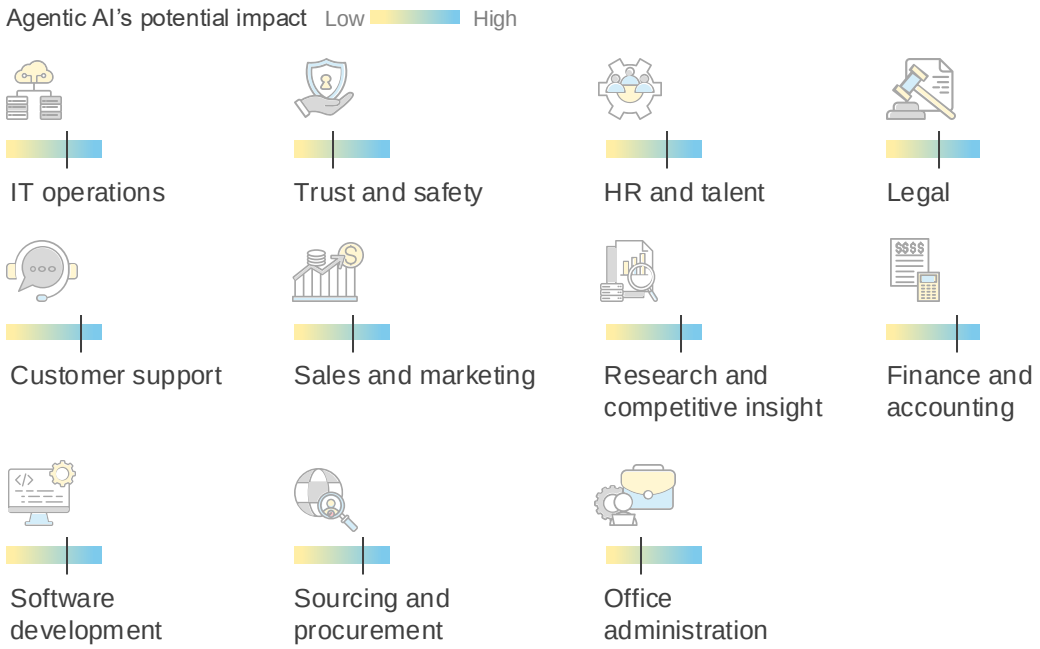


Exhibit 4 demonstrates agentic automation's potential impact on key business functions. Customer support, finance and accounting, research and competitive insights, and sales and marketing emerge as the standout areas. Enterprises can prioritize these functions to optimize their RoI in agentic automation.

Exhibit 4: Agentic automation's potential impact on various business functions

Source: Everest Group (2025)



Putting agentic automation into action

Agentic automation can optimize workflows, enhance productivity, and deliver strategic insights. The following use cases demonstrate its versatility and potential to transform how enterprises execute tasks.

Exhibit 5 highlights the key agentic automation use cases across industries that have the potential to scale.

Exhibit 5: Agentic AI use cases across industries

Source: Everest Group (2025)

BFSI

Use cases	Automate financial planning and intelligent portfolio management	Advanced fraud detection and prevention	Intelligent portfolio management	Compliance and regulatory reporting
	Customer engagement and retention	Data entry and migration	Policy administration	Claims processing

CPG and retail

Use cases	Product Stock Keeping Unit (SKU) management	Inbound shipment handling	Personalized shopping experience	Inventory management
	Demand prediction	Retail onboarding		

Healthcare

Use cases	Patient support through virtual health assistants	Drug discovery and development	Patient diagnosis and treatment	Early disease detection

Hi-tech and telecom

Use cases	Automation in research and development	Customer churn prediction and retention	AI-driven product recommendation	Network optimization and management
	Fraud detection and security			

Manufacturing

Use cases	Streamline operations and reduce costs	Warehouse management	Product simulation	Quality inspection
	Assembly line integration			

Professional services

Use cases	Report generation	Market research	Content creation	Summarization

Travel and logistics

Use cases	Near real-time travel assistance	Personalized travel planning

In addition to industries, agentic automation has the potential to revolutionize the execution of business functions.

Exhibit 6 lists key agentic automation use cases across business functions with the potential to scale.

Exhibit 6: Agentic automation use cases across business functions

Source: Everest Group (2025)

Customer support

Use cases	Customer support and query resolution	Customer onboarding and offboarding	Intelligent virtual assistants	Payment dispute resolution
	Return, refund, and replacement	Feedback collection and analysis	Customer complaint resolution	Customer engagement

Finance and accounting

Use cases	Automated financial reporting and analytics	Account receivables and collection management	Tax compliance and reporting

HR

Use cases	Improving employee onboarding experience	Performance review

Legal

Use cases	Contract management and analysis	Legal compliance and risk management	Legal research and document discovery	Intellectual property management

Sales and marketing

Use cases	Elevate digital marketing campaign	Social media management	Anticipate customer requirements	Inbound sales
	Sales forecasting			

Supply chain

Use cases	Demand forecasting	Courier management	Logistics and supply chain management

Sourcing and procurement

Use cases	Supplier selection and evaluation	Automated purchase order creation

Relevant use cases

After reviewing an exhaustive list of use cases, let us focus on two key examples demonstrating agentic AI's transformative impact.

KYC's evolution with automation and AI

The evolution of KYC operations reflects a significant transformation in financial institutions' approach to compliance and customer verification. Initially, KYC procedures were predominantly manual, involving extensive paperwork, manual screening, face-to-face interactions, and labor-intensive data verification.

Recognizing these challenges, the financial industry began integrating automation technologies to streamline KYC operations. The industry wide adoption of RPA and IDP enabled the automation of repetitive tasks, such as process documentation, due diligence, and screening. However, a few processes, such as risk analysis and process monitoring, still require manual intervention.

The need for more advanced technology led to agentic AI. Agentic AI can dynamically assess risk, detect real-time anomalies, and ensure continuous compliance with evolving regulations. This enables financial institutions to benefit from enhanced efficiency, reduced operational costs, and improved accuracy in customer verification.

Agentic AI automates risk assessment, detects anomalies in real time, and ensures continuous compliance to transform KYC operations.

Exhibit 7 illustrates the evolution of KYC request handling and agentic AI's pivotal role in managing these requests efficiently and autonomously.

Exhibit 7: KYC's evolution with automation and AI

Source: Everest Group (2025)

Fully automated | Partially automated | Human-in-the-loop for input and validation | Agentic AI's role | Agentic AI's impact

Automation's evolution

All manual work	Employing IA technologies	Leveraging agentic automation
Index request / Request intake	RPA automates indexing KYC requests to appropriate teams or systems	Autonomous agents handle request intake, categorize them, and initiate the routing process Faster, intelligent request triaging and allocation
Customer identification	IDP extracts data from identification documents Conversational AI uses chatbots to collect and verify customer details RPA automates collected data's input into core systems	Agents validate customer identity by extracting and verifying documents in near real-time, ensuring accuracy Improved accuracy and speed in identity verification
Process documentation	RPA automates creating and populating standardized KYC forms or process templates	Agents autonomously create and update KYC documentation using real-time inputs and templates Consistent, error-free documentation completed in a fraction of the time
Due diligence	RPA automates customer data cross-checking Conversational AI engages customers to provide missing data IDP validates customer documents submitted at this stage	Agents deep dive into multiple databases, analyze risk factors, and flag discrepancies Accelerated due diligence with comprehensive risk analysis with minimal intervention
Risk rating	AI/ML tools calculate risk scores by analyzing customer data against predefined criteria	Agents calculate risk scores dynamically using predefined models, adopt rules, and optimize scoring Intelligent, adaptive risk scoring leads to better decision-making and risk management
Screenings	RPA automates customer screenings against sanctions lists IDP processes supporting documentation for flagged cases during screenings	Agents perform screenings against sanctions, handling flagged cases seamlessly Real-time, thorough screenings with faster alert resolution and reduced false positives
Approval	RPA routes cases to the appropriate approvers and triggers notifications for pending approvals Conversational AI offers approvers quick summaries and highlights key risks	Agents validate compliance checks, make approval summaries, and escalate to approvers only when necessary Faster approvals through autonomous decision-making, reducing process delays
Continuous monitoring	RPA automates periodic customer checks by comparing them against predefined thresholds or regulations, detecting transaction anomalies, and triggering alerts for suspicious activities	Agents continuously monitor transactions, detect anomalies, adapt to patterns, and trigger investigations Real-time risk mitigation and improved detection accuracy with proactive issue resolution

Improving invoice processing with automation and AI

Invoice processing has traditionally been labor-intensive, requiring meticulous manual data entry, validation, and approval. This approach is susceptible to human errors, leading to increased operational costs and delayed payments.

Then, businesses began adopting automation technologies, such as RPA, IDP, and Conversational AI (CAI), to streamline data from multiple channels, extract relevant information, automate tasks, and flag discrepancies. But this still required manual intervention to execute processes.

To overcome this, agentic AI is being integrated into invoice processing marking the next evolutionary step. The technology possesses autonomous decision-making capabilities, enabling it to handle complex tasks with minimal human intervention. It can intelligently process invoices, identify discrepancies, and predict future invoicing patterns, further enhancing efficiency and accuracy. Businesses can embrace agentic AI to improve operational efficiency, reduce costs, and maintain a competitive edge in the rapidly evolving digital landscape.

Agentic AI enhances invoice processing with dynamic decision-making, reducing costs, and improving operational excellence.

Exhibit 8 outlines the comprehensive steps involved in invoice processing, contrasting traditional manual methods with advances achieved through existing automation technologies and agentic AI integration's transformative impact.

Exhibit 8: Invoice processing with automation and AI

Source: Everest Group (2025)

Human-in-the-loop for input and validation | Agentic AI's role | Agentic AI's impact

Fully automated | Partially automated

Automation's evolution

All manual work	Employing IA technologies	Leveraging agentic automation
Invoice receipt	RPA automates the collection of invoices from multiple channels Process orchestration seamlessly integrates multiple channels, such as email and ERP, for invoice reception	Autonomous agents collect invoices from multiple sources, categorize them, and initiate processing Faster and intelligent invoice intake
Invoice capture	IDP extracts structured and unstructured data (invoice number, vendor name, and amount) from invoices RPA transfers extracted data to ERP systems or financial tools	Agents extract and input data from invoices into systems Accurate and near real-time data extraction and entry
Invoice review	RPA automates matching invoices with Purchase Orders (POs) to verify details	Agents verify invoice details with POs and receipts, identifying discrepancies Streamlined and precise validation, reducing processing delays
Invoice dispute	RPA flags discrepancies, such as mismatched amounts and missing POs, and sends alerts to stakeholders Conversational AI engages vendors and internal teams to resolve disputes	Agents identify errors, engage with vendors for clarifications, resolve disputes, and adapt workflows based on past dispute outcomes Accelerated dispute resolution with proactive communication
Invoice approval	RPA automates routing invoices to approvers based on predefined rules (amount thresholds) Conversational AI notifies approvers and enables invoice approval or rejection via chat or voice	Agents validate invoices, generate summaries, and route them to approvers only when necessary Faster approval workflows with intelligent decision-making and reduced manual touchpoints

Agentic automation's implications for enterprises

Agentic automation can significantly enhance operational efficiency, enable data-driven dynamic decision-making, and improve customer experience, presenting several enterprise opportunities.

However, these opportunities bring new challenges that enterprises must tackle to ensure responsible and successful adoption.

Here are some key challenges associated with agentic automation, along with considerations to help enterprises effectively manage these obstacles and maximize its benefits.

Challenges	Considerations
Cost and RoI	
Investing upfront in technology, infrastructure, and training. Calculating the RoI for AI systems can be complicated, as benefits are often long-term and may not be measurable immediately. The cost of correlated failures in an agentic automation system can be substantial.	Revisit the sourcing strategy by optimizing AI providers' selection or building in-house capabilities. Prioritize high-impact use cases that ensure initial investments focus on clear business value and quick wins. Launch pilot projects to test agentic automation solutions in a controlled environment, measure performance, and adjust strategies accordingly.
Data privacy and security	
Risk of data privacy breaches and data leakages while processing personal and/or sensitive organizational data across internal and external systems. Agentic automation systems are susceptible to hacking, adversarial attacks, or manipulation.	Implement strong encryption and anonymization techniques to protect sensitive data during storage, processing, and transmission. Prioritize agentic automation solutions/platforms with appropriate guardrails across the life cycle. Explore a combination of on-premises, private cloud, and public cloud infrastructure based on data security needs. Design mechanisms to ensure AI systems can be overridden or controlled in the event of erratic behavior or malfunction. Implement strict access controls and continuous monitoring to ensure only authorized personnel or systems can interact with sensitive data. Leverage robots to manage vital interactions, such as handling sensitive credentials for performing secure sign-ins. In such scenarios, instead of offering agents direct access to usernames and passwords, the agents should call the robot and delegate the task to execute the sign-in step, ensuring controlled access and minimizing security risks.

Challenges	Considerations
Organizational change	
Establishing effective collaboration between humans and AI agents. Transitioning to agentic automation involves significant organizational changes, requiring companies to manage cultural resistance, uncertainty, and fear of work displacement.	Since roles and jobs are evolving with technology, employees need upskilling through targeted training to develop the skills needed to work alongside AI, manage AI-driven tasks, and build trust around the system. Outline clear role definitions to distinguish between tasks best suited for AI versus human oversight and redesign workflows to accommodate efficient AI agents' use.
Orchestration and integration	
Integrating agentic automation into existing enterprise infrastructure, particularly with legacy systems that were not designed to interact with AI. Scaling agentic automation across large, complex organizations will require significant IT infrastructure upgrades, advanced data management solutions, and increased cloud computing capacity. Agentic automation adoption is likely to lead to technology sprawl in an enterprise in the short term, with growing AI agents, models, and existing automation tools layered on top of underlying enterprise systems. Orchestrating these technology components is expected to become increasingly challenging. Achieving optimized workflows and processes, along with improved business outcomes, by leveraging agentic automation.	Revise automation and AI strategies to build a solid foundation by developing modular AI solutions, implementing robust data governance frameworks and scalable data architectures, such as data lakes, and leveraging cloud platforms. Integrate AI into existing infrastructure gradually through small pilot projects before expanding to full-scale deployment. Deploy middleware or custom APIs as connectors between their legacy systems and AI platforms. Build an orchestration layer or invest in a platform that can seamlessly integrate multiple agents, foundation models, traditional automation solutions, APIs, and connectors while delivering a great user experience and avoiding redundancies. Establish clear business objectives for agentic automation and define measurable Key Performance Indicators (KPIs) to track progress and outcomes. Additionally, foster cross-functional collaboration to engage stakeholders from IT, operations, and business units to ensure alignment and smooth adoption of automation initiatives.

Challenges	Considerations
Ethics and trust	
Assuring that agentic automation-driven decisions are explainable and transparent. Rising concerns about accountability as agentic automation systems make decisions independently. Ensuring fairness in AI-driven decisions as AI agents' autonomy could exacerbate bias in decision-making.	Track all data interactions and apply metadata to make agentic automation actions verifiable and invest in AI systems that offer clear explanations for their decisions. Conduct periodic AI system audits to ensure that decisions align with organizational goals, ethical standards, and legal requirements. Have human-in-the-loop to review and approve vital AI-driven decisions, especially in high-risk scenarios.
Regulatory and legal compliance	
Staying compliant with constantly updating data privacy, AI ethics, and operational transparency rules and laws by government bodies and other authorities. Determining liability in case of harmful or adverse effects caused by agentic automation.	Appoint dedicated personnel or teams to oversee compliance with AI regulations and regularly track evolving AI regulations and data privacy laws. Assign responsibility to specific teams or roles for AI decision-making processes, who will work as the first line of action in case of an adverse event. Create comprehensive internal policies outlining ethical AI use, compliance with legal standards, and procedures for regular reviews and audits. Consider tools and platforms that have built-in mechanisms to support both proactive and reactive compliance.

Enterprises can successfully harness agentic automation's transformative power by proactively addressing challenges and embracing best practices.

Conclusion

Agentic automation is still in the early stages of adoption and technology maturity. Enterprises are beginning to recognize the immense potential of agentic automation, with some piloting early use cases with existing or new technology partners. However, the full agentic capabilities, such as complete autonomy and dynamic decision-making, are still far off. The journey toward these capabilities has begun, with advances such as agent studios, low-code/no-code user interfaces, and prompt-based creation of workflows and agent stitching becoming more commonplace.

Over the next few years, agentic automation is expected to grow rapidly and transform the automation landscape. For the time being, an enterprise's automation stack will likely consist of a mix of rule-based automation / RPA for simple repetitive tasks, deterministic AI-led solutions for medium-complexity tasks, and more advanced AI agent-led solutions for high-complexity tasks. This will gradually shift toward more holistic and autonomous AI agents. Additionally, using Large Action Models (LAMs) will enhance agentic automation's sophistication by enabling it to interpret complex goals expressed in natural language.

While early adoption of agentic automation is currently focused on horizontal use cases, we can expect to see greater adoption for industry-specific processes in the near future. This will be supported by the emergence of industry-specific agentic automation applications and the resolution of current technology concerns.

In conclusion, while agentic automation is still in its infancy, its evolution is set to redefine operational paradigms and open up new avenues for innovation and growth. Enterprises must reevaluate their technology and automation strategies, taking measured steps to integrate agentic automation as a key component to stay competitive.

Everest Group®
With you on the journey

Everest Group is a leading research firm helping business leaders make confident decisions. We guide clients through today's market challenges and strengthen their strategies by applying contextualized problem-solving to their unique situations. This drives maximized operational and financial performance and transformative experiences. Our deep expertise and tenacious research focused on technology, business processes, and engineering through the lenses of talent, sustainability, and sourcing delivers precise and action-oriented guidance. Find further details and in-depth content at www.everestgrp.com.

This study was funded, in part, by UiPath

For more information about Everest Group, please contact:

+1-214-451-3000

info@everestgrp.com

For more information about this topic please contact the author(s):

Vaibhav Bansal, Vice President
vaibhav.bansal@everestgrp.com

Amardeep Modi, Vice President
amardeep.modi@everestgrp.com

Vershita Srivastava, Practice Director
vershita.srivastava@everestgrp.com

Divya Chandak, Senior Analyst
divya.chandak@everestgrp.com

Shreepriya Sinha, Senior Analyst
shreepriya.sinha@everestgrp.com

Notice and Disclaimers

Important information. Please review this notice carefully and in its entirety. Through your access, you agree to Everest Group's terms of use.

Everest Group's Terms of Use, available at www.everestgrp.com/terms-of-use/, is hereby incorporated by reference as if fully reproduced herein. Parts of these terms are pasted below for convenience; please refer to the link above for the full version of the Terms of Use.

Everest Group is not registered as an investment adviser or research analyst with the U.S. Securities and Exchange Commission, the Financial Industry Regulatory Authority (FINRA), or any state or foreign securities regulatory authority. For the avoidance of doubt, Everest Group is not providing any advice concerning securities as defined by the law or any regulatory entity or an analysis of equity securities as defined by the law or any regulatory entity. All Everest Group Products and/or Services are for informational purposes only and are provided "as is" without any warranty of any kind. You understand and expressly agree that you assume the entire risk as to your use and any reliance upon any Product or Service. Everest Group is not a legal, tax, financial, or investment advisor, and nothing provided by Everest Group is legal, tax, financial, or investment advice. Nothing Everest Group provides is an offer to sell or a solicitation of an offer to purchase any securities or instruments from any entity. Nothing from Everest Group may be used or relied upon in evaluating the merits of any investment.

Do not base any investment decisions, in whole or part, on anything provided by Everest Group.

Products and/or Services represent research opinions or viewpoints, not representations or statements of fact. Accessing, using, or receiving a grant of access to an Everest Group Product and/or Service does not constitute any recommendation by Everest Group that recipient (1) take any action or refrain from taking any action or (2) enter into a particular transaction. Nothing from Everest Group will be relied upon or interpreted as a promise or representation as to past, present, or future performance of a business or a market. The information contained in any Everest Group Product and/or Service is as of the date prepared, and Everest Group has no duty or obligation to update or revise the information or documentation. Everest Group may have obtained information that appears in its Products and/or Services from the parties mentioned therein, public sources, or third-party sources, including information related to financials, estimates, and/or forecasts. Everest Group has not audited such information and assumes no responsibility for independently verifying such information as Everest Group has relied on such information being complete and accurate in all respects. Note, companies mentioned in Products and/or Services may be customers of Everest Group or have interacted with Everest Group in some other way, including, without limitation, participating in Everest Group research activities.