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RUTGERS UNIVERSITY BUSINESS SCHOOL

### ABOUT THE RUSCA NEWSLETTER

We are a team of writers and editors who write content based on current news and events happening in the supply chain world.

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# A STRAIN ON THE SUPPLY CHAIN: ADVERSE EFFECTS OF THE PARTIAL GOVERNMENT SHUTDOWN

By JONATHAN DIPIPPA



The partial government shutdown that occurred from December 22, 2018 to January 25, 2019 has had numerous detrimental impacts on supply chains and the U.S. economy as a whole. Due to the lapse in appropriations for several key federal agencies, trade and customs were disrupted, making the transportation of goods more cumbersome and inefficient. Additionally, the shutdown produced broad macroeconomic losses and uncertainty that have directly impacted the financial performance of many firms.

The government shutdown interrupted the smooth flow of goods internationally by altering

trade practices. One example of such a disruption was the cessation of product exclusions from steel and aluminum tariffs due to the inactivity of the Commerce Department (Nagarajan & Morgan). This essentially means that U.S. importers and exporters faced increased uncertainty and shipment delays as they determined if tariffs would be applied to their products. This uncertainty added to the

existing trade tensions with nations such as China that have occurred as a result of President Trump's tariffs. Although the President cited unfair trade practices by the Chinese as a reason for the tariffs, the International Trade Administration was unable to conduct antidumping or trade investigations during the shutdown (Nagarajan & Morgan). This lack of oversight and investigation left U.S. firms at increased risk of price fluctuations and unfair competition from foreign companies.

A direct and impactful effect of the shutdown on supply chain was disruptions in air cargo. Although the Transportation Security Administration (TSA)





and the Federal Aviation Administration (FAA) kept essential employees working without pay at the nation's airports, both agencies faced personnel shortages as workers began to call out sick for financial reasons. According to an article from the trade publication Air Cargo Airports, "Short-staffing of FAA controllers at several U.S. airports during the government shutdown began disrupting flight schedules and impacted the air cargo supply chain, as well as passenger and cargo security screening." Additionally, new aircraft could not be approved for use, and air infrastructure projects were put on hold (Toczauer). The cumulative effect of these disruptions was a backlog of cargo flights and a general sense of uncertainty regarding the safety and efficacy of U.S. air transportation.

In addition to the more direct supply chain effects, the shutdown broadly impacted the U.S. economy and led to an absence of key statistics and data. Government shutdowns tend to lower consumer confidence and discourage investment, and as the longest shutdown in U.S. history, this has certainly been the case. The Department of Commerce and its Bureau of Economic Analysis (BEA) were not able to provide statistics and publications related to the country's economic output and capital expenditure trends. This information is a key facet of supply chain planning, meaning that supply chain managers had to generate forecasts based upon inadequate information (Michael). Lyneir Richardson, executive director of the Center for Urban Entrepreneurship and Economic Development at RBS Newark, notes that government shutdowns also adversely affect business cash flows. Businesses often choose to delay capital expansions and attempt to negotiate credit terms to delay payments to vendors and creditors, all of which puts a strain on the larger economy (Uzialko). Evidently, the government shutdown harmed the U.S. economy and the numerous interconnected supply chains that flow through it.

"Short-staffing of FAA controllers at several U.S. airports during the government shutdown began disrupting flight schedules and impacted the air cargo supply chain"

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# THE IMPACT OF THE GOVERNMENT SHUTDOWN ON DEMAND PLANNING

BY KILEY WILLIAMS



America started off the new year with what was thought to be another government shutdown but what we did not know was that this shutdown was going to become the longest in U.S. history. The 2018-2019 shutdown lasted a total of 34 days, beating out the 21-day shutdown in December 1995 and the 16-day shutdown in October 2013 (Shaul, Uhrmacher). This record-breaking shutdown resulted in a delay in the transportation of raw materials, products, and reports that are critical to the world of Supply Chain.

When the government was shutdown, the release of vital federal data was halted. The government runs reports that include data on imports and exports, different demand trends, and global trades that were no longer updated due to the shutdown. This created drastic issues for Demand Planners and Forecasters. Without having up-to-date information on the market, it is nearly impossible to plan properly. Demand planners are left to use previously released data which becomes increasingly outdated the longer the shutdown lasts. Although some departments in the government did not fully shutdown, like the Department of Transportation

(DOT), others like the Energy Information Administration (EIA) did. The EIA produces reports including weekly gas prices which are important to planners. These gas reports help them to determine the total price of goods they need, including any fuel needed for the transport itself. Other reports that have been stopped due to the shutdown include retail sales, durable goods, and the Department of Agriculture's supply and demand predictions for crops (Chandra, Kearns).

All of these reports are crucial in formulating a reliable demand plan. Demand planners rely heavily on a variety of economic data to help project future sales. This includes data put out by the Commerce Department. Without this data, especially after the most recent holiday season, planners are unsure of which products really sold and at what rates (Bloomberg). It's crucial that this information stays up to date because of how fast supply and demand changes. Demand changes on a regular basis and the older a report is, the more likely that the information in it has already become less relevant to the current demand.

The government shutdown prevented around 800,000 employees from being paid, whether they were being furloughed or simply working without pay (Rein, Fischer-Baum). This means that consumer spending, especially on non-essential goods, dropped due to the lack of funds. The shutdown lasted 34 days which indicates that there was over a month of time where consumer spending was cut. Considering the shutdown began on December 22, this decrease in spending affected the most recent holiday season. Consumers looked to spend less money this year which could impact inventory for any business.

Overall, the government shutdown affected businesses in a major way. By not having updated reports on the market, it is difficult to accurately forecast demand and as time continues to pass without updated information, the harder it becomes for the planners to do their job well. Crucial economic data needed to plan inventory was made unavailable which leads to the inability to plan inventory. Demand planners have a difficult enough time trying to pinpoint their plans and the most recent government shutdown only increased the potential inaccuracy in forecasting.

"The government shutdown prevented around 800,000 employees from being paid"





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# UNSUNG HEROES OF THE SUPPLY CHAIN: REVERSE LOGISTICS

By Ameer Ali



During the partial government shutdown, 41% of workers at the Food and Drug Administration (FDA) were placed on furlough which resulted in a one-third decrease in food inspections of domestic food products in the United States (Jamie Ducharme, TIME Magazine). The lack of inspections exposed Americans to more airborne diseases such as E. coli, salmonella, and norovirus. The VIP of contaminated food during the government shutdown was romaine lettuce. The Center for Disease Control and Prevention reported 62 total cases with 25 hospitalizations from 16 states of an e.coli outbreak cause by romaine lettuce. On December 16th, 2018 the official product recall of romaine lettuce was



announced and reverse logistics companies, and departments sprung into action to safely dispose of the contaminated food. Product recalls is an integral part of reverse logistics by closing the loop of a typical forward supply chain. Without reverse logistics during this government shutdown and in the food industry overall, there would be health concerns, an excessive amount of food waste and many companies suffering from negative brand image.

The smooth process of product recalls made it possible to quickly and safely dispose of contaminated food during the government shutdown. FDA Commissioner Scott Gottlieb said that "Without federal funding, the FDA's routine food safety inspections can't be scheduled as usual.". With the sheer volume of the amount of food regularly even with full funding, the entire food supply could not be completely inspected (Splitter, Forbes). Therefore companies prepare their reverse logistics departments to handle recalls in food to avoid producing sub-par produce, but without full funding, doing inspections of a large quantity of food when

it's already difficult to begin with, is a massive issue. However, the CDC was able to pinpoint the location of the outbreak, then contact suppliers to halt the distribution of produce, and retrieve and dispose of the existing romaine lettuce in the market. These are integral steps when tracking and returning produce during a product recall and without these steps, the outbreak could have continued and progressed to dangerous levels.

"The smooth process of product recalls made it possible to quickly and safely dispose of contaminated food during the government shutdown"



A large part of reverse logistics is the three R's: reduce, reuse, and recycle and without these bylaws there would be incredible amounts of food loss and food waste in the supply chain."In developing countries like India, 20% loss occurs at harvest stage, 40% of loss occurs at the post-harvest stage, and the remaining 40% of loss occurs at retail and consumer stage (Food and Agriculture Organization of the United Nations, 2011)." During the government shutdown. The food inspections link of the supply chain broke which cause an increasing amount of food waste and opened up the door to harmful illnesses to affect consumers. The backward flow of good is necessary to create a smooth logistics operations within a company. It helps aid the companies when something goes wrong. Otherwise, there would be nothing to lean on for support.

With multiple recalls, companies lose trust from their consumers who are hesitant about the safety of their food and companies lose trust in their suppliers. During the E.coli outbreak, "Not every farm has a supply chain spanning the vast geography of this outbreak, involving 12 states plus Canada. So while romaine grown by small California farms selling directly to consumers could in no way be implicated, they nonetheless take the hit." (CAFF, The Farmers Guild). Due to the implications of the government shutdown, small farms were hurt by product recalls due to the loss in sales and also because of the cost of taking shipments out of distribution. Now consumers and even producers will be hesitant when eating and selling romaine lettuce because of the fear that history might repeat itself and another outbreak could occur.

Even though reverse logistics can be an expensive and tedious process, it is necessary when the health and lives of consumers are put at risk. The government shutdown has shown that quality control provided by the FDA is an integral part of the food industries' supply chain because otherwise, the repercussions of contaminated food are dangerous to consumers and the supplying companies. However, reverse logistics is the safety net companies, and consumers can fall back on when instances out of the companies control take place. Without reverse logistics, the supply chain would be an incomplete circle. So thank the unsung heroes of the supply chain.



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# CROWDSOURCED LOGISTICS AND ITS EFFECT ON CITIES AND COMPANIES ALIKE

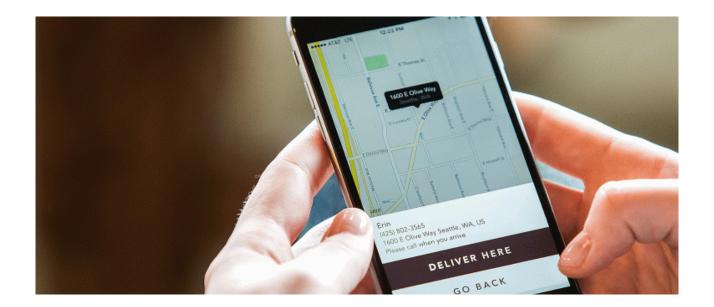
By Kevin Reshamwala & Kieran Williams

### **Industry Says: Endorse the Crowdsource**

Same-day delivery -- it sounds too good to be true, but companies around the globe still make it happen everyday. Nowadays, 56% of millennials expect same-day delivery from retailers, something that was unthinkable not too long ago (Dolan). But how it is possible? Yes, you need a highly organized logistical system, but there has to be more to it. The answer -- crowdsourced logistics. As a modern, unorthodox idea, crowdsourcing is raising eyebrows by transforming "last mile" delivery.

On the whole, the logistics industry has been undergoing some rapid changes lately. Traditional norms are being challenged and companies are being forced to rethink their supply chain framework. Three major issues are shaking up the entire industry: the decreasing patience of online





customers, the mandated use of Electronic Logging Devices to regulate driving hours, and the shortage of truck drivers across the board. When companies look at these problems and then at the bottom line, all signs point toward crowdsourced logistics.

Simply put, crowdsourced delivery is "an emerging method of fulfillment that leverages networks of local, non-professional couriers to deliver packages to customers' doors" (Dolan). Traditionally, a seller will either own a fleet of their own truckers and assets or use a third-party logistics company to manage all or part of their transportation services for them. Both options require up front time, money, and resources. With crowdsourced logistics, customer demand is better met with the flexibility of time, money, and resources.

This innovative concept has already taken the business world by storm. Take UberEats for example, how convenient is that? Many restaurants now don't even have food delivery drivers anymore because they utilize the crowdsourced logistics of Uber. Similarly, it isn't uncommon to order food and see a DoorDash delivery man (who doesn't work for the restaurant) at your front step. Grocery stores have caught the crowdsourcing bug too -- chains like Aldi, Kroger, and Target have partnered with Instacart and Shipt to deliver fruits and vegetables to customers in under an hour. Deliv, a startup that provides crowdsourced logistics software for several retailers including Walmart, recently received \$40 million in funding from companies like Google, Enterprise, and United Parcel Service (Nassauer). Clearly, crowdsourced delivery is being gradually embraced by both companies and customers across the country.

"Crowdsourced delivery is an emerging method of fulfillment that leverages networks of local, non-professional couriers to deliver packages to customers' doors"

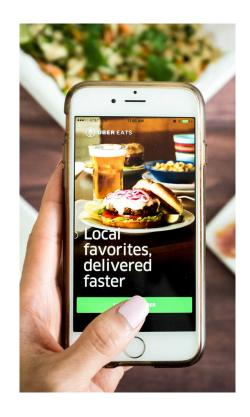


Interestingly, crowdsourced delivery has become the newest installment in the arms race between Amazon and Walmart. On one hand, Amazon already has a number of same-day delivery initiatives such as Amazon Restaurants, Prime Pantry, and Amazon Fresh. But now they have added another name to the list: Amazon Flex. Under this program, independent contractors utilize a company app to make deliveries for Amazon while driving their own cars. Similarly, Walmart recently unveiled Spark Delivery, a proprietary crowdsourced delivery platform (Statt). Both Spark and Walmart's established grocery delivery service are part of a robust effort to expedite its logistical operations. As you can see, Amazon and Walmart are doing everything in their power to reach more markets and more customers, more quickly.

### Cities Say: Beware the Crowdsource

In general, we can evaluate the effects of crowdsourced delivery from two different perspectives: corporations and cities. As we have discussed, corporations are taking advantage of crowdsourcing to improve and expand their logistical networks. E-commerce has turned global logistics upside down; companies are looking for ways to satisfy customer demand, but they can only do so much by themselves. They turn to crowdsourcing because it's a flexible and proven business model, given the fact that the drivers are contract laborers and that crowdsourced ride-hauling (Uber and Lyft) has stood the test of time. However, it is a different story for cities around the world. Traffic congestion continues to be a major problem in big cities, and with urban freight expected to increase by 40% in the next thirty years, things are not getting easier to handle (Cosgrove). Cities such as New York have explored various solutions such as ride surcharges, putting a cap on ride-sharing licenses, and congestion pricing -- all with mixed results. The only legitimate way to reduce congestion and make cities more efficient is for there to be continuous cooperation between corporations and governments. For instance, crowdsourcing companies need to emphasize "on the way" delivery, not just same-day delivery, thereby decreasing unnecessary movement. More importantly, there needs to be an exchange of detailed delivery and traffic data between these two parties so that they identify the root causes of congestion problems and collaborate to create solutions.

How do you think crowdsourced logistics will impact corporations, cities and society as a whole in 2019 and forward? Personally, we're thinking it'll only continue to grow. Procurement, known in history to create and negotiate contracts and terms of agreement for services, let's say transportation services in this case, has a possibility to shift from long term planning to short term planning. Customer demand has proven to be erratic and with the potential for idle trucks, with contracted carriers waiting for work,



"The only legitimate way to reduce congestion and make cities more efficient is for there to be continuous cooperation between corporations and governments"

or even being stretched too thin, crowdsourced logistics seems like a vital solution to issues on both ends of transportation issues; wasting money idle or in desperate need of carriers in a pinch. Particularly with emerging technologies as Artificial Intelligence we're confident that the possibilities with crowdsourced logistics are endless and only prove a viable solution to issues that have been. Overall, consistency and convenience is the name of the game, and crowdsourced logistics will help companies achieve that.



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