Agentic AI: Redefining Autonomous Intelligence

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Agentic AI refers to AI systems that can autonomously make decisions, take actions, and pursue goals based on their understanding of the environment, rather than just responding to inputs.
In **Pega**, Agentic AI brings self-directed intelligence across the platform. Here's what it **does-**

- **Observe Processes (Process Mining) -** Tracks how cases flow through the system
- **Analyse & Detect Issues (Process AI)-** Uses real-time data to detect SLA risks or bottlenecks
- **Decide & Act (Decisioning + Automation)-**Chooses the best next step based on rules and ML
- **Communicate (Email Bot / Voice AI) -** Reads, understands, and replies to customer messages
- **Learn & Adapt (Adaptive Models) -** Learns which offer customers prefer and updates suggestions
- **Orchestrate Across Apps -** Works across departments and workflows

This is agentic AI: **self-directed, adaptive, and working across the full enterprise.**

Difference Between Gen AI and Agentic AI

Aspect	Gen AI	Agentic AI
Generates	Content	Actions + Plans
Focus	Text & suggestions	Goal achievement
User Role	Prompt-based	Goal-based

Agentic AI Using LAM (Large Action Model)

Difference between LLM and LAM

LLM (Large Language Model):
A powerful AI model trained on huge text data to understand and generate language.
Example: ChatGPT, GPT-4.

LAM (Large Action Model):
A newer type of AI that uses LLM + tools + planning + actions to perform tasks/goals — not just generate text.

LAM = LLM + memory + reasoning + tools + actions.

Agentic AI:

- Agentic AI = LLM + Memory + Reasoning + Tools + Actions.
- It includes the ability to:
    a. Reason: Make logical decisions.
    b. Use Tools: Interact with external systems like APIs or databases.
    c. Perform Actions: Take concrete steps based on user input.
    d. Contextual Memory: Retain and use past context in multi-turn interactions.

Use Cases of Agentic AI

1. Customer Service

Example: A customer asks a chatbot to reset their password.

- Agentic AI understands the intent, verifies identity, and completes the reset process automatically, without human help.

2. Financial Services

Example: A suspicious transaction is detected.

- Agentic AI analyses the data, flags it as fraud, and automatically starts a workflow to block the card and notify the customer.

3. Healthcare

Example: A patient's wearable device shows abnormal vitals.

- Agentic AI alerts the doctor, schedules an appointment, and provides health history for early intervention.

Agentic AI capabilities

1) Workflow Design

Capability: Gen AI Blueprint
Why It's Agentic AI: It doesn't just suggest — it builds the case structure in Pega automatically.
Example:
A business user types: *"Create a loan application case type."*
Blueprint understands the intent and auto-generates:

- Case Type: Loan Application
- Stages:

Stage 1: Application Submission

Stage 2: Document Verification

Stage 3: Credit Check

Stage 4: Final Approval

- Steps: Upload documents, run credit check, assign to loan officer
- Data model: applicant Name, income, documents, credit Score

Result: The entire case type is generated and runnable in App Studio — zero manual clicks.

2) AI-Powered Decision

Capability: Autonomous Decisioning
Why It's Agentic AI: AI analyses, decides, and acts instantly.

Example

- A customer submits a **home loan application**.
- At the **same time**, Agentic AI Scans **real-time market news** and economic signals.
- Detects that the customer's city is experiencing a **natural disaster warning** (e.g., major flooding).
- Determines this will likely **impact property value and repayment risk**.

2.1) Next Best Action (NBA)

Example:
a. A customer **starts** a home loan application but **stops midway** after uploading income proof.

b. Agentic AI detects **behavioural hesitation** based on:

- Interaction time,
- Drop-off pattern,
- Past engagement history.

c. Instantly, it:

- Calculates the best incentive for that specific user.
- Sends a **personalized offer**:
  "Complete your application today and get 0.5% lower interest."

d. If the user **ignores**:

- Agentic AI waits 24 hours.
- Then, switches the channel (e.g., **SMS**) and rephrases the message based on tone analysis:
  "Hi [Name], your loan pre-approval is almost ready. Let's finish it now for a lower rate."

2.2) Email Bot

Example:
Thousands of applicant's emails asking, *"What documents are needed?"*
Email Bot understands the intent and replies instantly with a checklist specific to the applicant's loan type.
☑ **Reduces manual effort and speeds up support.**

2.3) Voice & Messaging AI

Example:
An applicant calls and says, "I want to know my loan status."
Voice AI converts the speech, detects intent, fetches loan status, and replies — without an agent.

2.4) Customer Self-Service

Example:
A user opens the app to withdraw a loan application.
The AI chatbot understands, verifies the identity, and cancels the application autonomously.

2.5) Pega Process AI

Example:

- A customer submits a loan request.
- AI predicts delay due to missing documents.
- It auto-sends a reminder to the customer.
- If ignored, reassigns it to a fast-track review team.
  ☑ SLA saved = proactive optimization.

2.6) Pega Process Mining

Example:
Process Mining finds frequent delays during credit checks.
It recommends auto-validating data with third-party services **before** reaching the underwriter.
☑ **Continuous improvement = self-optimizing workflow.**

3) Workflow Execution

Example:
A user says: *“I want to increase my loan amount.”*
AI interprets the request, triggers a workflow to validate eligibility, reruns risk analysis, and auto-initiates an approval flow.

Why it's agentic AI:
Because the AI acts on its own to understand the request and execute the right steps, showing autonomy and goal-driven behaviour.

4)Workflow Optimization

Workflow optimization is about improving business processes to reduce waste, speed up execution, and boost efficiency, improves existing processes to make them faster and smoother.
Example:
Pega analyses the loan approval process and finds manual checks taking too long.
It removes redundant steps and introduces document auto-verification.
☑ **Faster processing, reduced bottlenecks.**

5) Adaptability

Adaptability means the AI can adjust to unexpected changes and keep work moving smoothly by predicting what to do next.

Example:
During festive seasons, loan requests spike.
Agentic AI adjusts by prioritizing high-value applications and triggering **autoreplies** to common queries.
☑ **Reduced load, maintained efficiency.**