WHY LOGISTICS COMPANIES WITHOUT DATA ANALYTICS WILL FALL BEHIND

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Abstract

In today's logistics industry, data analytics is no longer just a supporting tool. It has become a core competitive capability. Companies that do not integrate advanced data analytics into their daily operations risk losing market share, operational efficiency and, eventually, long-term viability. This article examines why data analytics matters so much in logistics, looks at the measurable advantages achieved by early adopters, and highlights the risks faced by organisations that still rely mainly on traditional decision-making methods. Drawing on recent industry reports, market forecasts and local Uzbek cases (primarily Uzum and Biznes Aziya), the paper argues that over the next five years the gap between data-driven and non-data-driven logistics firms will continue to widen. The conclusion is straightforward: investment in data analytics is no longer optional. It is essential for survival and growth in an increasingly volatile and technology-driven supply chain environment.

Keywords: data analytics, logistics, competitive advantage, supply chain, digital transformation, predictive analytics, route optimisation, Uzbekistan, Uzum, delivery speed, demand forecasting, logistics network.

1. Introduction

Logistics has always been a complex industry. Moving goods efficiently across regions requires careful coordination of transportation, warehousing, inventory and customer expectations. In recent years this complexity has grown sharply because of the rapid expansion of e-commerce, geopolitical disruptions, rising customer demands for speed and transparency, and continuous pressure to cut costs and emissions.

Against this background, data analytics has become one of the most powerful tools available to logistics companies. Organisations that systematically collect, process and analyse operational data can make faster and more accurate decisions. Those that do not are finding themselves at a growing disadvantage.

The purpose of this article is to examine why logistics companies that neglect data analytics are likely to fall behind in the coming years. The discussion focuses on current industry trends, documented performance gaps between data-driven and traditional operators, and the practical consequences of delayed digital transformation. The analysis is particularly relevant for logistics firms in emerging markets, including Uzbekistan, where the pace of digital adoption will strongly influence future competitiveness. Local examples such as Uzum's logistics network and Biznes Aziya's adoption of a modern transportation management system show that data-driven approaches are already delivering measurable results in the domestic market.

2. Methods

This study uses a qualitative, literature-based approach consistent with the IMRAD structure common in academic review articles. Secondary data were collected from industry reports, peer-reviewed sources, company press releases and verified case documentation published between 2016 and 2026.

The main sources of evidence include the annual State of Logistics Reports produced by the Council of Supply Chain Management Professionals (CSCMP) together with Kearney and Penske Logistics, McKinsey analyses on advanced analytics in supply chains, market research reports from Mordor Intelligence, Emergen Research and Future Market Insights, Uzum corporate press releases and

operational disclosures, documentation of the AXELOT TMS implementation at Biznes Aziya, and information on local digital logistics initiatives in Uzbekistan.

The analytical method is a thematic synthesis of findings related to cost reduction, operational efficiency, sustainability impact and competitive positioning. A comparative case approach is used to contrast data-driven logistics organisations operating in Uzbekistan (Uzum and Biznes Aziya) with the typical performance profile of traditional operators that still have limited analytical capabilities. Quantitative indicators reported in the literature and company disclosures are presented as published, without primary re-measurement.

3. Results

3.1. Changing Nature of Competitive Advantage

For many decades competitive advantage in logistics was determined mainly by physical assets: the size of the fleet, the location of warehouses and the density of the transportation network. These factors remain important, but their relative weight has declined.

Recent industry analyses show that advantage is shifting toward intelligence and adaptability. According to Kearney's State of Logistics reports, competitive strength is increasingly linked to the ability to sense changes quickly, make better decisions under uncertainty and reconfigure resources faster than competitors. In parcel and last-mile operations, advanced routing systems now evaluate large numbers of variables per shipment. In such an environment network scale alone is no longer enough. This shift is already visible in Uzbekistan's fast-growing e-commerce logistics sector.

3.2. Documented Performance Gaps

Empirical evidence consistently shows that logistics companies using advanced analytics achieve better results. McKinsey research indicates that organisations deploying advanced analytics typically achieve transportation cost reductions in the range of 10–20 percent, together with meaningful improvements in inventory management and network efficiency. These gains directly affect profitability and market position.

Market data reinforce the trend. The global big data in logistics market was estimated at roughly USD 6–8.5 billion in 2025 and is projected to grow at compound annual rates of approximately 17–21 percent through the early 2030s. The broader transportation and supply chain analytics markets are expanding at a similar pace, driven by demand for real-time visibility, predictive maintenance and dynamic route optimisation. In Uzbekistan, local digital solution providers report logistics cost reductions of 20–30 percent when modern WMS and TMS platforms with analytics capabilities are implemented.

3.3. Key Application Areas

Several operational domains illustrate the practical impact of data analytics. In route and fleet optimisation, machine learning models can take into account traffic patterns, weather conditions, vehicle capacity and delivery time windows, reducing travel distances by 10–30 percent compared with traditional heuristic methods. Predictive analytics improves demand forecasting accuracy and helps companies avoid both stockouts and excess inventory. Predictive maintenance based on sensor data reduces unplanned downtime. Real-time visibility platforms make it possible to detect disruptions earlier, while optimised routing contributes to lower fuel consumption and emissions.

Local providers in Uzbekistan, such as APKO DIGITALY and specialised TMS platforms, report that the integration of AI, IoT, GPS/GLONASS and geoanalytics supports demand forecasting, route optimisation and reduced downtime. Documented business outcomes include 20–30 percent reductions in logistics costs and improvements in delivery speed and accuracy.

3.4. Comparative Case Evidence – Local Examples

Uzum, Uzbekistan's leading digital ecosystem and the country's first technology unicorn, has built one of the most advanced domestic logistics networks in Central Asia. Instead of relying only on third-party carriers, the company developed its own distribution system, warehouses, fleet and an extensive network of pickup points. By 2025–2026 Uzum operated more than 112,000 square metres of warehouse and fulfilment space and over 1,500 pickup points across approximately 450 cities, towns and villages.

This infrastructure supports same-day delivery in Tashkent and next-day delivery across the country. The platform processes more than 200,000 orders per day and continues to expand capacity.

Uzum invests actively in data analytics and IT systems that support its logistics operations. The company recruits specialists for Data Analytics roles focused on Warehouse Management Systems (WMS). The technology stack includes Python, SQL (ClickHouse and PostgreSQL), Airflow, Superset and Grafana. Machine-learning models are used across the broader ecosystem for risk management, pricing and personalisation; similar data-driven methods underpin warehouse productivity, inventory control and delivery performance. Public disclosures indicate that the company has invested more than USD 500 million in infrastructure, with further hundreds of millions planned for logistics and IT expansion, including new sorting centres and regional cross-docking facilities in nine cities.

A second local example is Biznes Aziya, one of Uzbekistan's largest distributors. The company faced the practical limits of manual planning for roughly 1,000 daily transport requests from its Tashkent warehouse. It implemented the AXELOT TMS X4 transportation management system together with the SCAP optimisation module. As a result, planning time fell from several hours to 15–20 minutes. Routes are now generated automatically, taking into account costs across the supply chain, LIFO principles, customer time windows and other operational constraints. The system also shows immediately how much hired transport is needed, which improves resource utilisation and removes earlier bottlenecks that limited cargo volumes.

By contrast, many traditional and mid-sized logistics operators in Uzbekistan and the wider region still rely heavily on manual planning, driver experience, spreadsheets and fragmented legacy systems. A significant share of firms continue to handle large parts of their processes with limited system integration. These organisations typically face higher fuel and labour costs, slower responses to disruptions, less accurate delivery estimates and weaker ability to meet rising customer expectations for visibility and speed.

Table 1. Comparison of data-driven and traditional logistics approaches (local focus)

Aspect	Data-Driven (Uzum / Biznes Aziya)	Traditional Company without Advanced Analytics
Route / trip planning	TMS and AI-based optimisation; planning reduced to 15–20 minutes (Biznes Aziya); data-driven WMS at Uzum	Manual planning, driver experience, basic GPS or spreadsheets
Network scale and coverage	Uzum: more than 1,500 pickup points in about 450 locations; next-day delivery nationwide; own warehouses exceeding 112,000 m2	Limited own network; heavier reliance on third parties or fragmented coverage
Order and shipment volume	Uzum: more than 200,000 orders per day and growing; Biznes Aziya: about 1,000 daily transport requests handled with automated planning	Lower throughput; capacity limited by manual processes
Planning efficiency	Sharp reduction in planning time; automatic calculation of hired transport needs	Hours of manual work; shortages often discovered late in the day
Cost and resource impact	Lower unit logistics costs through denser pickup-point networks, optimised routes and analytics; local reports of 20–30 percent cost reductions with modern TMS/WMS	Persistently higher operating costs (fuel, labour, under-utilised assets)
Data and technology stack	WMS analytics (Python, SQL, Airflow, Superset/Grafana); machine-learning models; TMS	Limited or no advanced analytics; heavy use of paper and Excel

	optimisation modules	
Response to disruptions	Real-time visibility and dynamic re-planning capability	Reactive and often delayed
Customer visibility and ETAs	Higher accuracy, proactive updates, dense pickup-point network	Limited real-time information
Competitive position	Strengthening over time through national-scale logistics infrastructure and continuous investment	Gradual erosion of market share and margins relative to more digital competitors

The table shows that the advantages of data analytics are concrete. They appear in operational scale, planning speed, cost control and service quality, and these advantages accumulate over time. Local companies that have invested in these capabilities are already pulling ahead of operators that still depend mainly on experience and fragmented tools.

4. Discussion

4.1. Risks of Falling Behind

Logistics firms that postpone investment in data analytics face several related risks. First, their cost structures become less competitive. Without continuous optimisation, fuel, labour and inventory expenses remain higher than those of data-driven peers. Second, service quality falls behind the market. Customers increasingly expect accurate delivery windows, real-time tracking and proactive communication. Companies that cannot provide these services lose contracts to more digitally mature competitors.

Third, talent and partnership opportunities diminish. As the industry evolves, skilled professionals and technology partners tend to prefer organisations that already have modern data infrastructure. Fourth, strategic flexibility decreases. In an environment of frequent disruptions, the ability to run rapid scenario analyses and adjust plans becomes critical. Organisations without analytical tools struggle to adapt quickly. Over time these disadvantages can lead to a gradual loss of market share.

In the Uzbek context these risks are amplified by the rapid expansion of e-commerce platforms such as Uzum, which set new benchmarks for delivery speed, coverage and transparency. Traditional operators that cannot match these service levels face growing pressure on both B2C and B2B contracts.

4.2. Outlook for the Next Five Years

Looking ahead to 2030–2031, several trends are expected to increase the importance of data analytics in logistics. The volume and variety of data generated by IoT devices, connected vehicles and digital platforms will continue to grow. Companies that can turn this data into actionable insights will gain further advantage. At the same time, artificial intelligence and machine learning applications are moving from pilot projects into large-scale operational use. Early commercial results already show measurable returns in high-volume workflows.

Market forecasts for supply chain and transportation analytics consistently project strong double-digit growth. This expansion reflects both rising demand and the recognition that analytics is becoming a baseline requirement rather than a differentiator. For logistics companies in Uzbekistan, especially small and medium-sized enterprises, the message is clear: waiting for technology costs to fall or for competitors to move first is a high-risk strategy. The cost of delayed adoption is likely to exceed the cost of timely investment. Local success stories – Uzum's national logistics platform and Biznes Aziya's TMS-driven planning improvements – show that substantial benefits are already attainable within the domestic market.

5. Conclusion

Data analytics is no longer a peripheral technology in logistics. It has become a central factor in operational efficiency, service quality and competitive position. Companies that systematically use data to optimise routes, forecast demand, manage inventory and respond to disruptions are building durable advantages. Those that continue to rely mainly on experience and traditional planning methods risk falling permanently behind.

The evidence from recent industry reports, market analyses and documented local cases such as Uzum's logistics network and Biznes Aziya's TMS implementation is consistent: the performance gap

between data-driven and non-data-driven logistics organisations is already visible and is expected to widen over the next five years. For logistics firms in Uzbekistan that seek long-term sustainability and growth, investing in data analytics capabilities is not merely advisable – it is essential.

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