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AI in Pharma, MedTech & Biotech: Unlocking Commercial Success →

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Executive Summary

Artificial intelligence (AI) has emerged as a transformative force in the life sciences industry, revolutionising commercial and procurement operations in pharmaceuticals, medtech, and biotech.

By leveraging AI-driven analytics, real-world evidence (RWE), and predictive modelling, organisations can enhance efficiency, accelerate innovation, and develop data-driven strategies to address complex market challenges. These challenges include navigating fragmented regulatory landscapes, optimising pricing strategies, ensuring cost-efficient operations, and adapting to evolving value-based care models.

The lifesciences industry operates in a dynamic regulatory environment, requiring companies to align innovation, affordability, and accessibility with commercial imperatives such as pricing optimisation, market access, and lifecycle management. AI-powered platforms like Polaris from Vamstar enable organisations to break down data silos, convert fragmented information into actionable insights, and develop predictive strategies for sustained growth. However, AI adoption must be tailored to an organisation's unique challenges, making expert engagement and customised solutions essential for maximising AI's potential and securing competitive advantage.

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Key Takeaways

IMPROVING OPERATING MARGINS:

The life sciences industry faces growing pressure to enhance operational efficiency. With SG&A costs surpassing 40%, agentic automation—encompassing solutions such as sales enablement and CRM automation—unlocks substantial value for organisations.

AI AS A STRATEGIC ENABLER:

Advanced analytics, Real-World Evidence (RWE), and predictive modelling are reshaping how life sciences organisations address pricing, market access, and sustainability targets.

DRIVING REVENUE GROWTH:

AI-driven pricing optimisation helps companies reclaim up to 22% of lost value caused by outdated or static methodologies.

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STREAMLINING MARKET ACCESS:
AI-powered tools, such as Polaris, simplify navigation of fragmented regulatory landscapes, ensuring compliance and fostering patient-centric strategies.

SUSTAINABILITY AND ESG ALIGNMENT:
AI-driven insights enhance transparency in value-based procurement (VBP) and environmental, social, and governance (ESG) decision-making.

TAILORED AI SOLUTIONS:
Engaging with AI specialists ensures bespoke strategies that align with an organisation's unique needs and commercial objectives.

Contact us →
Discover how AI can propel your commercial outcomes, contact us today for a tailored consultation.

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Introduction

The life sciences industry stands at the intersection of evolving global regulations, patient-centric care models, and cost-efficiency pressures. Regulations often vary significantly by region, requiring adaptive and agile commercial strategies. Organisations must balance operational efficiencies, pricing optimisation, market access, lifecycle management, and growing demands for transparency in an increasingly value-based healthcare environment.

These challenges are both interconnected and dynamic. For example:

→ *Pricing Optimisation involves integrating real-world evidence to set competitive yet justifiable prices.*

→ *Market Access strategies demand alignment with payer requirements, regulatory hurdles, and patient needs across diverse markets.*

→ *Lifecycle Management ensures the ongoing viability of products through approaches like line extensions, generic launches, and geographic diversification.*

AI technologies like Vamstar's Polaris Agentic platform offer data orchestration, advanced analytics, and predictive modelling to tackle these complexities. Polaris converts fragmented data into actionable insights, guiding life sciences companies towards data-driven decisions. Engaging with expert partners who can tailor AI solutions is critical for achieving sustainable growth and competitive advantage. Selecting the right partner is even more critical, Vamstar not only brings cutting edge AI technology to support your commercial goals but also supports your organisation with combined industry experience exceeding 75 years.

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AI-Driven Pricing Optimisation

Pricing is a vital lever for revenue growth, yet many organisations still rely on manual or outdated tools. Our extensive research indicates up to 22% of potential value is left untapped in every pricing decision—from launch to late-stage lifecycle.

Dynamic Pricing and Predictive Analytics

→ *Machine learning models assess market trends, buyer behaviours, and procurement patterns in real-time.*

→ *Vamstar's Pricing Co-Pilot, powered by Polaris, improves tender win rates and revenue forecasting, even for early-stage assets.*

Value-Based Pricing (VBP)

→ *AI aligns pricing with clinical and economic outcomes, vital in a value-based healthcare model.*

→ *By scanning vast clinical and real-world datasets, Vamstar's algorithms predict and justify pricing based on health technology assessments and payer expectations.*

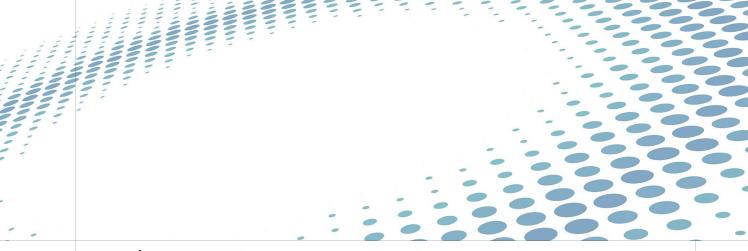03 / AI-Driven Pricing Optimisation / continued

Regional and Global Harmonisation

→ *AI-powered insights inform tiered pricing strategies that cater to distinct economic conditions.*

→ *Incorporating data from multiple markets ensures coherence and optimises price points for each segment.*

Contact us →
**Capture more value in your pricing decisions.
Speak with our AI specialists to explore tailored strategies for your portfolio.**

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Enhancing Market Access with AI

Market access in life sciences is a multi-dimensional challenge, encompassing procurement strategies, reimbursement negotiations, regulatory compliance, and patient outreach. AI-driven tools play a crucial role in streamlining these processes by automating data analysis, identifying policy changes in real-time, and providing predictive insights to anticipate market trends. By leveraging AI-powered platforms like Polaris, organisations can enhance their ability to navigate fragmented regulatory environments, align with payer requirements, and ensure timely patient access to life-saving treatments.

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Evidence Mapping

→ *Vamstar's Market Access Component, powered by Polaris, autonomously collates policy evidence and clinical data.*

→ *Prioritise critical evidence and pinpoint policy changes that directly influence your organisation's procurement strategy.*

Policy Tracking

→ *Continuous monitoring of regulatory landscapes (including sustainability and ESG regulations) keeps your commercial efforts aligned and compliant.*

→ *Real-time alerts enable rapid strategy adjustments, minimising the risk of non-compliance.*

Patient-Centric Strategies

→ *AI-driven market access ensures solutions are designed around patient outcomes and payer requirements.*

→ *This alignment fosters stronger stakeholder collaboration and smoother reimbursement pathways.*

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Navigating Loss of Exclusivity (LOE)

Facing generic and biosimilar competition is inevitable in pharmaceuticals. AI helps manage the patent cliff by guiding proactive, data-driven lifecycle management. By leveraging predictive analytics and real-world evidence, organisations can anticipate market shifts, optimise pricing strategies, and enhance portfolio planning. AI-driven lifecycle strategies also support early identification of differentiation opportunities, such as combination therapies or innovative formulations, helping pharmaceutical companies maintain market presence and maximise revenue potential beyond patent expiration.

Predictive Market Analytics

→ *AI models anticipate demand shifts and competitor moves, enabling timely adjustments in lifecycle strategies.*

→ *Organisations can identify potential gaps in their portfolio and plan product extensions or market expansions accordingly.*

Lifecycle Management

→ *AI identifies opportunities for innovation, such as line extensions, co-formulations, and in-house generics.*

→ *One generics manufacturer using Vamstar's AI achieved an 80% boost in tender win rates, recouping €2.8 million in revenue on a single molecule.*

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Integrating Value-Based Procurement (VBP) and ESG

Procurement is being reshaped by frameworks that emphasise both patient outcomes and environmental impact. AI aligns these objectives to transform procurement processes.

Unified Frameworks

→ *AI consolidates disparate data sources, linking procurement decisions to sustainability and value-based metrics.*

→ *This creates a cohesive view of cost-effectiveness, patient benefit, and ESG outcomes.*

Evidence and Impact Tracking

→ *AI systems map clinical data alongside ESG factors, enabling transparent and responsible procurement.*

→ *Tools like Vamstar's ValueGPT measure outcomes against sustainability metrics, ensuring accountability.*

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Tools and Technologies Powering AI in Life Sciences

The Polaris platform underpins Vamstar's suite of AI-driven tools, designed to solve the most pressing challenges in pharmaceuticals, medtech, and biotech.

Market Access Component

→ *Autonomously gathers and analyses policy and clinical evidence.*

→ *Delivers strategic insights for proactive procurement and regulatory alignment.*

Price Optimisation

→ *Industry-specific machine learning models for dynamic and value-based pricing.*

→ *Ensures maximum tender success rates with minimal revenue leakage.*

Contract Management and CRM Automation

→ *Streamlines contract discovery and analysis, reducing manual data entry.*

→ *Enables rapid opportunity filtering and automatic updates in CRM for faster responses in a competitive market.*

07 / Tools and Technologies Powering AI in Life Sciences / continued

Pricing Co-Pilot

→ *Integrates predictive analytics and automated pricing decisions.*

→ *Helps organisations enhance tender bidding processes and optimise revenue growth.*

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30% of sales and commercial teams' time is spent on data entry. Take a step forward today. Request a demo of Vamstar's agentic solutions to learn more.

Why Polaris?

Polaris is our advanced agentic AI-powered data integration, analytics, and predictive modelling platform designed to help organisations in life sciences manage, analyse, and derive insights from their data at scale. By breaking down data silos and transforming raw data into actionable knowledge, Polaris enables enterprises to optimise workflows while empowering decision-makers to make data-driven choices.

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Conclusion and Next Steps

AI is revolutionising commercial operations across the life sciences industry. Many leading pharmaceutical and medtech companies are integrating AI to boost revenue, sharpen margins, and gain a competitive edge. The question today is no longer whether to implement AI but rather who to trust for its effective deployment. Unlike generalist AI providers, Vamstar is exclusively focused on the life sciences industry, offering deep domain expertise and insights well beyond the scope of broader AI solutions. To fully explore how AI can transform your commercial strategies, speak to our specialists. We'll work with you to develop and implement an approach tailored to your portfolio, market challenges, and long-term business goals.

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