

dhauz.®

IMPACT OF AI ON PRIVATE EQUITY FIRMS

Learn how artificial intelligence tools are transforming the way funds operate, make decisions, and generate value from their investments



DRIVING VALUE CREATION WITH ADVANCED

ANALYTICS IN PRIVATE EQUITY

INTRODUCTION

Private equity firms have evolved over time from pure investors with industry expertise provided mostly from retired senior executives to active operators, industry insiders, deeply involved in the day-to-day of their portfolio companies. In this setting, advanced analytics and artificial intelligence (AI) **can generate incremental value for private equity funds in the range of 15-20% by driving revenue growth, better operating margins, and more efficient capital deployment.**

Data science and AI can generate the common thread across the portfolio, creating common standards and automated processes to help operators identify opportunities for enhanced productivity and top line growth. It can also generate opportunities that are not casually identified without deeply analyzing operational data with advanced tools.

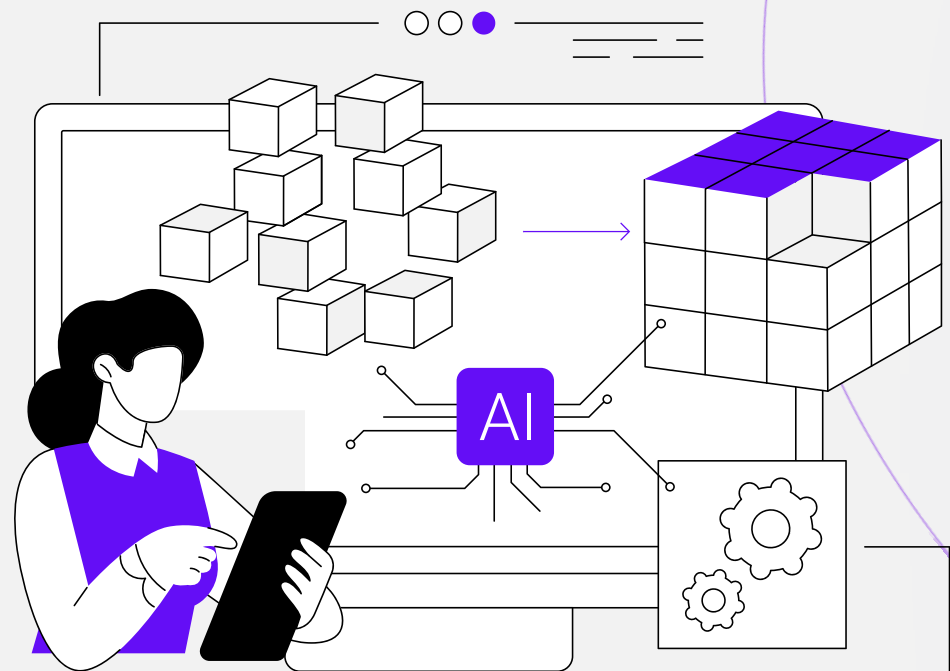
While these solutions can apply to any company, small or large, we believe that **private equity portfolios can benefit the most given three main factors:**



1. value-driven culture.
2. the value that these tools generate versus a minimum investment upfront.
3. the ability to leverage almost identical tools and decision support systems across different companies and industries.

FOCUS ON OPERATIONAL EFFICIENCY

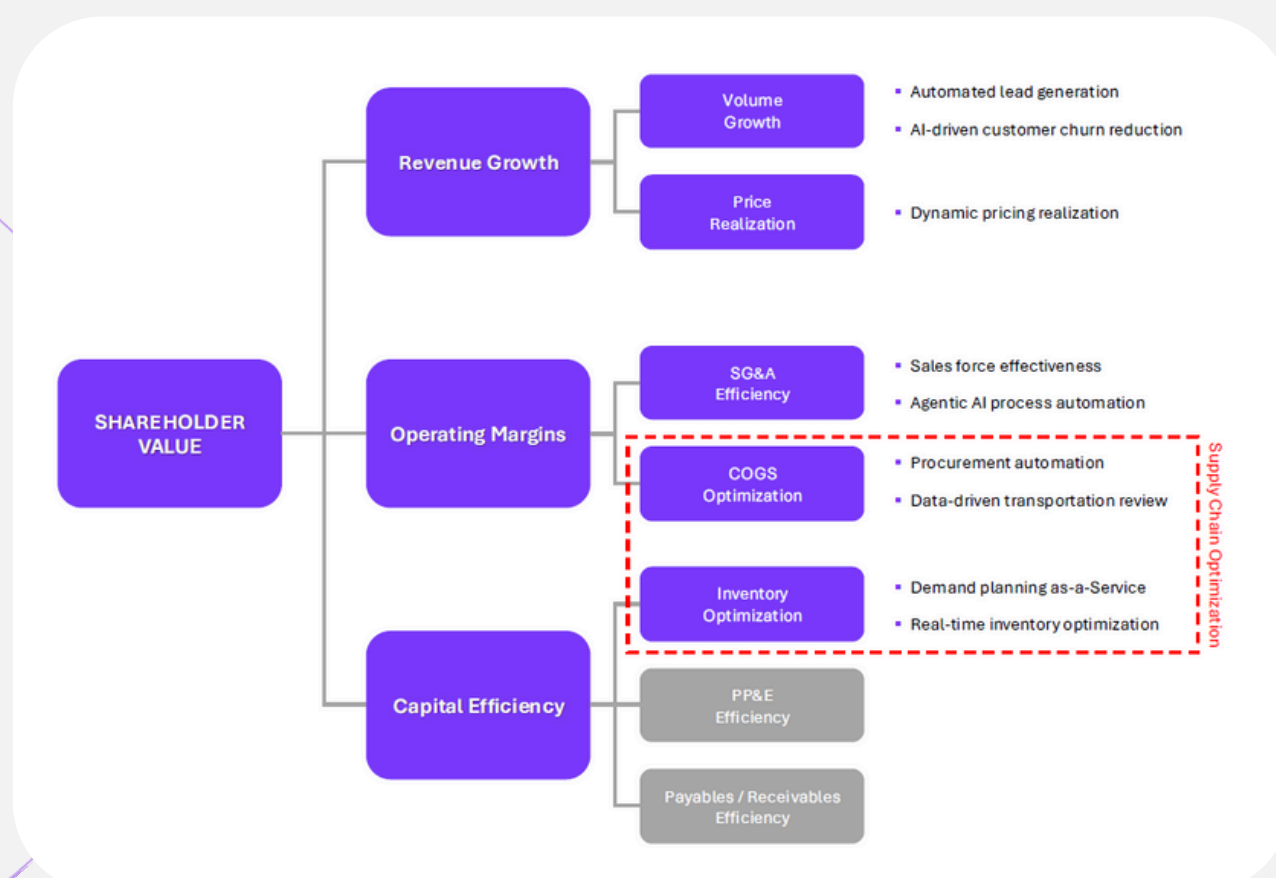
Operational efficiency over time is one of the main levers for value creation. However, continuously and continuously improving productivity is a massive challenge. For a private equity fund, time is of the essence as funds typically **hold portfolio companies for 5 to 7 years, before cashing them out.** There needs to be a plan to drive operational efficiency on day one.



Many portfolio companies require strategic guidance and expertise, besides capital, to grow and scale. Data science and AI can be a catalyst to enhance efficiency, to increase profitability, and to identify new revenue sources. Private equity funds don't have to create a massive, fixed cost structure to drive a program like this, but there are benefits in driving the adoption of common tools and agents across the portfolio. Similarly to GE and Six-Sigma¹, Danaher and the Danaher Business System², private equity funds can champion AI adoption for operational efficiency and standardization to unlock incremental value.

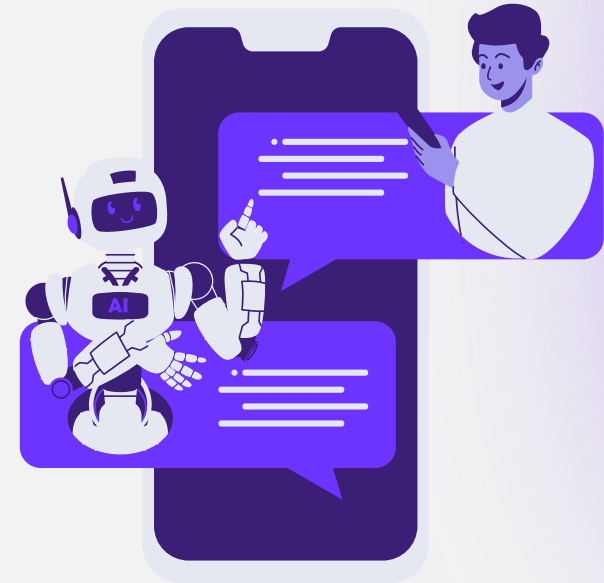
Data science and AI can also play a role during the deal prospecting and evaluation process, being able to shorten evaluation and analysis of prospects and deals, freeing up time for the team to focus on other tasks. On this paper we will solely focus after an investment decision has been made and a company has been added to the portfolio.

To illustrate the potential value creation by adopting advanced analytics and AI decision support systems, **we will use a simple shareholder value tree.**



REVENUE GROWTH

Advanced analytics and artificial intelligence (AI) are revolutionizing the sales landscape by enhancing lead generation, reducing customer churn, and optimizing price realization. By leveraging data-driven insights, companies can identify high-potential leads more accurately.



Advanced analytics and artificial intelligence (AI) are revolutionizing the sales landscape by enhancing lead generation, reducing customer churn, and optimizing price realization. By leveraging data-driven AI algorithms analyze vast amounts of data to uncover patterns and predict which **prospects are most likely to convert, allowing sales teams to focus their efforts on the most promising opportunities.** This targeted approach not only increases the efficiency of lead generation but also improves the overall conversion rate, driving higher sales volumes. For example, a Fortune 500 company generated +60k Marketing Qualified Leads (MQLs), from trade shows, webinars, email and web campaigns, and their website. Only a small fraction of those leads actually were successfully closed by sales reps, typically mid- to low- single digit. If you put aside the branding and educational aspect of Marketing investments, only **converting less than 10% of those leads is a massive waste of Marketing and Sales resources and capital.**



Automation made this process more effective by creating a data-driven lead qualification process and by enriching those leads with internal and external data sources. **Those better qualified MQLs were then prioritized based on pre-defined business rules, and would flow straight to sales reps, via a CRM tool.** There were fewer leads being passed on to sales reps, but with a much higher quality. ROI was less than 12 months and the inside sales team, who was previously responsible for lead qualifications, was redirected to manage and grow a number of small accounts directly.



AI and advanced analytics play a crucial role in understanding customer behavior and identifying early warning signs of dissatisfaction. By continuously monitoring customer interactions and feedback, **AI systems can predict which customers are at risk of churning and suggest proactive measures to retain them.** This might include personalized offers, targeted communication, or tailored support services. These strategies help increase customer loyalty and support future growth within these customer accounts.

For example, a Telecom company was struggling with customer churn and how their NPS scores were not alone providing additional insights on customer satisfaction. Traditionally, only a small number of surveys are answered, **less than 5%, and feedback is tied to past events.** By deploying predictive analytics in a rapid and interactive way, the company developed a model that analyzed NPS data as well as customer interaction and web navigation data. **The model initially had an 83% accuracy predicting customer satisfaction and the likelihood of potential churn.** As an added benefit, model was able to correlate root causes for customer churn, allowing the company to define tangible action plans to prevent it.

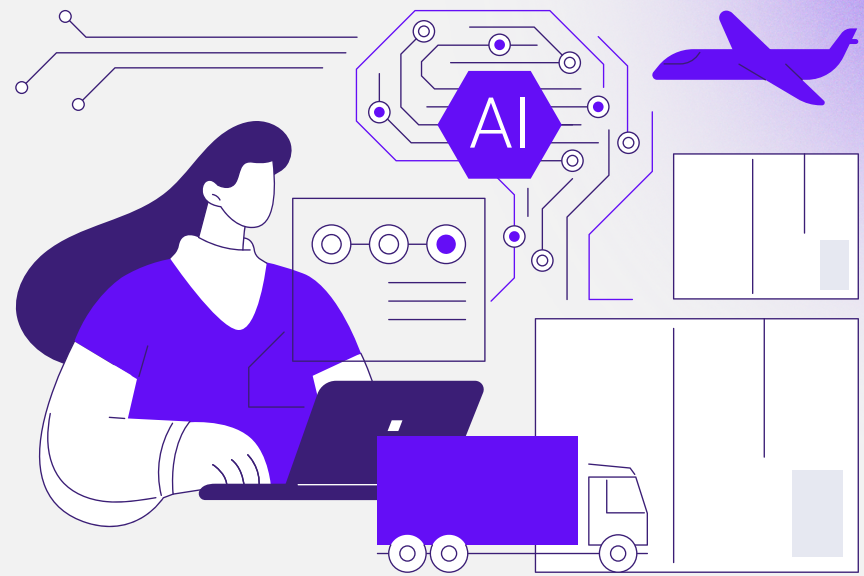
Price realization is another area where AI and advanced analytics can significantly impact sales. By analyzing market trends, competitor pricing, and customer willingness to pay, **AI can recommend optimal pricing strategies that maximize revenue without alienating customers.** This dynamic pricing approach ensures that prices are competitive yet profitable, adapting to market conditions in real-time. CPG and Industrial companies target a 1-3% net price gain yearly.



Companies that have both direct, indirect, and digital selling platforms have struggled to maintain price gains without creating channel conflict. AI and advanced analytics help with price realization by focusing on creating dynamic elasticity curves, reducing leakages, and by analyzing real-time feedback on promotion effectiveness, allowing pricing teams to recalibrate parameters and actions more frequently.

OPERATING MARGINS

Advanced analytics and artificial intelligence (AI) are pivotal in enhancing operating margins across various business functions. In sales force effectiveness, AI-driven tools can significantly boost productivity by automating routine tasks such as lead qualification, follow-ups, and data entry. This allows sales teams to focus on high-value activities like closing deals and building customer relationships. AI can also provide real-time insights into sales performance, helping managers identify areas for improvement and optimize stra



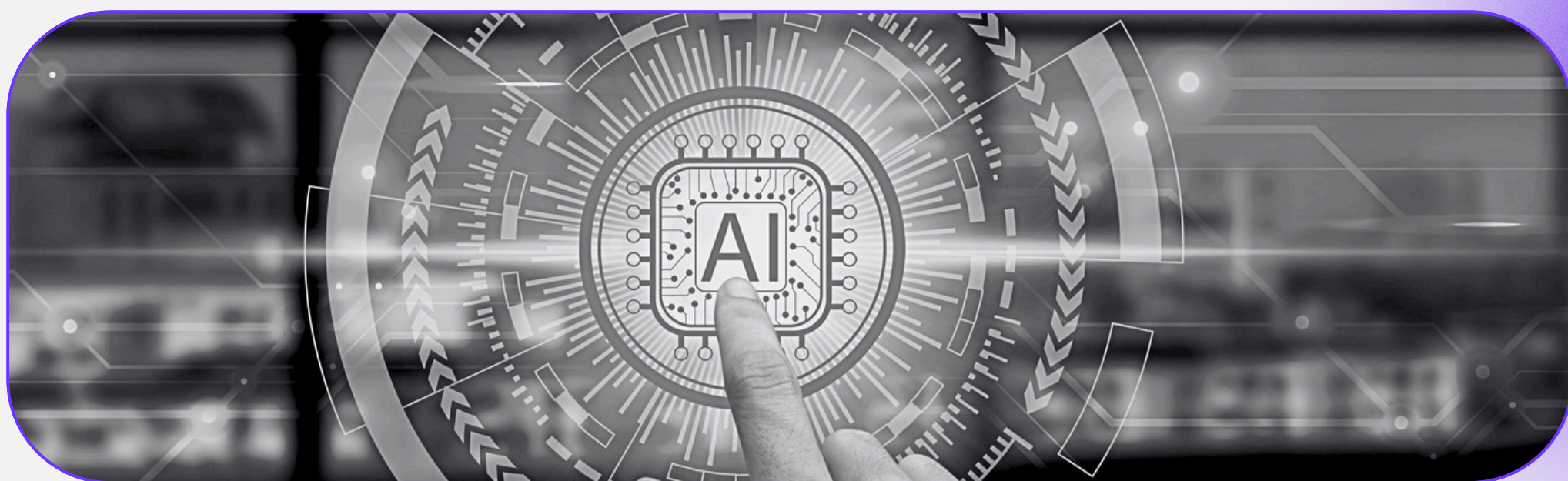
By leveraging predictive analytics, companies can forecast sales trends and adjust their tactics, accordingly, ensuring that resources are allocated efficiently and effectively. For example, a pharmaceutical company was challenged with how to increase sales for a new medicine targeting a rare disease. These drugs were not commonly prescribed and required a specific process due to Legal and Regulatory requirements.



The Pharma company developed a machine learning model for mapping a set of physicians who were more likely to prescribe the new product. The model increased the base of prescribers by identifying physicians who were prescribing less than average or didn't prescribe at all, but who had similar characteristics to other physicians considered as "high prescribers". Sales reps were then provided a list of physicians with targeted Marketing content to communicate the value proposition of the new drug. The model also **helped in defining how to make the interaction more successful, and the company saw a 15% increase in the number of doctors prescribing the new medicine**

In back-office process automation, AI transforms operations in Finance, Legal, and HR departments by automating repetitive tasks, enhancing accuracy, and potentially reducing fraud. For instance, AI-powered systems can handle data entry, invoice processing, and payroll calculations with minimal human intervention, reducing errors and freeing up staff to focus on value added tasks or strategic initiatives. In the legal domain, **AI can assist with contract analysis and compliance monitoring, ensuring that legal processes are streamlined and risk is minimized.** Similarly, HR departments can benefit from AI in recruitment, employee onboarding, and performance management, leading to more efficient and effective human resource operations.

A prime target for automation is the financial closing process. Normally a process that requires extensive human intervention can be streamlined from days to a few hours with the support of advanced AI and ML tools. Automation can make it easier to ingest data from different sources, to enforce business rules for accounting are followed, to flag exceptions that require manual intervention, to actually generating timely insights to support senior leaders.



Agentic AI in procurement is another area where advanced analytics and AI can drive significant improvements. By automating decision-making processes and leveraging complex datasets, agentic AI can optimize inventory levels, automate order fulfillment, and identify supply chain inefficiencies. This leads to faster procurement cycles, reduced costs, and improved supplier performance. AI agents can also enforce procurement policies automatically, ensuring compliance and cost control without the need for constant human oversight. **This strategic use of AI in procurement helps businesses navigate economic challenges and maintain a competitive edge.**



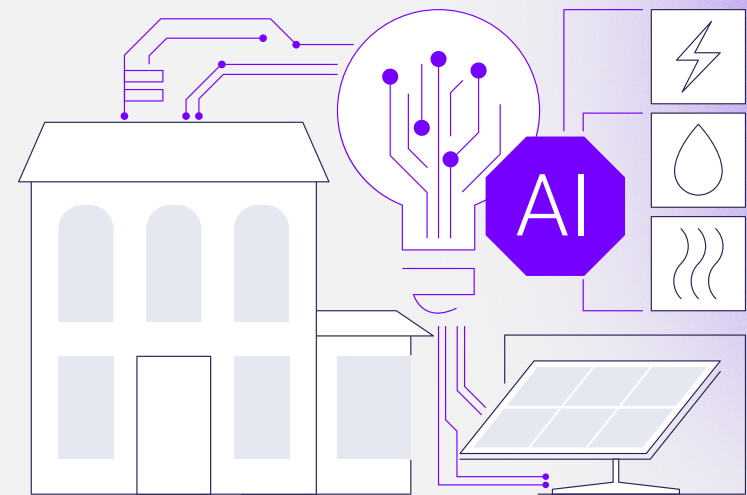
Optimization of fulfillment costs is crucial for maintaining healthy operating margins, and AI plays a key role here as well. **AI-driven systems can analyze vast amounts of data to forecast demand accurately, manage inventory levels, and optimize transportation routes.** This not only reduces transportation and warehousing costs but also minimizes waste and enhances overall efficiency. By streamlining logistics operations and improving decision-making, AI helps businesses respond swiftly to market changes and maintain operational excellence. To optimize transportation costs, companies are taking a more holistic view of their routes by creating a command center.

This command center centralizes the command and control of transportation services. This includes capturing transportation requests, optimizing routing, scheduling, monitoring vehicle and cargo movements, and managing risks and payments. The command center aims to **enhance efficiency, visibility, and continuous improvement in transportation management.** Automation and advanced analytics are enablers, supporting the team making the decisions, minimizing risks and delays, and reporting on actual cost reductions. A global beverage company that fully implemented this concept realized a 8-9% reduction on its total freight cost.

CAPITAL EFFICIENCY

Advanced analytics and artificial intelligence (AI) are transforming inventory management by enabling data-driven demand forecasting and optimizing stock levels. AI algorithms analyze historical sales data, market trends, seasonal patterns, and real-time information to predict future demand with high accuracy. This allows businesses to maintain optimal inventory levels, preventing both overstock and stockouts. By leveraging AI, companies can respond swiftly to changes in consumer behavior and external factors, ensuring that inventory is aligned with actual demand.

Furthermore, advanced analytics support inventory management by providing actionable insights into stock movement and warehouse operations. AI-powered systems can track inventory in real-time, automate replenishment processes, and optimize storage space 3. This leads to reduced operational costs, minimized waste, and improved efficiency. In the past, in order to improve demand forecast, companies would acquire and implement a specialized tool. This was an expensive, long, with questionable ROI.



One of the main complaints is the fact that these tools were built to address a huge number of companies but failed to be the perfect tool for every company. Now, companies are leveraging a library of algorithms hosted in the cloud that are designed to their specific needs and portfolio. **This SaaS model allows companies to move faster and have more flexibility to adjust models and calibrate accuracy if needed.** This approach eliminates the need for a Capex investment upfront, and companies pay a cost associated with the number of DFUs and how many times they want to run their demand forecast process in a month. Coupled with advanced analytical tools to support inventory optimization across the portfolio, **companies have realized a 12-15% reduction in their total inventory in monetary terms.**

POTENTIAL BENEFITS

Most of these tools and decision support systems can be plugged in on-demand from a central repository and/or using the right ecosystem. After an initial investment to develop these tools, **deployment only requires 2-3 weeks of set-up and calibration.**

<p>REVENUE GROWTH</p> <ul style="list-style-type: none"> Automated lead generation AI-driven customer churn reduction Dynamic pricing realization 	<p>AI / ML automation to qualify and prioritize new leads for Sales teams via CRM</p> <p>RPA and agentic AI analyzing NPS scores and actions to increase customer retention</p> <p>ML algorithms and models to gain insights and AI to analyze large amounts of data</p>	<p>6 to 8p.p. sales increase</p> <p>(double digit growth in less mature markets or territories)</p>	<ul style="list-style-type: none"> Lead qualification with internal + external intel AI driven lead prioritization feeding CRM tools Customer personalization driven by data Automated and self-serve customer interactions Analytics to map customer churn root causes Predictive analytics to forecast NPS / Churn ML driven elasticity curves per product AI driven pricing analytics to drive revenue Root cause analysis on leakages / discounts
<p>OPERATING GROWTH</p> <ul style="list-style-type: none"> Sales force effectiveness Agentic AI process automation Procurement automation Data-driven transportation review 	<p>Advanced analytics to define NBA / NBO for reps to maximize conversion</p> <p>RPA and agentic AI for Financial closing, Legal, HR, and back-office processes</p> <p>AI driven automated bidding processes for approved vendors (RFI to RFQ)</p> <p>Analytics driving fleet productivity while reducing waste and fraud risk</p>	<p>4 to 6p.p. operational cost reduction</p> <p>(results will vary depending on the industry and how mature are their processes and technology)</p>	<ul style="list-style-type: none"> ML model for mapping potential new customers Predefined set of actions, including content Train reps on the tool and CRM interface Identify desired business outcomes Develop tools and agentic AIs to support teams QA/QC tests, train teams and deploy tools Define boundaries for agentic AI scope Create knowledge base and templates (RFI, RFQ) Measure and monitor results Design command center to drive productivity Implement analytics and AI tools for monitoring Use analytics to drive cost down
<p>CAPITAL EFFICIENCY</p> <ul style="list-style-type: none"> Demand planning as-a-Service Real-time inventory optimization 	<p>Cloud-hosted algorithm library that can be used on-demand with minimum calibration</p> <p>Predictive analytics and RPAs can digest large data amounts supporting decision making</p>	<p>12 to 15p.p. inventory reduction</p> <p>(better demand forecast and optimized on-hand inventory holding policy per product category)</p>	<ul style="list-style-type: none"> PoC to calibrate algorithms and data ingestion Train team in using the models and outputs Monthly / quarterly reviews to adjust adherence Aggregate data sources (ingestion / data lake) Calibrate algorithms for categories / DFUs Predict stockouts with +80% accuracy

Most of these tools and decision support systems can be plugged in on-demand from a central repository. Driving standardization across portfolio companies involves leveraging AI-powered tools to harmonize processes, systems, and reporting standards. By automating repetitive tasks, **AI ensures consistency across operations, enhancing efficiency and reducing errors.** For example, AI can create unified data reporting dashboards that provide a cohesive view of performance across all portfolio companies.

Additionally, AI streamlines operations in areas such as HR processes, procurement, and compliance, further contributing to operational uniformity and effectiveness and/or using the right ecosystem. **After an initial investment to develop these tools, deployment only requires 2-3 weeks of set-up and calibration.**



KEY CONSIDERATIONS FOR ADOPTION

Key considerations for adoption include addressing challenges specific to private equity firms, such as overcoming integration issues with legacy systems across portfolio companies, managing stakeholder resistance to AI adoption and operational changes, and ensuring data privacy compliance and ethical AI use. **To facilitate adoption, firms can implement pilot programs within select portfolio companies and collaborate with external AI and data analytics providers for expertise and tools.**

Another possibility is to create an ecosystem of specialized companies that will build and maintain those tools and models. These companies could be compensated on a risk-sharing model with a mix of fixed and variable payments based on results, instead of the traditional method of time and materials. It also allows for a continuous involvement and support for a longer period of time, supporting teams **with training and change management support.**

ABOUT dhauz

dhauz is a global technology and professional services company **specializing in data-driven consulting, advanced analytics, and artificial intelligence (AI) solutions.** The company is passionate about technology and leverages deep expertise in data science to help solve some of the toughest business challenges. dhauz collaborates with top analytical minds to deliver cutting-edge solutions that transform business processes and drive value.



The company's services are designed to amplify human intelligence and enhance decision-making across various business functions. dhauz capabilities in predictive, prescriptive, and descriptive analytics enable businesses to forecast future outcomes, determine optimal decisions, and translate past behaviors into actionable insights. The company is committed to helping organizations navigate complex data landscapes and achieve strategic objectives such as margin gain and cost reduction. By integrating advanced analytics and AI into business operations, **dhauz empowers clients to make informed decisions and capture significant value from their data.**

dhauz®

REFERENCES:

1 General Electric (GE) is renowned for its successful implementation of Six Sigma, a data-driven methodology aimed at improving quality by eliminating defects and variability in processes. Here's a detailed look at how GE leveraged Six Sigma to drive operational excellence and increase productivity. Over the first five years of Six Sigma implementation, GE estimated benefits on the order of **\$10 billion**. By 2000, GE had reported annual savings of over **\$2.5 billion**.

2 The Danaher Business System (DBS) is a comprehensive framework that Danaher Corporation uses to drive productivity, profitability, and continuous improvement across its diverse portfolio of companies.