### vamstar

# Navigating Pharmaceutical Industry in 2024

D Avg. Reading Time: 5 min

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#### Introduction

The pharmaceutical industry has navigated through a turbulent landscape marked by the aftermath of the COVID-19 pandemic, escalating inflationary pressures, and geopolitical instability. This period has necessitated rapid adaptation, fostering innovation, and prompting a re-evaluation of supply chain strategies, commercialisation models, and manufacturing operations. As the industry transitions into 2024, the growth trajectory has experienced a notable deceleration compared to previous years.

According to Vamstar's comprehensive analysis, leveraging our cutting-edge AIbased market intelligence platform, the global pharmaceutical industry's total revenue reached a staggering \$1.42 trillion in 2022. However, the growth rate slowed from a remarkable 14.4% in 2021, a post-pandemic high, to a modest 5.2% in 2022 - the lowest level since 2017. This downward trend has persisted into 2023, with revenues across major therapeutic areas and product segments exhibiting minimal to negligible growth compared to the previous year.

experienced a resu latter half of 2023, their revenue growth rates have yet to attain pre-pandemic levels. Moreover, there is sustained pressure on the margins. This deceleration can be attributed to several factors, including supply chain disruptions, pricing pressures, and evolving regulatory landscapes across various markets. The industry's resilience has been tested by the need to

rapidly adapt to changing market dynamics, invest in digital transformation initiatives, and prioritise sustainable practices. Pharmaceutical companies have been compelled to re-evaluate their business models, explore strategic partnerships, and leverage cutting-edge technologies to drive innovation and optimise operational efficiencies.

As the industry navigates these challenges, the focus has shifted towards developing innovative therapies, enhancing patient outcomes, improving commercial operations, and ensuring equitable access to life-saving medications. Collaboration between pharmaceutical companies, regulatory bodies, payers, and healthcare providers has become paramount in addressing global health challenges and fostering a more sustainable and resilient ecosystem.



#### Net Profit Margin of top 10 Pharma Companies



Abbvie 🛑 JnJ 🛑 Merck & Co 🛑 Novartis 🛑 Roche 🛑 Bris<sup>.</sup> ┥ 1/2 🕨 Pfizer

### Changes Impacting The Industry

# 🖀 Healthcare Workforce



#### Organisational Realignment AI Productivity Race

### **FX** Pressures

The foreign exchange landscape in 2023 presented both challenges and opportunities for the industry. As a global enterprise, many companies are exposed to currency fluctuations that impact their top and bottom lines. However, proactive hedging strategies, coupled with strategic supply chain diversification and re-engineering efforts, enabled companies to mitigate the adverse effects of FX volatility. In response to the inflationary pressures exacerbated by central banks' monetary policies and the uneven economic recovery, many companies implemented judicious pricing adjustments across the product portfolio. These measures were essential to maintain the profitability and reinvest in the research and development of life-saving therapies. The industry's commitment to innovation and patient access remained unwavering despite the macroeconomic headwinds. By leveraging financial acumen and operational agility, most companies successfully navigated the turbulent landscape, ensuring the seamless supply of vital medications to patients worldwide.



### Healthcare Workforce

The ongoing budgetary pressures and workforce challenges within healthcare systems, such as those in the EU and the US, underscore the critical need for cost-effective and efficient solutions from the pharmaceutical industry.

As public health spending tightens in the wake of the COVID-19 pandemic, exemplified by the discontinuation of emergency legislation in the EU, healthcare providers are increasingly seeking ways to optimise their resources while maintaining high-quality care standards.

This scenario presents a unique opportunity for pharmaceutical companies to step in with innovative products and services that can alleviate the burden on strained healthcare systems. For instance, the development of novel therapies that improve patient outcomes and reduce the need for prolonged hospitalisations or intensive care could potentially lead to significant cost savings for healthcare providers. Moreover, the growing shortage of healthcare professionals, with the EU alone facing a deficit of 1.8 million workers that is projected to reach 4 million by 2030, highlights the importance of pharmaceutical solutions that can enhance workforce productivity and efficiency.

This could include digital health technologies that streamline workflows, remote patient monitoring tools that reduce the need for in-person visits, or disease management programs that empower patients to take a more active role in their care. By addressing these challenges head-on, pharmaceutical companies can position themselves as invaluable partners to healthcare systems, providing innovative solutions that not only drive revenue growth but also contribute to the long-term sustainability and resilience of public health infrastructures.



🗊 FX Pressures

FX Pressures

🏝 Healthcare Workforce

🖀 Healthcare Workforce

🖬 Organisational Realignment

AI Productivity Race



In recent times, pharmaceutical companies have faced increased operational costs (including higher SG&A costs), inflation, and rising interest rates, leading to workforce reductions, restructuring, and spinoffs.

Organisational Realignment

Among the top pharmaceutical companies, approximately 80% have ongoing initiatives (launched post-COVID) to simplify their product portfolios, rationalise drug candidates, and streamline their operating models. The industry, particularly in Europe, saw a decline in profitability during 2022 and 2023, attributed to supply chain disruptions, higher energy and material costs, and wage inflation. Experts recommend focusing on immediate operational efficiency and a

long-term commitment to environmental, social, and governance (ESG) performance as remedies. For example, Pfizer Inc. announced a restructuring plan in 2022, which included cutting approximately 300 positions and discontinuing several early-stage drug development programs to streamline operations and reduce costs. Similarly, Novartis AG implemented a major overhaul of its business, spinning off its generics division, Sandoz, and focusing on innovative medicines and technology-driven therapies. Certain pharmaceutical companies have successfully grown in revenue

and profits by maintaining strategic focus, commercial realignment with technology adoption, innovation, efficient cost management, and robust ESG practices. For instance, AstraZeneca PLC has been investing heavily in oncology and cardiovascular research, leading to the approval of several blockbuster drugs, such as Tagrisso and Lynparza. The company has also embraced digital technologies, including artificial intelligence and machine learning, to accelerate drug discovery and development processes. Another example is Novo Nordisk A/S, a leading company in the diabetes care market, which has implemented various sustainability initiatives, including reducing its environmental footprint and improving access to affordable healthcare in underserved communities. The company's commitment to ESG has been recognized by its inclusion in the Dow Jones Sustainability Index and other sustainability rankings.

As 2024 progresses, the pharmaceutical industry is expected to continue confronting these challenges, underscoring the need for both operational excellence and ESG integration to navigate the evolving market landscape effectively. Companies that can strike the right balance between cost optimisation,

strategic focus, innovation, and ESG practices are likely to emerge as winners in the long run.

# **AI Productivity Race**

💷 Organisational Realignment



One area where AI is making significant strides is in drug discovery and development. Pharmaceutical giants like Pfizer, Merck, and GlaxoSmithKline are leveraging AI-powered platforms to analyse vast amounts of data, identify promising drug targets, and optimise molecule design. For instance, Pfizer's 'IBM Watson for Drug Discovery' partnership has accelerated the identification of potential drug candidates for immuno-oncology and Alzheimer's disease. Similarly, Novartis has employed AI algorithms to predict the binding affinities of small molecules, streamlining the lead optimisation process.

Furthermore, AI is revolutionising clinical trials, enabling faster patient recruitment, remote monitoring, and data analysis. Companies like AstraZeneca and Sanofi are utilising AI-driven platforms to optimise trial designs, reducing costs and enhancing trial efficiency. Digital therapeutics, which combine AI-powered software with personalised treatment plans and real-time monitoring for conditions like diabetes and mental health disorders.

Beyond research and development, AI is revolutionising commercial activities like evidence generation and management, market access, pricing, sales planning, and tendering in the pharmaceutical sector. Predictive analytics and machine learning algorithms are used to improve supply chain management, predict demand, and boost marketing strategies. Chatbots and virtual assistants, equipped with natural language processing (NLP), are enhancing customer support and patient engagement.

However, as with any disruptive technology, the adoption of AI in the pharmaceutical industry is not without challenges. Data quality, privacy concerns, regulatory hurdles, and the need for robust validation processes are key barriers that must be addressed. Industry leaders are actively collaborating with regulatory bodies and technology partners to establish guidelines and best practices for the responsible and ethical use of AI in healthcare.

The pharmaceutical industry recognises that embracing digitalisation and AI integration is not just a choice but a necessity to stay competitive and deliver innovative solutions that improve patient outcomes. By harnessing the power of these cutting-edge technologies, the industry is poised to accelerate drug development, enhance operational efficiencies, and ultimately contribute to a healthier future for all.



### Supply Chain

#### Macro-economics

In 2023, the pharmaceutical industry faced significant challenges, including geopolitical tensions, supply chain disruptions, evolving regulations, and inflationary pressures, creating uncertainty across the sector.

Global Dynamics & Investor Trends

Despite these obstacles, the industry remains strong, driven by an ageing global population, the shift towards home-based care, and the rising prevalence of chronic diseases. As the industry recovers from the pandemic, strategic priorities have emerged, focusing on restoring growth and enhancing investor confidence.

Pharmaceutical companies are navigating a complex environment, adapting operations and strategies to mitigate risks and capitalise on onnortunities.

Geopolitical conflicts and trade tensions have disrupted supply chains, necessitating a reevaluation of sourcing strategies and supply chain resilience. Regulatory changes, especially in pricing and market access, require agile responses to ensure compliance and profitability.

The industry's long-term prospects are promising, fueled by demographic shifts and the increasing burden of chronic diseases. An ageing global population and a rising middle class in emerging markets drive demand for innovative therapies and preventive healthcare solutions. The trend towards home-based care presents opportunities for developing patient-centric offerings and leveraging digital technologies.

As the industry recovers, companies are reassessing growth strategies, exploring portfolio optimisation, strategic partnerships, and digital transformation initiatives. Attracting and retaining investor confidence remains a priority, with a focus on demonstrating resilience, operational excellence, and a commitment to innovation and sustainable growth.



Macro-economics

#### Supply Chain

Supply Chain

The COVID-19 pandemic exposed vulnerabilities in the pharmaceutical supply chain, causing disruptions and shortages of critical materials, APIs, and finished drugs. To mitigate future risks, the industry recognizes the need for a more resilient and diversified supply chain. According to a PhRMA survey, many pharmaceutical companies are now exploring a mix of specialized suppliers and full-service contract manufacturing organizations (CMOs) to enhance sourcing capabilities. Companies like Pfizer and Merck have partnered with CMOs to outsource the production of complex biologics and small molecule drugs, benefiting from their specialized manufacturing expertise.

Some companies are reducing their supplier base for cost optimisation, while others are diversifying to mitigate risks associated with reliance on a single region or supplier. For instance, Novartis plans to establish a new manufacturing facility in the United States to ensure a stable supply of critical medicines. The primary challenges pricing, and regulatory hurdles associated with offshore sourcing. Intellectual property protection and quality control concerns have prompted some companies to consider shifting manufacturing back to the United States or Europe or establishing in-house production for strategic products.

Broader challenges include workforce shortages in specialized areas like regulatory affairs and rising costs of raw materials and energy. Regulatory agencies such as the FDA and EMA have intensified scrutiny of supply chains, emphasizing robust quality management and transparency. To address these issues, pharmaceutical companies are leveraging digital technologies like blockchain for supply chain traceability, implementing advanced analytics for demand forecasting, and fostering strategic collaborations with academic institutions and government agencies to develop a skilled workforce and promote research in continuous manufacturing and advanced therapeutics.



Macro-economics

Global Dynamics & Investor Trends

The pharmaceutical industry is grappling with the implications of deglobalisation and reshoring trends, affecting various aspects of drug development and manufacturing. The investment landscape in pharmaceuticals is undergoing changes, with fluctuations in mergers and acquisitions, capital raising activities, and research and

development investments across different regions. For instance, in the United States, there has been a noticeable decline in cross-border pharmaceutical M&A deals, as companies reassess their global footprint and focus on domestic operations. Similarly, in Europe, capital raising for early-stage biotech firms has become more challenging, potentially hampering innovation. These unique regional challenges demand rapid adaptation to economic

Global Dynamics & Investor Trends

The COVID-19 pandemic highlighted the critical importance of pharmaceutical products and exposed vulnerabilities in global supply chains for essential medicines and active pharmaceutical ingredients (APIs). This experience has fuelled discussions on supply chain resilience and strategic autonomy in the pharmaceutical sector. Governments and industry leaders are exploring strategies to mitigate supply chain risks, potentially driving shifts towards more regionalised production networks. For example, several countries are incentivising domestic manufacturing of critical drugs and APIs to reduce reliance on foreign suppliers during crises. As the pharmaceutical industry navigates these changes, companies may need to reconfigure their supply chains, manufacturing strategies, and investment priorities to align with the emerging landscape of deglobalisation and reshoring.



#### Market Recovery Post Pandemic

As the healthcare industry recovers from the COVID-19 pandemic, there is an anticipation of increased demand for pharmaceutical products and services. The industry is experiencing a gradual recovery, driven by key trends such as the increasing use of digital health solutions, strategic shifts in drug development, and a focus on sustainability initiatives. Despite economic challenges, the industry's resilience and continuous innovation suggest potential for longterm growth and value creation.

#### **Regulatory Approvals**

Gaining regulatory approvals from agencies like the FDA and EMA can open up significant growth opportunities for pharmaceutical companies in new markets and therapeutic areas.

#### **M&A** Activities

Strategic mergers and acquisitions can strengthen pharmaceutical companies product portfolios, enhance their research capabilities, and create synergies. However, cost of capital and return on investment constraints will weigh on the deal markets.

### Easing of Pressure on Raw Material Costs

Raw material prices for pharmaceutical manufacturing are anticipated to fall in 2023 and remain stable in 2024, primarily driven by improved supply chain conditions increased and production capacity. This could lead to lower manufacturing costs and improved profit margins for pharmaceutical companies.

#### Digital Transformation

Companies investing in digital solutions, such as telemedicine, remote patient monitoring, and AI-driven drug discovery, are poised to improve operational efficiency, enhance patient engagement, and accelerate the drug development process.

#### ESG Strategies

Pharmaceutical companies focusing on sustainability and ESG initiatives, such as responsible sourcing, green manufacturing, and equitable access to medicines, might see increased investor interest and potential consumer preferential bias towards their products.

#### **Innovations and New** Drug Launches

Pharmaceutical companies are investing heavily in research and development, paving the way for the introduction of numerous new drugs and therapies in the coming months. These innovative treatments could address unmet medical needs and drive revenue growth.

#### Expansion in Emerging Markets

With an expanding middle class and improving healthcare infrastructure, emerging markets such as China, India, and Latin America present substantial growth opportunities for pharmaceutical companies to tap into new patient nonulations.

#### Adoption of Advanced Therapies

Increased adoption of novel therapies, such as cell and gene therapies, precision medicine, and targeted treatments, could create significant growth opportunities for pharmaceutical companies at the forefront of these advancements.

#### Conclusion

The year 2024 presents an exhilarating phase for the pharmaceutical industry, marked by a surge in drug development, clinical trials, and regulatory approvals. However, this growth also brings challenges, including complex data management, stringent compliance requirements, and the need for efficient operations. In this dynamic landscape, reliable data and advanced solutions are paramount for pharmaceutical companies to navigate the evolving landscape successfully. Read more ^

Amidst these challenges, Vamstar emerges as a powerful ally, offering a comprehensive suite of AI-powered solutions tailored to the pharmaceutical industry's unique needs. With offerings spanning Tender Orchestration, Pricing Optimisation, Market Intelligence, and Data Synchronisation, Vamstar equips pharmaceutical companies with the tools to thrive in this exciting phase.

Vamstar's AI-driven platform empowers pharmaceutical companies to identify and capitalise on lucrative tender opportunities for clinical trials, drug procurement, and healthcare services. By leveraging advanced algorithms and real-time data, the platform streamlines the tendering process, enabling companies to:

- Proactively identify high-value tenders: Gain visibility into upcoming tenders that align with your product portfolio and target markets.
- Automate tender matching and response generation: Generate comprehensive tender responses with minimal manual effort, saving time and resources.
- Improve win rates: Increase the likelihood of tender success by tailoring responses to specific tender requirements and optimising pricing strategies

Vamstar's Market Intelligence solution provides pharmaceutical companies with a comprehensive understanding of market dynamics, including disease prevalence, treatment landscapes, and regulatory environments. With access to up-to-date market data, including market size, growth trends, competitive landscape, and regulatory updates across multiple countries, pharmaceutical companies can make informed decisions to drive growth. The depth and breadth of insights empower teams with key recommendations to optimize product portfolios, identify value drivers, target the right patient populations, and expand into new markets.

Vamstar's Data Synchronisation solution addresses the challenge of data fragmentation and inconsistency, ensuring that pharmaceutical companies have access to accurate and reliable data from internal and external sources. By integrating data from disparate sources, including clinical trial data, electronic health records, and thirdparty databases, pharmaceutical companies can develop a single source of truth. Vamstar's AI capabilities offer automation ossibilities for data cleansing and validation processes, improving data quality and reliability across the organisation.

Furthermore, the future of the pharmaceutical industry lies in digitalization and seamless customer engagement. Vamstar's E commerce solution empowers pharmaceutical companies to tap into the growing online healthcare market by leveraging automated e-ordering and e-sourcing capabilities for their entire product portfolio. This solution enables efficient and convenient ordering processes for healthcare providers, improving overall operating margins and customer satisfaction.

As the pharmaceutical industry continues to evolve, Vamstar's suite of offerings positions itself as a strategic partner, providing the necessary tools and insights to navigate the complexities of drug development, clinical trials, regulatory compliance, and market dynamics. With Vamstar's support, pharmaceutical companies can embrace this exciting phase with confidence, driving innovation, efficiency, and growth.

### Take the next step

Book a 30 minutes introductory call with our team to discover how our AI solutions can boost your commercialisation efforts.



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