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RUSCA *and* SUPPLY chain

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Rutgers University Supply Chain Association

RUSCA

Rutgers University Supply Chain Association



Shaping the world's future Supply Chain leaders

Welcome Back!

While we were away, the world of Supply Chain kept moving forward. In this issue, we catch up with Walmart and Alibaba as they continue to develop their supply chains while Ofo and BASF innovate for the future of bike-sharing. Meanwhile, we discuss how supply chains are at the center of recovering from hurricane season. And here at the RUSCA Newsletter, we're looking to bring you closer to all things supply chain with two new sections: a Rutgers SCM student profile and a roundup of some of the stories that caught our eye this past week we thought you might enjoy.



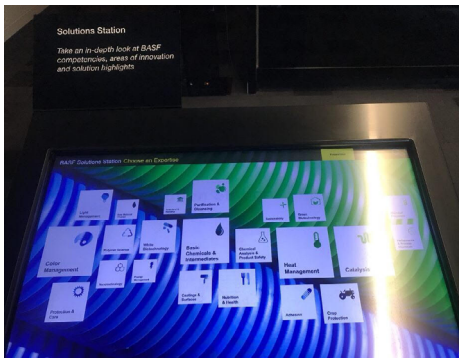
RUSCA is now a recognized affiliate of ISM, the largest international professional supply management organization!

For RUSCA-specific events, see page 11

For previous newsletter editions, visit
<http://rutgersrusca.weebly.com/newsletter.html>

Event Recap

RUSCA and Rutgers SCM students had the opportunity to visit the BASF North American Headquarters in Florham Park, NJ last month!



In Case You Missed It

ISM Manufacturing Index shows U.S. manufacturing expanding at its fastest pace since 2004 in 17 of 18 industries due to firmer footing for many manufacturers and the effects of hurricanes Harvey and Irma

The forced shutdown of many refineries, plants, retailers and dealerships and the subsequent damage of merchandise due to Harvey and Irma contributed to an extension in lead times and a lift in orders. However, the underlying strength of the manufacturing sector with improved global demand and increased U.S. capital spending has largely driven the index to its highest in 13 years.

The US International Trade Commission (USITC) ruled in favor of Whirlpool's complaint that South Korean competitors, Samsung and LG, were hurting domestic producers - paving the way for global safeguards to be implemented

Whirlpool brought this case to the USITC saying Samsung and LG were dumping residential washers into the U.S. market; Samsung Senior VP, John Herrington retorted, "Whirlpool didn't keep pace" with the sleek, modern and innovative designs of many foreign washers. The USITC's ruling that domestic producers have been negatively impacted will next lead to a hearing on remedies including potential duties and tariffs for the import of washers on Oct. 19th.

Deliveries no longer limited to drones - DHL is running a six week trial on robot assisted postal deliveries beginning in the German town, Bad Hersfeld

German Postal Services and Deutsche Post DHL have developed a custom robot called "PostBOT" to assist postal workers in delivering mail to citizens. The e-commerce boom has seen the packages needing to be delivered grow in size, weight and difficulty for many postal workers. These all-terrain delivery robots will be able to handle up to 330 pounds and navigate everyday obstacles.

San Diego City Council Members voted 6-3 in favor of legalizing marijuana cultivation and manufacturing - becoming one of a few cities in California to have a fully regulated local marijuana supply chain

The vote was a move to eliminate fears of a "local black market" of unregulated cultivators and manufacturers with Councilwoman, Barbara Bry, stating "it's our obligation...to have responsible regulation of all parts of the supply chain." However, criticism of the vote has been voiced pertaining to the potential for an increase in organized crime and how the supply chain remaining "local" can be enforced.

Guest Article: Don't Say, Just Do

BY: NATHAN GABRIEL (Supply Chain Management Major, Class of 2019)

As a recently turned 20 year old college student, I've been asking Google a lot of questions. "What is the highest paying career", "How to find your passion", "How you know when you've found your passion", "Jobs with best work-life balance", "Why you shouldn't be a (insert career choice)". You get the point. Most people around this age start asking these types of questions, as they should be. It's the age of discovery, where they really try to find out both who they really are, and how they fit into this world. They begin to make that transition from deciding who they're going to hang out with tomorrow and where's the next party, to deciding what kind of work they want to be doing, how much money they'd like to make and how to do it, and whatever other goals they have in mind for the future.

There are two concerns at hand in this matter: First is the questions and the answers to those questions, and second, is the steps taken after getting those answers.

You see, the problem doesn't lie with the questions that are being asked. No, these questions are natural, and everyone has them, especially around this point in time of their life. The issue lies with where they are being asked: the internet. Don't get me wrong, the internet has answers to questions you can't even think of. However, when it comes to the kinds of questions that new adults are asking, you're going to discover so many different answers, that you end up even more unenlightened than before reading all those articles and online comments.

This is something that I myself have realized as I've looked up all these should I do this or that, what are the pros and cons of going down this career path. Once again you get the point of the types of questions. Recently the more questions that have been on my mind, the more I have been Google searching all of them. It wasn't until recently where it dawned on me. I've been looking up these kinds of questions for maybe 2 or 3 years now, more now that I think about it, but more intensely now than before, yet, after all those searches, I still don't have the answers I'm looking for! I felt that as if maybe by searching more and more, I'll eventually find the answer somewhere online right? Well, it's now my belief that looking these questions online will more likely than not never give you the answer you're looking for.

Think about it, I'm sure you've looked up questions about a career choice, mindsets, skills that you should be pursuing that will net in the most profit, or what you should be investing your money in (or any similar types of questions). Can you recall what the clear answer was? Probably not, because there were so many opinions (many times presented by some who believe their opinion is fact), that just when you thought "Hey, okay this career sounds promising", the next comment down is something along the lines of "Terrible career, I've worked so and so years in this field and it's nothing but repetition, terrible work life, bad pay". You are constantly getting different answers, and while this is expected as certain people will have different experiences, your question still goes unanswered. For example, I recently delved deeper into

"Most people around this age start asking these types of questions, as they should be. It's the age of discovery, where they really try to find out both who they really are, and how they fit into this world."

the career that I've told myself I am set on, and by the end of my searching, I was frustrated to find just as many negative comments and positive ones. But it was that search that urged me to write this article, and I'll tell you why further down...

Continue reading at:

<https://www.linkedin.com/pulse/dont-say-just-do-nathan-gabriel>

Construction Supply Chains Critical in the Wake of Destruction

BY: BRANDON DALEY

With the news of hurricanes Harvey and Irma, residents flocked to their local Home Depot and Lowe's stores to compile necessities for the predicted inclemency. While the spike in demand yielded considerable sales for these home-improvement outlets, providing customers with the necessary construction materials places considerable strain on their supply chains.

Stores must reopen quickly as those with damaged homes move from materials in preparation of the respective hurricanes to the tarps, drywall, and window ACU's (air conditioning units) that will commence the healing and rebuilding process. Then homeowners will move outdoors, resurrecting fences and getting the tools necessary for a full property restoration.

Home improvement companies need to be ready. And they have been. All of Lowe's store locations have reopened in the state of Florida while The Home Depot has specific distribution centers primarily supporting the impacted communities (Kaplan). No shortages of supplies have occurred as of yet despite the higher demand for rebuilding products, but are these efforts sustainable? And can they make supplies last uninterrupted?

Time will tell as restoration and rebuilding becomes tricky when the legasee kicks in. The road to recovery is prolonged by government efforts and the slow process of approving insurance checks. Private insurers dictate how much the homeowners will ultimately receive, which goes a long way toward the extent of the rework and rebuild a homeowner can plan for (Kaplan).

But with thousands of homes needing some repair done, a retailer's success is especially contingent upon its sourcing initiatives and how well the company can keep its shelves stocked. Extreme cases like these demand extraordinary communication between the regional warehouses and company suppliers as product is moved around.



With families like these hit by hurricane hardship, construction companies will scramble to stitch their lives back together.

This is the reason Home Depot has yet to really sell its

Works Cited:

Banker, Steve. "ISM Analyzes the Future Supply Chain Impacts from Hurricane Harvey." *Forbes*, 7 Sept. 2017, Web.

CNN.com. Harvey Aftermath: Houston 'Open for Business'; Other Cities Suffering. 1 Sept. 2017.

Kaplan, Deborah Abrams. "Hurricanes Irma and Harvey Put the Construction Supply Chain to the Test." *Supply Chain Dive, Industry Dive*, 19 Sept. 2017. Web

'While retailers can do their best to prepare for the future, the interconnected nature of the supply chain means that the hurricane frenzy will leave some impact.'

supply of drywall. A company is only as good as its customers, and with over 700,000 FEMA (Federal Emergency Management Agency) claims still in the works, home restoration is few and far between. Consequently retailers have begun purchasing materials to store in their distribution centers, materials like lumber, doors, roofing, and windows to get the American people back on their feet (Kaplan). And because recovery times are staggered retailers and their warehouses must be ready to redeploy product based on their supply and demand data. Doing so will make retailers better equipped to manage their inventory once FEMA claims are approved and the real work begins.

While retailers can do their best to prepare for the future, the interconnected nature of the supply chain means that the hurricane frenzy will leave some impact. The ISM (Institute for Supply Chain Management) recently released a report surveying members of the Manufacturing and Non-Manufacturing Business Survey Committees regarding Harvey's impact. The responses indicated that 67% of supply managers surveyed expect input material prices being somewhat negatively impacted while 27 of 36 industries are reporting potential commodity shortages. Meanwhile, "56% of respondents believe supplier deliveries will be at least somewhat negatively impacted over the next three months" underscoring the importance of vendor relationships now and into the future (Banker).

Only time will tell if home-improvement stores are up to the test, but in proactively preparing for the recovery efforts, the healing will be much smoother for both the business and the customer.

Ma Making Moves: Alibaba Acquires Majority Stake in Logistics Affiliate

BY: KEVIN RESHAMWALA

Works Cited:

Abkowitz, Alyssa. "Alibaba Takes Control of Logistics Business Cainiao as It Seeks Global Expansion." *The Wall Street Journal*, Dow Jones & Company, 26 Sept. 2017, Web.

Webb, Jonathan. "Alibaba Takes Controlling Stake in Cainiao And Will Invest \$15 Billion In Global Logistics." *Forbes*, Forbes Magazine, 28 Sept. 2017, Web.

Wieczner, Jen. "Alibaba: Here's Why Our Mind-Blowing Numbers Are Real." *Fortune*. Web.

E-commerce, the buying and selling of goods and services over the Internet, originally started as a convenient way of business, but has now morphed into a global game. It is a game that is constantly changing because of its players. One of its biggest players, Jack Ma, is leading the charge; his e-commerce giant, Alibaba Group, recently decided to acquire a controlling 51% stake in its logistics affiliate Cainiao. On the surface it might appear to be any old acquisition, but this move could have a significant impact on Alibaba's business and global reach.

When consumers talk about Alibaba, they are usually referring to AliExpress, its vast e-retailing business that spans the entire globe. Ever since its inception in 2010, AliExpress has taken the global marketplace by storm and essentially become the "Amazon of China." Other Alibaba affiliates offer a variety of resources such as cloud computing and financial services, as well as online platforms for businesses to interact with consumers.

However, the main affiliate in question, Cainiao, fuels China's e-commerce sector with its unique logistical services. It is a data platform operator that "helps online merchants choose from among 15 delivery firms by providing information on cost and delivery time" (WSJ). Overall, Cainiao utilizes data insights and algorithms to execute about 57 million deliveries per day, more than triple the amount that UPS and USPS make on a daily basis. More

importantly, the acquisition is part of a larger move by Alibaba to invest \$15 billion in developing a worldwide logistical framework.

In the grand scheme of things, these moves will prove to be very beneficial for Alibaba's future. The massive Chinese market is under its control, so the company needs to squeeze out every dollar it can. To put it in perspective,



almost 670 million people use the internet in China and Alibaba represents 86% of the mobile shopping done in the country (Fortune). Furthermore, this expansion can pave the way for optimal delivery efficiency, with Alibaba aspiring to "deliver anywhere in China within

24 hours and anywhere in the world within 72 [hours]" (Forbes). Making this type of technological investment can improve the online shopping experience for average customers, who are turning to e-commerce in droves.

Moreover, the acquisition and investment signal a sense of urgency on part of Alibaba. The company recognizes the growing influence of Amazon on the global marketplace, so it needs to act swiftly before it loses too much ground. Especially with the advent of Amazon Prime, it is imperative for Alibaba to bolster its logistical capabilities. Additionally, a portion of the investment is intended to develop Amazon-esque warehouses with "robot sorting and fulfilling merchandise" (WSJ). While Amazon dominates the North American market, Alibaba is putting itself in a position, with this move, to expand across all of Asia.

All in all, Jack Ma has indeed made a very thoughtful and calculated chess move by acquiring a majority stake in Cainiao. Not only does he gain an additional seat on the company board, but also an advanced logistical network that can put Alibaba up there with Amazon as one of the largest e-retailers across the globe.

"...the acquisition and investment signal a sense of urgency on part of Alibaba. The company recognizes the growing influence of Amazon on the global marketplace, so it needs to act swiftly before it loses too much ground."

Building a Better Bike-Sharing Program: Ofo and BASF

BY: KIERAN WILLIAMS

In a September 26, 2017 news release, BASF, a German chemical company, announced that it will be creating a two-layer tire system for Ofo, a Beijing based station-free bike-sharing platform. Founded in 2014, Ofo is the largest station-free bike-sharing platform with over 100 million users across the world. Unlike other bike-sharing platforms which require specific pickup and drop off stations for their bikes, Ofo uses GPS technology and an easy-to-navigate app which allows users to pickup and drop off bikes wherever they please, thus eliminating the need for a docking station, an inconvenience of many existing bike-sharing programs. Ofo users open the app, scan the QR code on the back of the bike, receive a lock combination via the app to

Works Cited:

"Frequently Asked Questions." *Ofo*, Ofo, 2017, Web.

"Two-Layer Tire System by BASF Brings Unparalleled Safety and Comfort to Ofo Shared Bikes." *BASF*, Web.

"Elastopan for Bicycles."
BASF, Web.

"Citi Bike: NYC Bike Share
Finally Ready To Launch."
NYC Bike Maps, 15 Apr.
2016, Web.

unlock the bike lock and then are free to ride the bike. At the end of their ride they manually re-lock the lock and are charged for the duration of their ride at the cost of one dollar per hour.

In the New York Metropolitan area, the predominant bike-sharing program is Citi Bike, a privately owned public sharing system serving primarily New York City and Jersey City, NJ. Sponsored by Citigroup and operated by Motivate (formerly Alta Bicycle Share), Citi Bike launched in 2013 and now possesses over 600 docking stations and 10,000 bikes. Contrary to Ofo, where users download an app and pay for the bikes on an as needed basis, Citibike requires annual memberships up front in order to ride. As of February 2017 a yearly pass costs \$163. In New York City where trips are often short and infrequent, many people may not be



willing to pay the annual charge, which could have deterred many potential customers. Ofo has that advantage in that they do not require a membership and only charges per the usage of the bike, a more attractive proposition to many. While a person using a bicycle as a consistent mode of transport may buy their own or commit to the Citi Bike program, Ofo appeals to a different segment of the market: individuals needing sporadic and convenient transportation on a moment's notice. According to the New York City of Transportation statistics, 56% of all automobile trips within the city are under three miles, with 22% under one mile. This illustrates the need for a bike-sharing platform without membership fees as many users may not get their money's worth in a year of sub-three mile trips.

To further add to the value-added features of the Ofo bike, Ofo paired with BASF to create a two-layer tire system constructed from BASF's Elastopan foam for optimal comfort and safety. Elastopan is a multi-component polyurethane system typically used in the production of shoes, but on bicycle tires its anti-slip properties provide riders outstanding surface traction and greater safety. A positive user experience is highly dependent upon the quality of the bike ride and BASF's technology results in a tire that is 30% lighter than normal tires, making the bike easier to handle. As well as being lighter, the tires are significantly more durable than regular tires, puncture proof and hard-wearing as it is three times more resilient than ordinary rubber tires. The value added from the BASF technology means Ofo bikes and tires last longer to the benefit of Ofo without compromising the safety and performance the rider expects.

After several funding rounds in 2017 that has brought the valuation of the company to \$1 billion, Ofo is an exciting company that is still gaining momentum. Ofo is currently operating in over 170 cities with more than 6.5 million bikes, over 25 million rides per day and a total of over 2 billion trips brokered and counting. Ofo has expressed plans of expanding beyond its current operations in China, Singapore, the UK and Kazakhstan to cities in the United States. With competitive advantages in cost, convenience, and safety through technological collaborations with companies such as BASF, Ofo continues to further its position as a leader in the bike-sharing sphere.

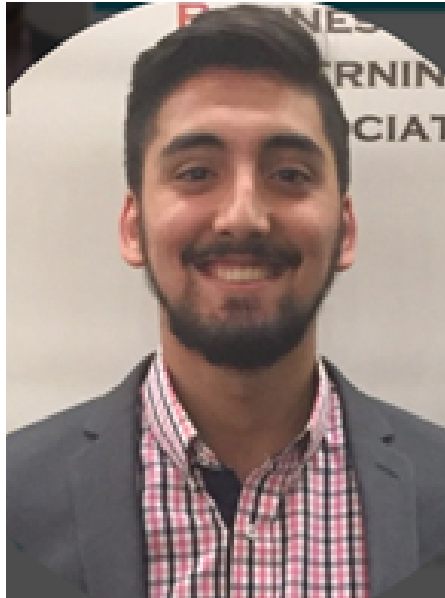
"A positive user experience is highly dependent upon the quality of the bike ride and BASF's technology results in a tire that is 30% lighter than normal tires, making the bike easier to handle."

SCM Student Profiles:

Shehlot (Robbie) Sandhu

BY: ADARSH RANGAN

Biochemistry to supply chain? Robbie Sandhu, the current RUSCA VP of Events, has a unique backstory as to how he got into the Supply Chain Management major. When entering college Robbie had hoped to become a doctor, when he received a call from his cousin. His cousin having finished 12 years of schooling and had called to tell Robbie that he was not enjoying his career...



Q: Was that the moment you started considering supply chain?

A: My older brother, a supply chain professional, had been telling me all about its merits. He professed its value and the opportunities in the market. The switch was pretty abrupt. I stopped [my studies in] Biochem and started Supply Chain Management. Supply chains [are] shaping the world and I really want to be involved.

Q: Supply chain is constantly changing and adapting. Technology is always changing, companies are using new strategies and tactics, and relationship management is more important than ever and Supply Chain is at the center of it. Did this draw you to SCM?

A: Yeah, it's a lot of those things. The whole world is geared toward supply chains; in order to be successful, you need a great supply chain. Look at Google and Amazon. People want things at the tips of their fingers and without the ability to deliver you can't compete in the market. I also like the technology. From the business side cutting costs and maintaining inventory, are critical to making a profit. In the end I like the technology.

Rutgers Business School SCM offers a variety of classes with his interests including: Global Procurement and Sourcing Strategies (799:305), Negotiations (620:350), Supply Chain Environmental Management and Green Purchasing (799:440) and more.

Q: What sort of experience do you have in supply chain?

A: Over the summer I worked at Enterprise Car Rental in an internship centered around logistics. I helped manage a fleet of 300 cars. Their model is that people can rent a car from one location and drop it off at

another. So, I had to manage cars going in and out at multiple locations simultaneously. Every day we sought to achieve a tight lot, or a lot that was empty. We used a lot of CRM or Customer Relationship Management Tools to aid us in serving our clients and optimize our fleet.

Rutgers Undergraduate Supply Chain Management Program is ranked #5 in North America (Gartner, 2016) while nearly 100% of SCM juniors obtain summer Co-Ops or Internships and over 95% of graduating seniors land jobs by July.

Q: Given your experiences and interests, what is your dream career?

A: I want to be in procurement, I like the negotiation, travel and the overall enjoyment. Talking to my people is my specialty, [and getting] the highest quality products for the right price. You need to use various negotiating tactics with the vendors, being aggressive yet compromising at the same time.

Q: Thank you so much for sitting down with me and sharing so much. Now, as VP of events for RUSCA, the premier Rutgers supply chain organization, what is your vision in this position?

A: My vision is to teach students why supply chain is so important and how much fun you can have. The assets of the company are in your hands. My goal as VP of Events is to create events to help them network and educate them about SCM.

Walmart Looks to Drones to Speed Distribution

Works Cited:

Abrams, Rachel. "Walmart Looks to Drones to Speed Distribution." *The New York Times*, The New York Times, 2 June 2016, Web.

Patel, Neel V. "MIT Reveals Tech That Could Prevent Billions in Lost Warehouse Inventory." *Inverse*, 25 Aug. 2017, Web.

BY: MIKE MCGUIRE

The country's largest retailer is back at it again! That's right, Walmart is looking to improve distribution of its products with the help of drones. A drone is an unmanned aircraft that can fly without any human control. The drone will take the position of Walmart workers that scan pallets of inventory. The workers do this manually, which is time consuming and can lead to many mistakes due to human error. The drone would ease this process as it would eliminate manual mistakes as well as scan products quicker.

To begin with, drones could vastly improve the speed of distribution, which relates directly to the supply chain field of work. The faster the inventory is accounted for, means the quicker it can be shipped out. The drone will go down the aisles in the warehouse moving vertically first and then horizontally to make



sure it does not miss any product. This is the exact path the workers that manually account for the supplies in the warehouse use. Forklifts, an essential tool that these workers need to use to reach supplies that are stored all the way to the ceiling, is very time consuming and can be cumbersome. With the use of drones, forklifts would no longer be needed to the extent they are needed now.

Some skeptics may ask the question, how much faster is the drone and is it worth making the switch? The answer to that is a definite yes. After a Walmart distribution center ran tests and evaluated the data, they saw it was significantly quicker "taking 30 images per second" according to Shekar Natarajan, VP of Last Mile and Emerging Science at Walmart, highlighting how drones are more efficient than the traditional use of manpower. It explains that the use of this machine would save weeks, even months of work for employees to individually scan the items. This research could shape the future of inventory and will have an impact in the supply chain field.

So why aren't the drones being used? This is because there is one problem preventing this cheap and hassle-free method. "If you want to use use RFID (Radio Frequency Identification Tags) tags for inventory control, they only work from a very limited range" (Patel). Warehouses would be forced to move every product in order to manually read every product. This would be an immense amount of work, especially in somewhere like Walmart's largest distribution center, which is equivalent in size to about 17 football fields.

"... the use of this machine would save weeks, even months of work for employees to individually scan the items. This research could shape the future of inventory and will have an impact in the supply chain field."

However, new drones have been made and tested that can work from as close as 10 meters away. They are labeled Rfly Drones because their main job is to scan the RFID tags. This potential solution will save businesses an immense amount of money. Walmart was cited to have lost \$3 billion dollars in revenue in 2013 due to mistakes between inventory records and actual stock according to Patel. The Rfly drone would eliminate that financial and physical risk, while also doing a month's work in just one day.



“The Rfly drone would eliminate that financial and physical risk, while also doing a month’s work in just one day.”

Overall, I believe that the use of Rfly drones would be the right way for businesses to run their warehouses due to it moving products around more efficiently. The amount of money there to be saved is very persuading with this method; the speed that the drones work at will help many people especially those in the supply chain field where the costs and savings being dealt with go to the bottom line. Rfly drones are the way forward.

RUSCA EVENTS

General Interest Meetings start biweekly at 9:45pm
at Livingston Campus - Tillett Hall 103A

MARS

Events for October:

10/24: Mars, Inc.

10/26: Global Cold Chain Alliance

1:30-3:30pm, LSC Room 202

10/26-10/27: ISM Women and Leadership Conference

The Palace at Somerset Park



Rutgers University Supply Chain Association



RUSCA's Mission Statement:

To inspire our RBS students into learning more about Supply Chain Management and its opportunities, as well as to serve as an intermediary organization on behalf of the RBS student and support the student in the pursuit of a successful internship, co-op, or full-time offer, most especially for our Supply Chain majors.

Want to know more and stay up to date with RUSCA events?

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