FLEET SOFTWARE IN 2024: BUYER INSIGHTS, NEEDS, AND PAIN POINTS

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EXECUTIVE SUMMARY

Effective fleet management underpins a company's logistics, but it is an area that is fraught with complexity and challenges. On a daily basis, fleet managers must factor in a multitude of variables when planning optimal routes and operations, all while wrestling with broader macroeconomic challenges such as driver shortages, fuel cost fluctuations, shipping delays, and regulatory pressure.

To meet these challenges head on, fleet managers have increasingly digitized their operations, and continue to invest heavily in fleet management solutions. These solutions are the foundation used to create optimal fleet operations, providing centralized data aggregation that enables better decision-making and analysis to improve operational efficiency.

Investment in fleet management solutions has continued to grow, both in scale and functionality. In a recent survey of more than 300 fleet software decision makers conducted by ABI Research, HERE Technologies, and Amazon Web Services (AWS), 82.4% of respondents across North America, Europe, the Middle East & Africa, and Asia-Pacific reported that less than 50% of their fleet

84%

HAVE OR ARE DEVELOPING A DIGITAL TRANSFORMATION STRATEGY FOR THEIR FLEET OPERATIONS

and shipment tracking is manual documentation (paper logs, spreadsheets, etc.), with 54.7% now having less than 30% done manually. As shown in Chart 1, almost ¾ of respondents have a digital transformation strategy in place, with an additional 18.3% having already digitized most of their fleet operations.

While solutions are becoming ubiquitous, not all are created equal. Many fleet managers still lack the necessary resources to effectively overcome transport management challenges and require solutions that can not only track assets, but also optimize routing, develop efficiency, maximize asset utilization, and ensure regulatory compliance.

Reading this whitepaper will:

- Cover key findings from ABI Research, commissioned by HERE Technologies and AWS, from a global survey of fleet managers and operators.

- Provide an overview of the most pertinent challenges facing fleet managers.

- Assess the fleet-based Key Performance Indicators (KPIs) that matter most to companies.

- Identify how fleet management solutions should and can help tackle challenges and maximize fleet capabilities.

- Discuss how mapping technology and location data solutions are helping fleet managers overcome these challenges.

- Help understand the key considerations to best implement fleet management solutions.
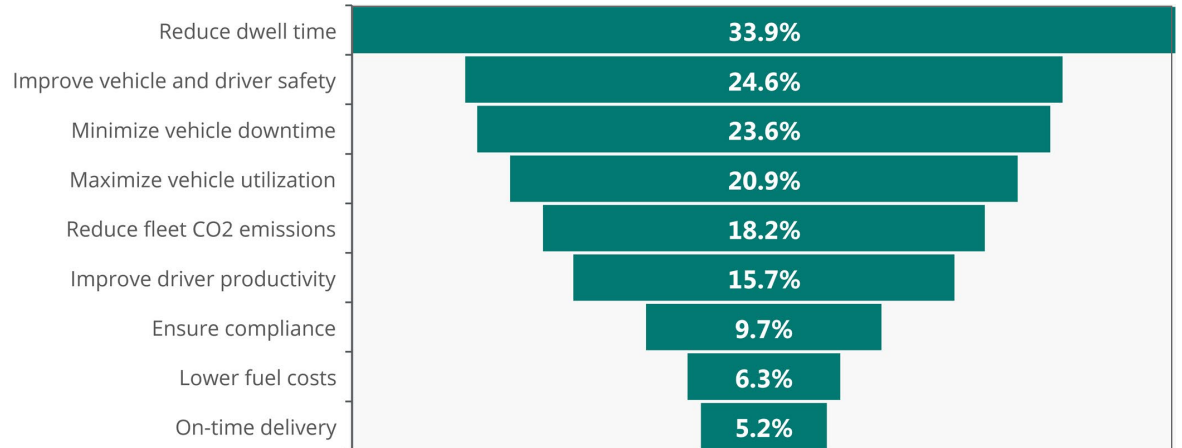
CHALLENGES FACING FLEET MANAGERS TODAY

MAXIMIZING VEHICLE USAGE AND AVAILABLE ASSETS

While the availability of truck drivers has declined, demand for truck transport has only continued to increase. These two opposing forces have widened the gap between an optimal level of fleet supply and transport demand, in turn creating a greater need to maximize available labor and vehicle capacity.

When a truck is stuck in traffic, delayed at a port or yard, parked due to lack of driver hours, or out of service and in need of maintenance, the impact on service levels and broader operations can be significant.

Through the survey, respondents reported vehicle utilization-related KPIs as not being met well, or not being met at all more than any other KPI tested, as shown in Chart 1. This is an alarming finding when considering how vehicle downtime can have a knock-on effect on other KPIs.

KPI	Percentage
Reduce dwell time	33.9%
Improve vehicle and driver safety	24.6%
Minimize vehicle downtime	23.6%
Maximize vehicle utilization	20.9%
Reduce fleet CO2 emissions	18.2%
Improve driver productivity	15.7%
Ensure compliance	9.7%
Lower fuel costs	6.3%
On-time delivery	5.2%

Q: What are the fleet management KPIs you are tracking and rank how well you are meeting those KPIs?
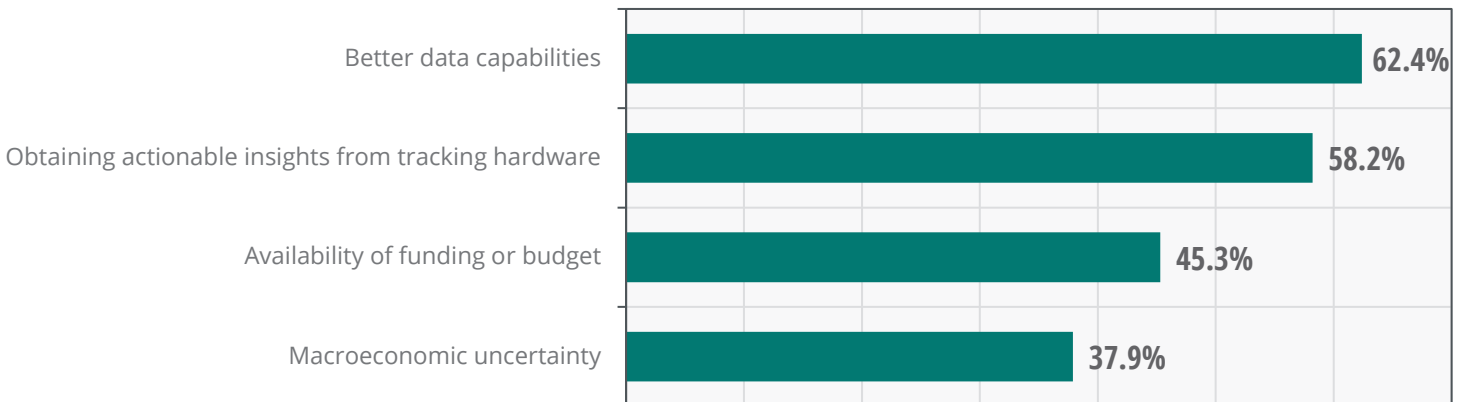
(Source: ABI Research)

GETTING VALUE OUT OF AVAILABLE DATA

Given the continued rise in asset tracking technology, companies have a significant amount of data at their disposal. Implementation of OEM telematics devices, aftermarket telematics solutions, Internet of Things (IoT) devices, and Transport Management Systems (TMSs), to name a few, has created a collection of point solutions that rarely work in sync or consolidate into one platform. Data availability is no longer an issue, but the capability to leverage those data and realize their potential is a challenge that many organizations face.

In assessing companies' main barriers to achieving visibility, "better data capabilities" and "obtaining actionable insights from tracking hardware" were ranked by survey respondents as the top two barriers to achieving supply chain and fleet visibility, as shown in Chart 2. Data enables visibility, but to achieve this, the sea of data available must be processed, organized, and conveyed effectively through software solutions.

Chart 2: **Barriers to Achieving Supply Chain Visibility**

Barrier	Percentage
Better data capabilities	62.4%
Obtaining actionable insights from tracking hardware	58.2%
Availability of funding or budget	45.3%
Macroeconomic uncertainty	37.9%

Q: Which of the following challenges, in order of priority, do you believe your organization has to overcome to achieve supply chain visibility and fleet management?

(Source: ABI Research)

Telematics data — Software/cloud solution — Human interfaces & actionable insights
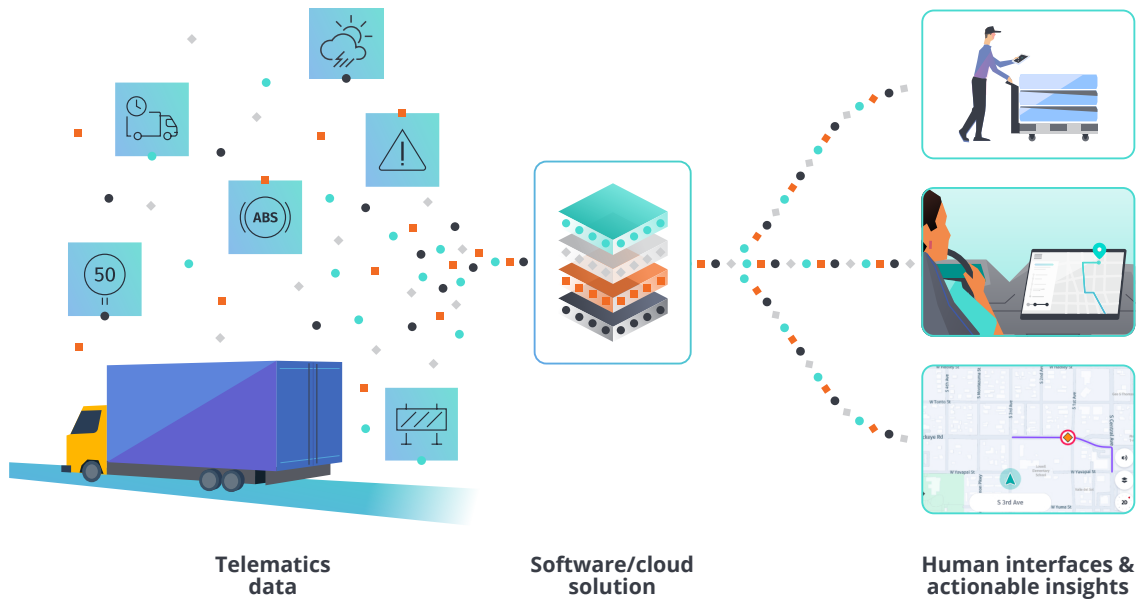
INCREASING REVENUE AND OPERATIONAL EFFICIENCY

While a relatively obvious goal, increasing revenue and improving operational efficiency remain core challenges for all fleet managers. When asked to rank the top investment drivers in fleet technologies, 55% of respondents ranked "increasing revenue" and 52.1% ranked "improving operational efficiency" as one of their top 2 drivers.

Inflationary environments further exacerbate this challenge. Geopolitical events and macroeconomic pressures cause an increase in the base cost of products, putting pressure on logistics operations to reduce its share of overall cost to maintain the final price for consumers, as represented in Figure 1.

Figure 1: **The Impact on Logistics Costs as the Raw Cost of Goods Increases to Maintain Final Price for the Consumer**

(Source: ABI Research)
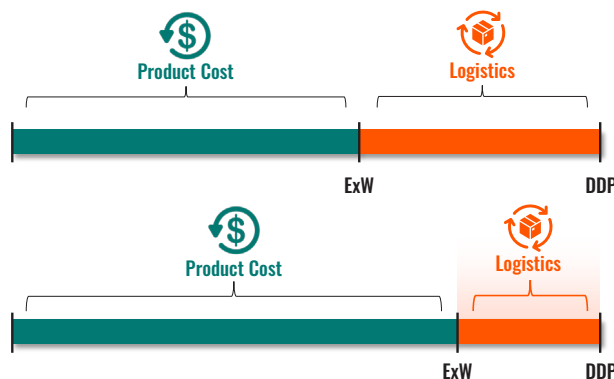
Given that businesses have little control over the raw cost of goods, logistics operations must be streamlined and find efficiencies to ensure profitability is maintained or even achieved.

MEETING INTERNAL SUSTAINABILITY GOALS AND REGULATORY REQUIREMENTS

Sustainability is now becoming a driving force behind operational decision-making, rather than a nice to have. Whether company-wide, or fleet-specific, companies lean heavily on their fleets to achieve their sustainability targets and adhere to growing regulation.

Figure 2: Company-Wide versus Fleet-Specific Sustainability Goals

(Source: ABI Research)

34%
REPORT TRANSPORT-SPECIFIC SUSTAINABILITY GOALS

50%
OF RESPONDENTS REPORT COMPANY-WIDE SUSTAINABILITY GOALS

The obvious step is to electrify fleets, but given current infrastructure challenges and cost concerns, this method is still some time away. When asked about timelines for adopting Electric Vehicles (EVs) for fleets, 34.3% of respondents plan to adopt EVs in 3 to 4 years, while 42.4% of respondents do not plan to adopt them for another 5 to 6 years, as displayed in Chart 3.

Chart 3: Timeline for Adopting EVs
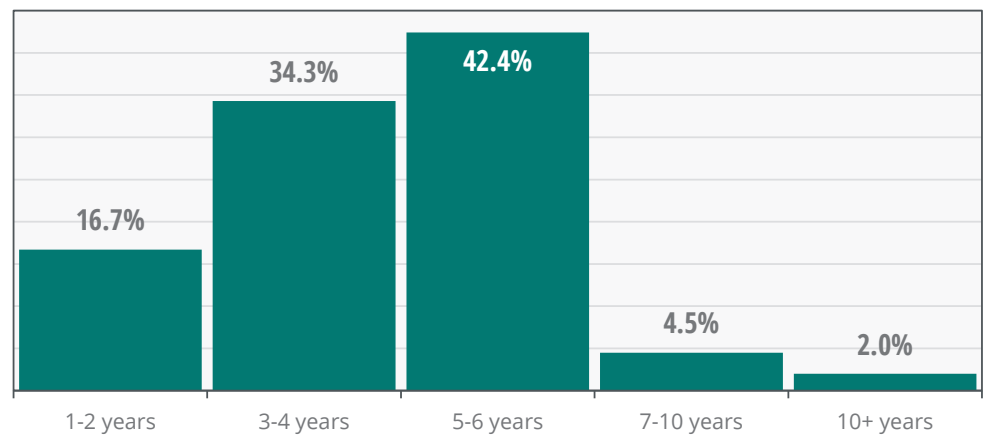
Q: If you are planning to integrate Electric Vehicles (EVs) into your fleet, what is your timeline for doing so?

(Source: ABI Research)

EVs are not a viable short-term option, so fleet managers must turn to finding and implementing efficiencies with the assets they have available. Shorter journeys, less dwell time, better maintenance, optimized stock allocation, and traffic analysis are all ways of achieving sustainability targets, but all require fleet management solutions that enable advanced analysis and actionable insights to both find and implement new routes and better journey planning.

FLEET MANAGEMENT SOFTWARE & THE ROLE OF MAPPING AND LOCATION TECHNOLOGY

The most important components of a fleet management solution shone through in the survey when respondents were asked to rank which ones they would deploy prior to a full system. As Chart 4 shows, real-time tracking of shipments and demand and load planning were ranked in the top 3 by 72.5% and 64.8% of respondents, respectively.

This was further confirmed by the fact that asset tracking and automated fleet tour planning ranked as two of the top ways in which organizations leverage mapping technology and location data. Tracking and planning are the two fundamental pillars to enabling fleet control, and while many solutions can support this, quality can vary significantly.

*Chart 4:   Top Ranked Features of Fleet Management Solutions (left)
            and Top Uses of Mapping Technology and Location Data (right)*
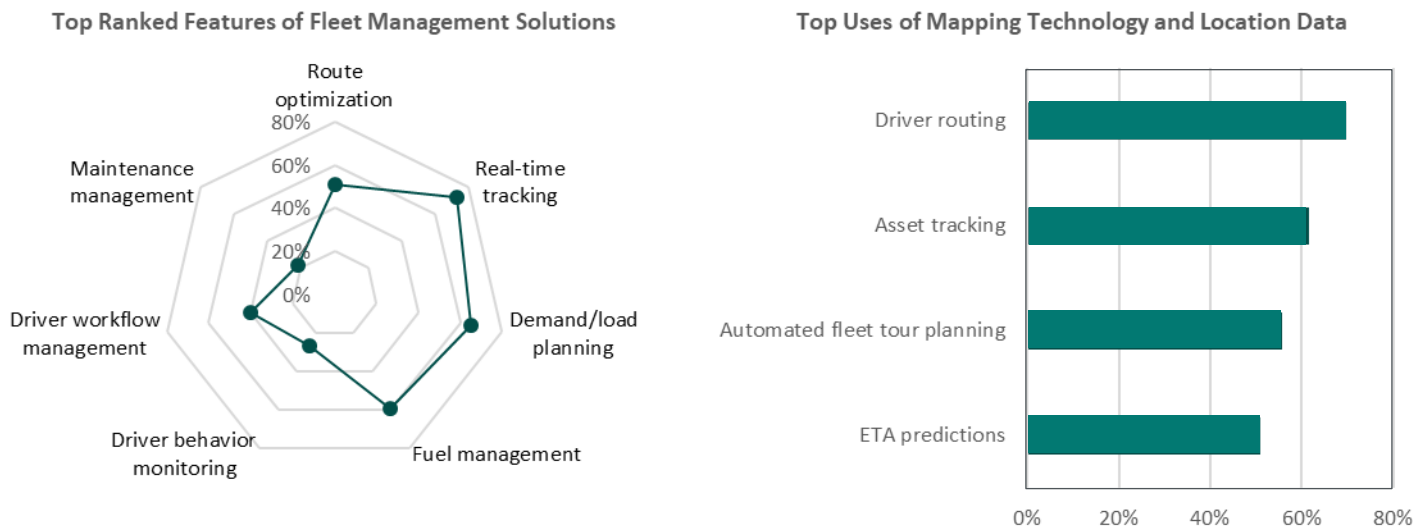
*Q (left): If you were to implement fleet management solution components
to see how well they work with your system, rather than a full end-to-end solution,
which of the following components would you implement?
(Features ranked in the top 3 out of 7)*

*Q (right): In which of the following ways does your organization
use mapping technology and location data?*   *(Source: ABI Research)*

HERE Technologies, a leader in mapping and location data solutions, allows software providers to build better fleet management products with accurate and real-time data, while maintaining full control of their client's proprietary data. This enables comprehensive planning applications through its market leading matrix routing and data analysis capabilities.

When it comes to route planning, the size of the matrix that is analyzing all the origins and destinations matters. HERE's matrix is over twice the size of the nearest competitor in the market, with the ability to run country-wide routing plans, rather than specific regions, ensuring that the full network can be considered to deliver optimal route plans and to maximize asset utilization.

Route optimization also requires analysis of external factors, such as traffic. While traffic is a somewhat unknown factor, fleet management solutions can conduct trend analysis and factor in external events to recalibrate route allocation accordingly. HERE's real-time traffic matrix feeds the model with live information to best inform routes by time of day, but also utilizes time-series data analysis, assessing traffic patterns over time to feed Machine Learning (ML), and subsequently create smarter route plans.

Leveraging internal and external inputs with extensive data analysis capabilities, HERE's solution can subsequently enable:

- Accurate Estimated Time of Arrival (ETA) predictions with an associated reliability score
- Improved on-time delivery KPIs, a decrease in late delivery fines, and improved customer loyalty
- Greater vehicle utilization by maximizing time on the move and optimizing delivery routes
- Better fuel management through greater certainty and control over journeys
- Reduced buffer stocks due to reliability of inventory movements
- Increased operational safety and regulatory compliance for professional drivers

Growing e-commerce, adoption of hybrid and EVs, and low emission zones mean that fleet managers are having to balance multiple types of vehicles, from smaller last-mile vans to long-haul trucks. HERE's solution, for example, allows end users to factor in more than 25 different types of vehicles in their routing, allocating the correct vehicle to a route based on the various restrictions and requirements.

Gain accuracy and precision by combining your data with location context from HERE to develop fleet, transportation, and auto solutions quickly in a secure environment. Accessible directly in your environment, HERE products are built to run on AWS, with reduced latency and the scalability needed to right-size workloads, along with the performance, power, and efficiency of the world's most comprehensive and widely adopted cloud. Designed for speed and flexibility, HERE products are available in AWS Marketplace, so users can take advantage of streamlined procurement, pay-as-you go pricing, control, and governance.

Top 4 ways truck-specific map and routing attributes help fleet operations

Percentages of survey respondents who recognize these benefits for fleet operations.

Lower fuel costs	**74.9%**
Improve fleet routing and operational efficiency	**67.1%**
Reduce driver accident and increase safety	**58%**
Reduce moving violations	**44.9%**

Q: In which of the following areas do truck-specific map attributes and truck-specific routing improve your fleet and supply chain operations?
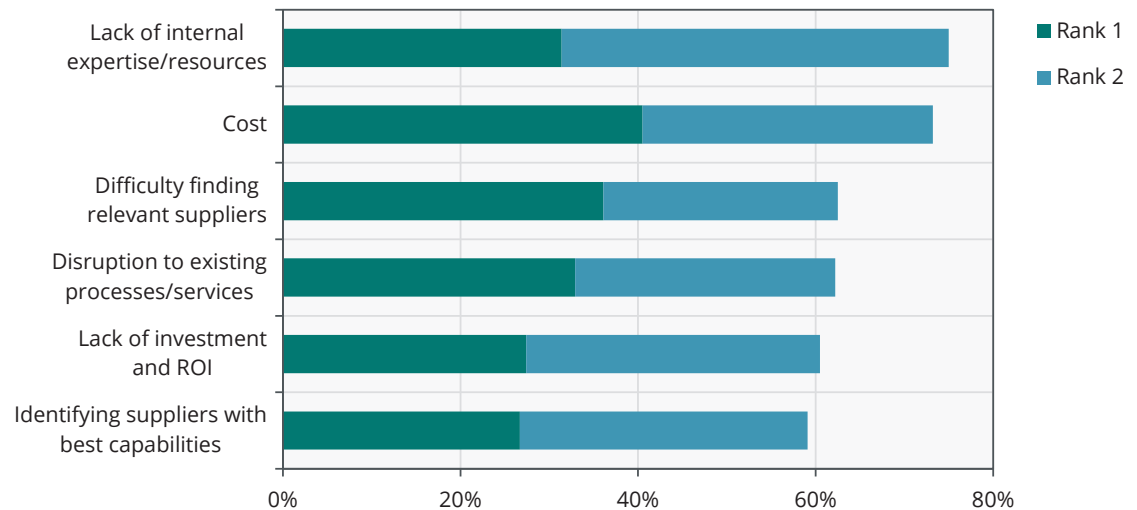
(Source: ABI Research)

KEY CONSIDERATIONS

Implementing or developing solutions requires a number of considerations, both from the perspective of the end user and the implementer. Each business is completely unique, both in their operations and processes, and in their digital and Information Technology (IT) maturity. As a result, Independent Software Vendors (ISVs) continue to wrestle with how generalized or specific they tailor their solution to be and must be acutely aware of industry pain points to correctly position, implement, and support their fleet management solutions.

BARRIERS TO ADOPTION

### Chart 5:   Barriers to Adopting a Fleet Management Solution

Q: What are your organization's key barriers to adopting a solution for supply chain and fleet management?

(Source: ABI Research)

Asking respondents to rank their primary barriers to adopting new fleet management solutions unveiled key themes that are imperative for providers to consider:

Chart 6:   Preferred Contract Structure

Q: What is your preferred contract structure for your solution?

(Source: ABI Research)
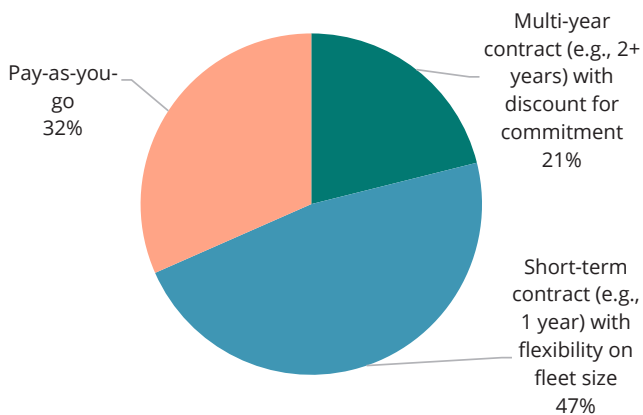
1) Cost remains the largest barrier to adoption of new solutions, with more than 40% of respondents ranking it as the top consideration. While unsurprising to many, it remains an important consideration for ISVs when considering pricing models and how Return on Investment (ROI) is guaranteed.

A further consideration is that 79% of respondents in the survey said that they prefer short-term contracts or pay-as-you-go contract structures, as shown in Chart 6. This somewhat contradicts the idea that cost is the main barrier to adoption, given that longer-term commitments can often offer discounts, but speaks to a market that is seeking flexibility at an attainable price. The most attractive pricing models are not necessarily the cheapest or the most flexible, but the ones that can find a healthy balance between the two.

2) When combining the number of respondents that ranked the metrics as either rank 1 or rank 2, a lack of internal expertise/resources came out on top, resonating with the broader digital skills gap present in the market today. Implementation is one part of this, but lack of expertise can also stop value being gained from a deployed solution, making it essential for solutions to be intuitive and user-friendly, with continued digital support from the provider.

3) Difficulty finding relevant suppliers ranked third when combined, but was the second highest "rank 1" barrier. In today's competitive logistics market, a key focus is compressing the time taken to develop new capabilities and to ensure that the launch of new services and solutions goes smoothly. However, the survey results show that perhaps the most critical constraint to achieving this is that companies find it difficult to identify suitable providers with the specialized expertise needed to both understand their industry and to create solutions that meet their needs. The shift toward developing a comprehensive ecosystem of partners and ISVs that can complement in-house capabilities is emerging as a critical source of competitive advantage.

Not only do partners help accelerate the time to value, but they also help reduce and externalize risk, as well as helping to reduce the pressure on assigning scarce in-house expertise, which enables companies to keep other in-house activities on track. The effective use of a partner ecosystem also makes it easier to manage systems upgrades and avoid the need to continue to devote resource to maintaining systems and upgrades well into the future. The result is more effective management of the Total Cost of Ownership (TCO) of a solution and improved customer service as new capabilities are delivered to meet customer needs.

ENTERPRISE-WIDE DATA INTEGRATION, CONFIGURABILITY, AND ACTIONABLE INSIGHTS

Organizations no longer want to take on point solutions that operate in silos, but rather to adopt capabilities that can integrate with existing systems and consolidate disparate sources of data to provide actionable intelligence. As previously indicated, data is readily available, but many organizations feel they still lack the expertise to configure solutions themselves to access and process the data they have. The survey found that 73.7% of respondents see the ability to integrate one's own data into a fleet management solution as valuable or extremely valuable, while "integration with existing systems" was ranked the number 1 reason by most respondents when asked what would prompt them to consider a new provider.

Comprehensive data integration is the foundation, but solution providers must also consider how they provide organizations with software that can take data and turn them into actionable intelligence. This growing desire for systems to perform deeper analysis and offer more support to decision makers through "cognitive" insights is fueling an increase in investment in data analytics to enable greater ETA accuracy. Among the survey respondents, 75.9% plan to increase their spending on data analytics capabilities, with 44.1% increasing this within the next 18 months. The oncoming wave of AI-enabled functionalities will only further elevate this need, increasing the need for fleet management solution providers to support data accessibility and control.

ONGOING TECHNICAL SUPPORT AND SERVICE CAPABILITIES

The survey found that direct technical support was the most important service when it comes to fleet management solutions. Among the respondents, 44.1% ranked "technical support for multiple users" as extremely important, 33.1% ranked a "customer support portal" as extremely important, with a further 34.7% and 41.8% ranking them as very important. These were ranked as more important by more respondents than other services such as demos, product training, alerts on service health, and monthly reports.

While all services were ranked as somewhat important by most, continued, direct, and accessible technical support clearly shone through. This speaks to industry professionals who do not just want one-time training, but rather seek continuous assistance from solution experts that are accessible to each individual user of the solution.

CONCLUSION

Even though most survey respondents have moved away from manual documentation, digitization is a never-ending process, and is particularly important as solutions deliver more advanced functionality. ISVs and solution providers must establish a clear roadmap with end users and support the introduction of new functions that keep companies up to date with advancing technologies and changing customer expectations.

Creating a systems architecture that simplifies the addition of new modules is important to support scalability, but providers must augment this with data integration and services to optimize systems performance. To do this, ISV and software providers should look to build around one source of truth, such as an organization-wide address management database, and then create feature roadmaps for enhancing capabilities. Building from a single source of truth enables more sophisticated solutions, which can automate workflows and balance multiple priorities and constraints.

Providing system development alongside direct training and user support, as mentioned above, will enable fleet managers and users to maximize the value they can gain from a fleet management solution and ensure that solutions continue to provide value beyond implementation.

ABOUT HERE TECHNOLOGIES AND AWS

Together, HERE Technologies and Amazon Web Services (AWS) are combining the strength of location technology with leading cloud and IT services to address location-related challenges in the supply chain and logistics industry worldwide to optimize end-to-end logistics.

Deployed natively on AWS, HERE location services and HERE Tour Planning, with truck-specific data, help you build solutions that provide new levels of asset visibility and ETA accuracy all the way to the last meter. The security and resiliency of AWS services provides the reliability you need to grow. When HERE truck-specific data is added to applications, it can optimize fleet utilization, increase driver safety, enhance driver-facing applications, and enable precise (micro point) location and addressing.

HERE also offers APIs and content bundles tailored to the unique needs of the trucking and logistics industries so your supply chain software includes dynamic routing, fleet monitoring, and ETA predictions. You can control how routing software responds to disruptions and your developers can add unique business logic to routing algorithms, all available with pay-as-you-go pricing options.

Learn more about HERE solutions on **here.com** and the **AWS Marketplace**.

WE EMPOWER TECHNOLOGY INNOVATION AND STRATEGIC IMPLEMENTATION

ABI Research is uniquely positioned at the intersection of end-market companies and technology solution providers, serving as the bridge that seamlessly connects these two segments by driving successful technology implementations and delivering strategies that are proven to attract and retain customers.