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•••Shortage of professionals with expertise in both AI and life sciences complicates adoption•

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With its ability to both generate insights and act on them autonomously, agentic AI is poised to revolutionise the process of developing new therapies and bringing them to the market. Across every stage of the value chain, from R&D to manufacturing to commercialisation, agentic AI is already having a significant impact. This evolution is particularly pertinent to India's dynamic life sciences landscape, where AI adoption is accelerating rapidly. While traditional AI systems have focused on analysing data and providing insights, agentic AI represents the next frontier. To understand more about the application of agentic AI in India, BioSpectrum spoke to Mohit Sood, Regional Managing Principal at ZS, a global management consulting and technology firm with over 40 years of legacy in transforming healthcare globally.



How is agentic AI fundamentally reimagining the life sciences ecosystem?

Agentic AI is revolutionising the life sciences industry by enabling autonomous systems that can plan, execute, and adapt complex tasks across R&D, clinical trials, manufacturing, and regulatory processes. These intelligent agents can rapidly analyse biological data, identify drug targets, design experiments, and even monitor trials in real time. Agentic AI's automation and redesign of commercial processes, such as launch control and omni-channel campaign deployment, significantly enhance efficiency and precision, reducing human error and operational costs. This transformation enables businesses to achieve faster, data-driven decision-making and improved customer engagement.

Globally, this shift is driving breakthroughs in areas like precision medicine and regulatory compliance. In India, while adoption is still maturing, there's strong momentum, especially with service provider companies integrating agentic AI into research, diagnostics, and automation workflows. As infrastructure and regulatory frameworks evolve, agentic AI is set to unlock significant gains in both speed and scale for the Indian life sciences ecosystem.

Can you elaborate on how India's pharmaceuticals and life sciences global capability centres (GCCs) are adapting to agentic AI innovation? What role is ZS playing here?

GCCs are rapidly evolving into innovation hubs that solve complex problems with greater precision and insight. They play a critical role in accelerating R&D, driving emerging technology adoption, and enabling strategic business transformation. To power this shift, GCCs invest significantly to upskill their workforce through AI academies and certification programmes. A key focus is the development of AI translators, professionals who can bridge domain expertise in life sciences with technical AI capabilities. These individuals are instrumental in identifying and implementing high-value, agentic AI solutions across the enterprise.

We position ourselves as a capability and expertise centre because our mission has always been to consolidate knowledge and serve as both the heart and brain of our global operations. With nearly two decades of presence in India, we offer a unique vantage point to support GCCs in navigating the rapidly evolving life sciences landscape. Over the past two to three years, we've witnessed significant growth in this sector and have actively collaborated with several life sciences GCCs as they establish and expand their operations, helping them advance toward their strategic objectives.

ZS plays a pivotal role in supporting both new and existing GCCs. For new centres, we help build strong foundations by crafting business cases, operational blueprints, success metrics, and transition roadmaps that enable faster value realisation. Through our GCC-as-a-service model, we enable operating model design, tech-driven transformation, and the creation of talent ecosystems and innovation labs. For established GCCs, ZS offers Build-Operate-Transfer or Enable models, enhanced by our proprietary platforms such as ZAIDYN and Max.AI.

How does ZS differentiate its approach to agentic AI from other AI-powered solutions currently being deployed in the life sciences sector?

ZS's approach to agentic AI is deeply rooted in its life sciences expertise, making it uniquely differentiated in the market. At the core of this capability are two primary platforms. ZAIDYN: which is focused on life sciences and supports end-to-end commercial use cases. It helps take a drug from development to launch, covering all aspects of patient services and beyond. AI is embedded in the modules of the ZAIDYN platform to support these activities. Max.AI which is an industry agnostic platform allows our data scientists to create agents across industries with pre-trained models grounded in life sciences data, terminology, and regulatory requirements. Max.AI enables faster deployment within 2-4 weeks for our clients, allows for rapid building and monitoring, along with access to dedicated expertise in early engagement, engineering, AI, and customer success.

Unlike traditional AI systems that rely on monolithic models, ZS employs a collaborative ecosystem of AI agents. Each agent is designed for specialised tasks such as policy analysis or formulary verification enabling high-efficiency workflow automation that delivers greater precision and speed.

ZS has also formed strategic partnerships with organisations like Cerebras, allowing for training of LLMs up to 70 times faster. This significantly accelerates time-to-value for clients and enables quicker deployment of AI solutions. Importantly, ZS supports full-spectrum integration of agentic AI across the life sciences value chain. This means organisations can embed advanced AI into existing workflows with minimal disruption, driving end-to-end efficiency and innovation.

What are the challenges to adoption of agentic AI and how are ZS's products addressing it?

Generic AI often falls short in understanding the complex terminology, workflows, and strict regulations specific to healthcare, limiting its effectiveness in critical tasks. Moreover, AI must integrate with legacy systems and handle sensitive patient data, creating both technical and compliance hurdles. The shortage of professionals who possess expertise in both AI and life sciences further complicates adoption, making organisations heavily reliant on external support.

ZS addresses these challenges through innovative AI capabilities harnessing both GenAI and agentic AI. GenAI capabilities have been incorporated into our analytics for drug development and brand planning, resulting in a reduction of effort and time by over 30 per cent and quicker execution. Our latest innovation, Max.AI, harnesses GenAI capabilities to develop AI agents that accelerate enterprise use cases. Our LLM agents are notable for their easy setup, allowing deployment within 2-4 weeks, rapid building and monitoring, and support from dedicated teams specializing in early engagement, engineering, AI, and customer success.

To ensure safe and responsible AI usage, Max.AI includes built-in security and compliance features that align with healthcare's rigorous privacy standards. ZS also empowers clients through validation tools, comprehensive training, and collaborative support, helping build internal capabilities and ensuring sustained, long-term adoption of AI within the enterprise. Another example is Atlas, a tool that accelerates market research by up to 40 per cent compared to traditional methods using pre-built ontologies and integrated customer insights.

How do you envision the evolution of agentic AI in life sciences over the next 3-5 years in India?

India is at the forefront of the agentic AI revolution, with over 80 per cent of enterprises actively exploring the use of autonomous agents to drive efficiency and foster innovation, as per recent industry report. In life sciences, this shift is particularly transformative, accelerating drug discovery, enhancing diagnostic precision, and optimising operational workflows.

Over the next 3–5 years, data will be the backbone of successful AI implementations. However, many organisations still grapple with fragmented, unstructured data. Agentic AI will function as 24/7 digital collaborators in clinical trials, autonomously

recruiting eligible participants, monitoring adherence, flagging adverse events, and preparing trial documentation in real time. From drug discovery to patient care, these systems will operate as autonomous, intelligent agents trusted to make decisions, freeing up humans for oversight, innovation, and ethics.

Furthermore, as machine-to-machine interactions increase with automation, enterprises can take the lead in building scalable, end-to-end intelligent systems that minimise human intervention and maximise efficiency, paving the way for future-ready, AI-driven enterprises.

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