



5 Ways to Overcome Fluctuating Fuel Supply and Demand

White Paper | 2022

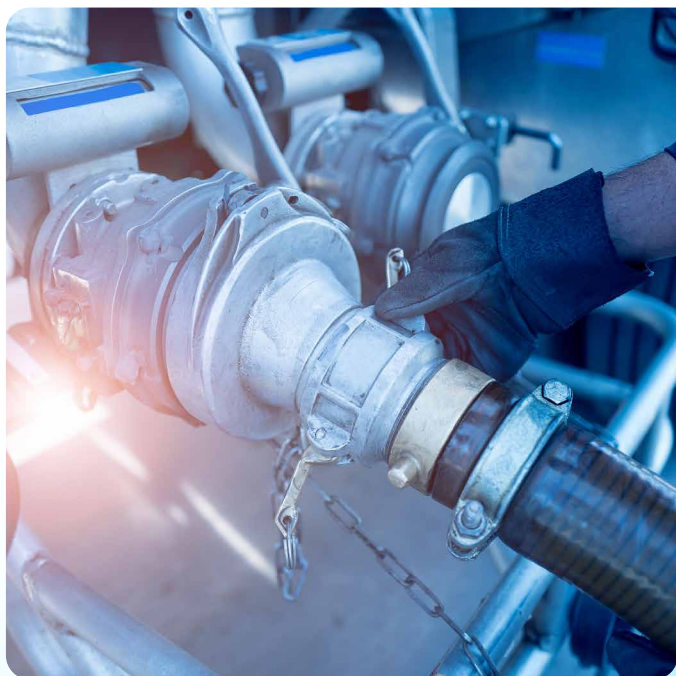


Executive Overview

In today's "smart" connected world, cybercriminals and fluctuations in fuel supply and demand are nothing new, but the breadth and immediacy of these fluctuations have become much more apparent in the last few years. The ability of fuel retailers and wholesalers to navigate these fluctuations will go a long way in determining which brands will thrive and which ones will get left behind.

In 2020, the lockdowns caused by the COVID-19 pandemic offered a glimpse into how precarious the fuel supply chain can be as widespread travel nearly ground to a halt. The flip side is how quickly the situation can reverse itself, as soon as the general population took to the road again.

The key lesson is that the demand for fuel—and the available fuel supply—can fluctuate faster than ever before. As you assess these macro-economic conditions, it's important to identify what factors are beyond your control and how you can mitigate their impact. After all, your ongoing success will ultimately depend on how effectively you can overcome these obstacles.



5 Big Industry Challenges

The reasons for increased volatility in fuel supply and demand are varied, but it's clear that the entire industry now faces an increasingly complex mix of challenges, including:

1. Supply chain disruptions
2. Driver shortages
3. Retail labor shortages
4. Natural disasters
5. Cyberattacks

Challenge 1: Supply chain disruptions

Perhaps the most obvious issue that can affect the fuel supply chain is a major pipeline disruption. Pipeline shutdowns have been top of mind following the high-profile ransomware attack on the Colonial Pipeline in the Southeastern US. Although this cyberattack highlighted one type of vulnerability in critical infrastructure, several other factors can also disrupt fuel supply.

One of the most common causes is the sheer number of gas stations and fuel distributors that still rely on manual processes. In the recent past, this typically hasn't been a big problem. There was enough domain knowledge in the heads of dispatchers and drivers who ran operations manually for years. Unfortunately, the COVID-19 pandemic and resulting lockdowns exposed these businesses to rapidly shifting market dynamics—leading to fuel run-outs across gas stations in all parts of the country.

This impact highlights the need for digital solutions that provide greater insight into price fluctuations, dispatching issues, fuel inventory, and invoicing. Otherwise, even minor errors across any of these functions can have a negative effect on revenue, customer satisfaction, and future operations.



A 2021 user survey from GasBuddy revealed that 90% of consumers in the US planned to take a road trip in 2021, regardless of COVID conditions.

Challenge 2: Driver shortages

Another key to managing the fuel supply chain is having someone to transport the fuel. America's truck driver shortage isn't a new phenomenon, but it's quickly becoming a significant threat to the industry. By the end of 2017, the trucking industry needed 50,000 new drivers to keep up with demand—and the American Trucking Associations (ATA) estimates that there could be a shortage of over 160,000 drivers by 2028.

Much of this issue stems from an aging workforce, with the average age of a truck driver now 55 years old. Compounding that problem is the fact that during the height of the pandemic, many drivers opted for early retirement or pursued a different career due to COVID-related health concerns. Today, there simply aren't enough qualified younger drivers to make up for the shortfall—and driverless vehicles won't likely provide a viable solution anytime soon.



According to *CSP Daily News*, 97% of retailers have had trouble staffing their stores over the last year.

Challenge 3: Retail labor shortages

If not having enough drivers to deliver fuel is one side of the labor shortage coin, the other side is the critical shortage of workers in the retail industry. According to Pew Research, workers in low-wage jobs in the services sector experienced the greatest drop in employment in 2020. Again, the pandemic is partly responsible. The lockdowns redefined employment dynamics, with many seasonal and part-time workers opting out of the workforce altogether.

With more competition for fewer workers, convenience and fuel retailers have struggled to hire enough people. Although they have traditionally been able to manage the supply

chain and keep up with daily operations without having to worry about finding workers, that's no longer the case. As competition increases and customer expectations change, you now must continually find ways to reduce costs—all while trying to find enough workers to hire.

Challenge 4: Natural disasters

While you can always assume that some business disruptions will occur, they aren't necessarily predictable. However, while the COVID-19 pandemic represents a once-in-a-lifetime event, you can anticipate that natural disasters will happen much more frequently. Whether they take the form of tornadoes, floods, fires, or hurricanes, natural disasters can wreak havoc on refinement, storage, and distribution facilities—the critical infrastructure of the fuel supply chain.

For instance, the Gulf Coast region handles approximately 30% of oil production and distribution in the US. When severe weather incidents occur, such as Hurricane Katrina, they can impact fuel supplies and pricing on a national level. Because you can't predict when and where disaster will strike, you must make sure your business is as agile and adaptable as possible.

Challenge 5: Cyberattacks

Cybercrime has been steadily rising for several years and, according to Cybersecurity Ventures, global cybercrime damage now amounts to \$6 trillion per year, or \$16.4 billion each day. One primary reason is that cybercriminals are leveraging increasingly sophisticated tools and tactics to exploit easily discovered vulnerabilities across the fuel supply chain.

Although the Colonial Pipeline attack made all the headlines, smaller wholesalers, distributors, and retailers are getting hit with ransomware on a daily basis. If your business lacks a holistic cybersecurity strategy, the proper tools, or 24/7/365 coverage, you're simply not prepared for today's advanced threats. Even though the stakes couldn't be higher, most businesses lack the in-house expertise and resources to adequately secure their operations—and many also lack a reliable disaster recovery and business continuity plan.

5 Key Ways to Regain Control

Even if you can't control all the external factors that cause fuel supply and demand to fluctuate, you can prepare your business to be as adaptable as possible to handle whatever comes next. Investing in ways to make your business more flexible and efficient can pay significant dividends if you can adjust to new industry trends or disruptions faster than your competitors.

The best way to stay ahead of your competition is by embracing innovation and, in particular, digital transformation. In fact, a McKinsey & Company COVID-19 survey revealed that companies need innovation more than ever, highlighting the need to examine your innovation portfolio to ensure you're allocating ample resources for growth.

A modern, agile IT infrastructure featuring best-in-class solutions and processes can reinvigorate your business, empowering you to optimize your operations and leverage new opportunities as they arise. To put it more plainly, focus on controlling what you can—and your agile digital infrastructure will help do the rest. Here are five actions you can take to help ensure a steady revenue stream with maximum profits:

1. Optimize fuel pricing
2. Elevate your guest experience
3. Upgrade your food service options
4. Define your EV strategy
5. Commit to cybersecurity



According to McKinsey & Company, organizations with fewer than 100 employees are 2.7 times more likely to report a successful digital transformation compared to organizations with more than 50,000 employees.



1: Optimize fuel pricing

Even if you can't control fuel supply and demand levels, you can at least optimize fuel pricing to make sure your business is profitable. Digital fuel pricing solutions are great for replacing manual processes, eliminating multiple steps to increase both speed and efficiency. For instance, at the start of the pandemic, many operators quickly realized they needed digital tools to centralize supply points and synchronize dispatch teams across multiple locations.

By better understanding your entire supply chain, you can more easily meet fuel demand. And once you ensure demand, you can then determine the best way to maximize revenue. For example, you can use automation to make real-time pricing decisions that maximize your margins and ensure that your fuel is priced lower than your competitors (but still generating a worthwhile profit).

Fuel pricing solutions that leverage Artificial Intelligence (AI) and Machine Learning (ML) make it much easier to have repeatable processes that work across multiple scenarios. In this way, AI, ML, and automation can deliver the immediate on-demand insights required in the fast-paced world of logistics. These tools can also help you capture and extend deep institutional knowledge—freeing up your experts while making new employees productive much sooner.

2: Elevate your guest experience

Beyond making your fuel supply chain and pricing process more efficient, focus on attracting new visitors to your stores. Once again, embracing mobile, IoT, and AI technologies can help you accelerate your digital transformation and allow you to truly differentiate your guest experience. In particular, digital tools help free up employees to focus on consumer engagement rather than mundane, manual processes.

Start by investing in tools that turn your data into business insights, then combine your sales and traffic forecasts into a predictive and actionable business plan. That will give you the foundation to attract new shoppers by:

- Making sure you have the right assortment of products (beyond the traditional “Cokes-and-smokes” formula)
- Investing in private-branded items shoppers can find only in your stores
- Experimenting with unique food offerings, including more fresh and healthy options
- Partnering with CPGs to create the right promotions and offers

Developing consumer-focused loyalty programs is also a great way to incentivize shoppers to make return visits to your stores. According to the 2020 Road to Rewards Report: Navigating Loyalty in a Pandemic, survey respondents noted that using technology to enhance the customer experience remains a top priority, with many targeting more personalized loyalty programs.



During periods of uncertainty and potentially fewer visits, digital engagement becomes increasingly important to c-store success.

3: Upgrade your foodservice options

One of the best ways to attract new customers is to upgrade your foodservice options. Why? According to a National Association of Convenience Stores (NACS) study, foodservice (including prepared items and dispensed beverages) now accounts for 22.6% of sales at US c-stores, excluding fuel.

Consider offering fresh premade foods or made-to-order offerings. For premade foods, investing in a self-service kiosk could make good business sense. For customized offerings, you'll need to make sure you have the right staffing levels to keep your customers satisfied.

Digitization plays an increasingly vital role in modern foodservice, especially with the current labor shortage. Inventory management and customer insights are critical if you want to have the right amount of premade food and avoid waste with your fresh offerings. You need to know when to expect foot traffic and sales based on forecasts so you can be prepared for larger morning rush groups or happy hour trends, for example.



4: Define your EV strategy

Although the number of Electric Vehicles (EVs) has steadily risen in the past few years, the vast majority of charging stations are still private. If you're not already plugged in to this disruptive trend, you might want to start defining your EV strategy. Failing to do so now could represent a massive lost opportunity, because most c-stores are full of products that EV drivers might consume as they wait for their vehicles to charge.

With EV charges taking much longer than a gas tank fill-up, consumers will have additional time on their hands. And if you can give them a reason to visit your store, they represent an important potential market. Once again, knowing what these unique consumers want is critical for delivering the type of products and services that will make your stores a destination point. But you must create a welcoming environment with offerings such as:

- Guest Wi-Fi and a comfortable space to linger
- Outdoor seating areas
- Clean bathrooms
- Uniquely branded products
- Items such as frozen yogurt (high in profit, low in waste)



According to the National Transportation Atlas Database, the entire US had only 25,313 public charging stations at the end of 2020, and over half were in California.

5: Commit to cybersecurity

It might not sound as exciting as some of the other areas of investment, but enhancing your cybersecurity posture is one of the best investments you'll ever make. It's not an exaggeration that the fate of your business could rest on one of your employees clicking on the wrong email link. In fact, it's now more likely than not that your business will be impacted by a cyberattack at some point.

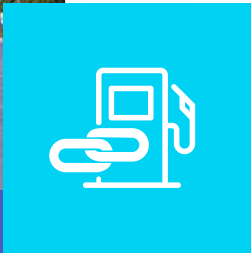
If you don't have essential cybersecurity tools that protect all your IT endpoints (every system or device connected to the Internet), your business will be vulnerable. And it takes more than just the basic anti-virus tools to stop today's increasingly sophisticated cyberthreats. Remember the discussion about AI and ML? Cybercriminals are now using those technologies to continuously probe your IT systems for weaknesses.

Unfortunately, most convenience and fuel retailers don't have the in-house expertise and resources to adequately protect against these threats. The good news is there are many reputable cybersecurity vendors that can supplement your internal processes to provide 24/7/365 coverage over your systems with a team of highly skilled cybersecurity experts.

Accelerate Your Digital Transformation to Overcome Fluctuating Fuel Supply and Demand

When you can't easily predict what disruptions or market trends will happen next, you need a flexible digital infrastructure to stay competitive and profitable regardless of circumstances. The pandemic era has only reinforced how important digitization is to thrive in this increasingly competitive environment. The more effectively you can innovate with new processes and technologies, the faster you'll be able to adapt your business for continual success.

PDI's wide range of fuel and convenience solutions can help you innovate, transforming difficult challenges into a wide range of new business opportunities. Learn how at www.pditechnologies.com.



About PDI

Professional Datasolutions, Inc. (PDI) software helps businesses and brands increase sales, operate more efficiently and securely, and improve critical decision-making. Since 1983, PDI has proudly served the convenience retail and petroleum wholesale industries. Over 1,500 companies, representing more than 200,000 locations worldwide, count on PDI's solutions and expertise to deliver convenience and energy to the world.

For more information about PDI, visit us at www.pditechnologies.com.

