

RESULTFOCUSED

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We live in interesting times...

By Anton Nieuwoudt

September, a month symbolising growth, change and new beginnings. It is a good time to embrace the new life in nature and inject some new energy into our organisations. Many of our counterparts in the Northern hemisphere has just returned from their summer holidays, and it might be an ideal time to tap into their new found energy after a good rest period.

In the supply chain it also marks the start of the busiest time of the year for many supply chains in the buildup to the end of year sales rush. It is the time to re-energise collaborative relationships, and to fine-tune tactics to unlock success.

We live in interesting times. The Syrian conflict is throwing a dark shadow over the immediate horizon. The implications of which will be hard felt in the global economy in various shapes and forms. The most immediate and

direct impact will be the negative impact on the oil price. Despite an abundance of oil supplies - and that Syria is a minor oil producer, at best - the global market for crude has been dominated for a week by worries about the Middle Eastern country. US oil hit a two-year high above \$112 on the Wednesday, after closing below \$104 on Aug. 21, the day that the Syrian military is believed to have used chemical weapons against rebels fighting the regime of President Bashar Assad.

This we know will hit our own economy hard as we are also battling a depreciating currency which spells higher fuel prices and also then the impact on food and eventually inflation and a more tight fisted consumer which doesn't boast good news for the retailers' year-end sales targets. Let's hope and pray that the world leaders can resolve the Syrian issues wisely and swiftly.

In this edition of **RESULTFOCUSED** we look at **Tesla's revolutionary supply chain** with suppliers outside of the conventional automotive supplier universe. The seven sins of **demand forecasting** is discussed, Deepak Chopra talks about **building better leaders** by addressing seven specific needs while we also look at the growth expected in the adoption of **RFID** technology. Finally Dr. Hau Lee talks about **triple-A supply chains** that are agile, adaptable, and aligned to provide companies with sustainable competitive advantage.

*Become a student of change.
It is the only thing that will remain
constant -
Anthony D'Angelo*



INSIDE THE TESLA REVOLUTIONARY SUPPLY CHAIN

By John Hall
(mypurchasingcenter.com, June 2013)

Tesla has placed more than 10,000 of its cars on the road. In the first quarter of 2013 alone, it delivered 4,900 of them.

By every measure, Tesla Motors is having the best year of its decade-long life. Some of their major milestones are:

- 1) In early January, its Model S sedan was named Motor Trend Car of the Year, the first electric vehicle to earn the prestigious award in the magazine's 64-year history;
- 2) During the first quarter of 2013, the Palo Alto, California-based car company outsold every other electric vehicle (EV) on the market, as well as Mercedes S class and BMW 7 models, notching its first quarterly profit in history on revenues of \$561.8 million;
- 3) It's on an aggressive track to produce a record number of cars in 2013; 4) In late May, Tesla shares surged past the \$100 mark for the first time; and
- 4) Days before, the company paid off its Department of Energy loan with a nearly half billion-dollar check – nine years early. (The loan was part of a DOE program to stimulate development of vehicles powered by alternative energy.)

Part of its success is owed to Supply Chain Vice President Peter Carlsson, the ebullient young executive who came to Tesla from NXP Semiconductors, where as Chief Procurement Officer he transformed a purchase organisation from a tactical decentralised entity to a strategic global commodity organisation.

In the company's zeal to design, test and produce cars faster than any auto company in history, Carlsson is helping Tesla imbue the same entrepreneurial and innovative spirit in its supply chain as it does in its groundbreaking vehicle design and performance.

Tesla's Obstacle Course

Tesla's recent good fortunes are tempered with challenges. The general public's fascination with electric vehicles appears to be slipping, in part because of new cleaner burning, higher performance gas-powered vehicles, as well as the higher price point for EVs.

The Model S comes with battery power options that take the vehicle price from a low of \$62,400 to a high of more than \$88,000 (after a \$7,500 tax rebate). Recent high-profile failures of so-called "green energy" companies (including solar power maker Solyndra and green car maker Fisker) haven't helped to stimulate the public's appetite for alternative energy. EVs also face some competition from other emerging non-fossil fuel-burning technologies such as hydrogen and natural gas. Even Tesla finds itself embattled by car dealership organisations fighting the company's efforts to sell directly to consumers, prompting CEO/Cofounder Elon Musk to claim conventional care dealers are disincentivised to push electric vehicles. (A recent statewide poll of Texas consumers found them overwhelmingly in favor of Tesla's plan.)

Still, such challenges have not dissuaded Tesla from plans to ramp up Model S production, build nearly additional 20 retail stores this year, and pursue plans to aggressively grow its network of super-charging stations across the country – and globally (Tesla sells its cars in more than 31 countries).

Part of its determination comes from the confidence it earned during the Great Recession. Add a little serendipity for good measure.

"We started to develop the Model S in the midst of the recession in 2008 and 2009, which gave us a couple of opportunities that would have been more expensive otherwise," Carlsson tells My Purchasing Center. "Our manufacturing facility in Fremont [Calif.] was able to buy during the downturn because of the over-capacity in the industry. We managed to negotiate good deals during the downturn. So we did get a few benefits from that."

The fact that the Model S is able to outsell similar premium gas-powered Mercedes and BMW models in the same price ballpark also has shown Carlsson that Tesla can compete outside the EV niche.

"It's interesting because you can look at our vehicle and on one hand ask, 'Is it just an electric vehicle that competes in the EV market? In that case, you need to compare it to the [Nissan] Leaf and the [Chevy] Volt, which is to some extent true,'" Carlsson adds. "But it's also a premium vehicle that probably competes well in the same price range as BMW, Lexus and Mercedes. The interesting aspect is during

the first quarter of this year, we outsold both of those categories.

Of course, Carlsson admits that it helps Tesla is headquartered in California, home to so-called "early adopters" and higher income buyers. "In the Northern California market, we do see people who normally would buy a vehicle in maybe the \$45,000-\$55,000 range are willing to pay an extra \$10,000-\$15,000 to get a Model S," he says. "So it kind of goes a little bit out of the conventional wisdom of what people are willing pay. Whether that will be the case for the rest of the U.S. and the world is too early to say."

'Rocket Science'

People may argue that building cars isn't rocket science, but at Tesla's sister company SpaceX, which Musk also heads and founded in 2002, it's all rocket science. SpaceX is the leading designer, manufacturer, and launcher of the world's most advanced rockets and spacecraft. Its Falcon launch vehicles and Dragon spacecraft have made several missions to the International Space Station.

To what extent the company shares its technological expertise in Tesla's cars and the EV powertrain components it makes for shareholder-partners Toyota and Daimler isn't known. But Carlsson openly admits that each company has the same entrepreneurial spirit.

"We're also trying to look at the traditional tiered structure of this industry and we're looking at where it makes sense to us and where would we like to have a different setup."

Peter Carlsson, Supply Chain Vice President at Tesla

As one recent Tesla job description for a product lifecycle coordinator on the Web notes, "Our world-class engineering teams operate with a non-conventional automotive product development philosophy of high inter-disciplinary collaboration, flat organisational structure and technical contribution at all levels."

“There is a certain synergy between the two,” Carlsson says. “For example, we may explore how to build IT systems around what we’re doing to our mutual benefit. There also may be a certain amount of sharing of supplier information and ideas.” On the procurement side, however, there are very few commonalities. “It’s different when you’re buying and building one rocket or satellite per month versus 500 vehicles per week,” he adds.

Still, Tesla is innovating in ways conventional car makers aren’t.

Last year, for example, Tesla began building its solar-powered charging stations in certain parts of the country to allow it customers to “refuel.” (The 85 kWh Model S has an EPA-rating of 265 miles, or 426 kilometers, between charges.)

The Model S alone has more than 250 patents, many pertaining to the company’s proprietary battery technology, but some are for its sophisticated “infotainment” system, which features an unusually large touch-screen in the front console that controls everything from media and communication to cabin and vehicle functions.

Building Its Own Supply Chain

Carlsson tries to apply the same energy and innovation to his procurement and supply chain management role at Tesla. Prior to his work at NXP, Carlsson was Chief Procurement Officer at Sony Ericsson, where he worked for 13 years in various roles, one of which entailed building and implementing Ericsson’s framework for supplier quality assurance.

In some ways, procurement at Tesla works no differently than at any other company. But like its speed demon sister SpaceX, the company is on a fast track to not only innovate, but compete on the world stage.

“Procurement is always procurement,” he says. “But we are constantly mindful of how we, being the smallest auto manufacturer in the world, can still be competitive in a large-scale industry. That goes from looking at commodities in different ways. We go for what works, as well as ways we can benefit from the same economies of scale as other car makers.” It helps having a partnership with Daimler and Toyota, through which Tesla can benefit in terms of basic car part purchases, he adds.

But there are other procurement needs unique to Tesla. One example is the Model S infotainment system, which the company designed from the ground up.

“We’re also trying to look at the traditional tiered structure of this industry and we’re looking at where it makes sense to us and where would we like to have a different setup,” he says. “With our electronics and infotainment system, we could have taken the traditional car maker approach and designed it around a core

system from a supplier such as Johnson Controls or Bosch. We decided to design and build our own system because we have both the hardware and software engineering capability.”

“Procurement is always procurement,” he says. “But we are constantly mindful of how we, being the smallest auto manufacturer in the world, can still be competitive in a large-scale industry. That goes from looking at commodities in different ways. We go for what works, as well as ways we can benefit from the same economies of scale as other car makers.”

Peter Carlsson, Supply Chain Vice President, Tesla

In short, Tesla can exploit a lower tier for commodity items without the need to reinvent the wheel, so to speak, “and avoid significant markups and at a lower cost,” while focusing more unique efforts on its own designed components.

Unlike other car makers, Tesla also has the unique opportunity to work with suppliers outside the conventional auto supply universe. Take the Model S engine, for example. “When you push its accelerator, you could get several hundred to 1,000 amps of current,” he says. “So we would be sourcing suppliers in the realm of power distribution and high current or high

power electricity applications.”

As a result, Tesla began developing its own unique supplier base for key components of its vehicles. “We’re constantly looking at the industry from different angles to see how we can find and build up a really competitive supplier base in the field that not only makes us a bit unique, but also gives us an opportunity to be more competitive in this field,” Carlsson.

As the only major car company that designs, tests and builds its cars in California, Tesla enjoys one key advantage over its competitors. “We’re very close to our biggest market and we are very close to our development, which means we can do drive, design and technology implementation really fast,” he says.

But the downside is being 2,000 miles away from the heart of the conventional car manufacturing and supplier hub – the Midwest.

“We have to some extent a logistics disadvantage that we need to offset and we need to find different ways of overcoming that,” says Carlsson. One such way is developing relationships with suppliers willing and able to meet Tesla’s unique component demands.

“We’re trying to develop vehicles much faster than anyone else,” he says. “We really want to be able to develop vehicles in a 2 1/2-year timeframe. To accomplish that, we need a supplier base that is faster and more agile than most automotive companies are used to, which comes down to everything from industrialisation to tooling leadtimes. Because if we don’t have a supplier base capable of doing that, it certainly would slow us down.

“We’re telling our suppliers that both parties need to think proactively and work hard at significantly reducing tooling leadtimes,” he adds, “making sure they’re able and willing to put together engineering support teams for us willing to work with the speed and flexibility we’re asking for.”

The plan, so far, has been a success. Tesla developed an entirely new and dedicated base of nearly 300 suppliers for the Model S. “The majority have really stepped up and once we got the management teams of the suppliers engaged with what we’re trying to do, it’s worked out in a much better way,” he says.

Of course, Tesla’s strong performance during and after the recession, capped by the Motor Trend accolades, has helped.

“Five years ago when we were knocking on doors, not everyone was interested in working with us,” Carlsson says. “They thought we were too risky, had too small volumes, or any number of other reasons. I don’t think we’re saddled with that anymore. I think the suppliers who were early adopters and who were really willing to take a bit of a risk and bet on us, probably have a profile that fits us a little bit better than a more conservative type. We’re the risk takers.” - RF



SEVEN SINS OF DEMAND FORECASTING

By Lora Cecere, Founder and CEO of Supply Chain Insight
(supplychainshaman.com, May 2011)

A supply chain conference in Dallas was a good time for me to reflect on the history of demand planning. In my opinion, the greatest sin of all is that we have spent thirty years developing forecasting processes that are largely not used or trusted by the organisations that they serve.

Sin #1 - Not Using the Statistical Forecast to Drive Continuous Improvement.

I have never worked with a company that could not improve its forecasting through better use of statistics. However, most companies are skeptical. Inherent in the DNA of the firm, there are “experts” that believe that they know the business better than any statistical package ever can. Given that a forecast is always wrong, and the forecasting process is fraught with political issues, companies struggle with how to use and gain acceptance for statistical forecasting.

While benchmarking the forecast is difficult (reference blog post Trading Places), measuring continuous improvement through Forecast Value Added (FVA) analysis is a helpful, and easier method, to drive continuous improvement. In most FVA analysis presentations that I have seen lately, the statistical forecast is improving the naive forecast—forecast made based on prior month’s order history—by 3-5%. Similarly, the lack of control of managerial and discipline in the consensus forecasting process is reducing forecast accuracy by 2-5%. The technique allows companies to measure, improve and better drive forecast accuracy, and gain business alignment and support for the effort by dollarising the impact of the forecast error. For example, one of the speakers at the conference shared that a 2% improvement in forecast accuracy was worth two headcount in his business. If the forecast could be improved by 2%, he

could reduce the time spent on order expediting. Bottom line: Don’t look at forecast accuracy in isolation. (For those of you not familiar with the technique, I think that the white paper written by SAS is very useful.

Sin #2 - Only owning part of the forecast.

To use a baseball analogy, most demand planning teams are in the “outfield.” They “catch the forecast” from sales and marketing without owning the entire process. They catch and throw the forecast across functions without value-added analysis. Whereas, best in class teams, own the entire forecast. They know the baseline forecast and work on driving root cause analysis to improve demand shaping programs – price, promotions, marketing events, new product launch, and sales incentives. What does the difference look like? For one company that I worked with over the past two years, this change was worth 5 million dollars in the reduction of obsolescence. Bottom line: Move out of the outfield and back to home plate to throw the ball to ensure that the organisation can hit homeruns.

Sin #3 - Misuse of Downstream Data as an Input.

When running out a product—to prevent obsolescence—be careful in the use of downstream data. Realise that you are pushing into the channel and that you do not want to drive replenishment. If you don’t have this discipline, you will recreate the Green Volvo Story. Remember that one? Hau Lee tells the story, “Volvo was awash in chartreuse green cars. Despite trying every option at the distributor to push the cars, but the cars were not selling. So the company decided to price them at a significant price reduction to move them and reduce inventory. However, this strategy was not communicated across the organisation to demand-planning. As a result, when the green Volvos sold, the sales orders triggered a forecast and the forecast consumption logic triggered replenishment and the factory cranked back up the production lines to make green Volvos. I was telling this story a couple of years ago to a company that made women’s intimate apparel, and they started laughing incessantly. I finally stopped and asked why? In between uncontrollable laughter, the company shared that their Green Volvos were leopard skin fur thongs. So this sin goes across all industries from cars to lingerie.... When pushing SLOB, turn off the knob to use downstream data, and be careful to not let orders drive replenishment. Likewise, downstream data should be used to trigger the completion of promotional

replenishment. Sensing when to end a promotion is also essential to eliminating SLOB (Slow and Obsolete Inventory). Bottom line: Design the forecasting process and the use of the output of the forecasting process from the outside-in. In driving accurate replenishment, there is no substitute for knowing true channel behavior.

“In my opinion, the greatest sin of all is that we have spent thirty years developing forecasting processes that are largely not used or trusted by the organisations that they serve”.

Lora Cecere, Founder and CEO,
Supply Chain Insights

Sin #4 - A Project not a Program.

A frequent question that I am asked is “how can I implement demand planning faster?” I will answer the question, but then I will ask, “Aren’t you shooting for the wrong goal? Shouldn’t your goal be to implement demand planning well not fast?” One of the companies that I admire, that has proven year over year to be one of the great leaders in the use of SAP APO DP is General Mills. When I wrote a case study of General Mills implementation as an AMR analyst, many companies pushed back and asked why I picked the General Mills case study to showcase. The reason was simple. They did not implement demand planning the fastest, they did it the best. For them, it was a program. It was valued. They wanted to get it right. It was not a project to quickly implement.

Sin #5 - Not all Items are Created Equally.

In the words of one participant in the workshop, “get to know the DNA of your item.” A few years ago, I was working with a company that made baby formula. Their most important and the lowest volume item was samples sent to the hospitals for new mothers. These samples were distributed on maternity wards at the birth of the baby to promote product trial. A successful trial could drive a couple of years of consumption through the life of the child through their years as a baby. So, a forecast

error on these products was worth substantially more than a forecast error on turn volume.

Sin #6 - Forecast with the End in Mind.

This may sound simple, but it is a sin that is frequently made. While many companies have set up their forecasting systems to forecast what manufacturing needs to make when, the greater opportunity is to model what the channel is going to sell and when. The company then translates these demand requirements to internal and external manufacturing locations. It is not as easy as just modeling the selling unit at the retail chain level. This is usually too low of a level to forecast –insufficient data to be significantly relevant—for the forecasting process. Likewise, with this increased need for transportation forecasting visibility, there is a need to forecast transportation requirements; and, to use channel data to determine distribution requirements. It is a proven fact that forecast consumption logic and one number forecasting is not sufficient. Instead, multiple forecasts need to be translated into a demand visibility signal for the corporation.

Sin #7 - Arrogance. Not serving the Organisation.

At the conference, the SVP of Radio Shack gave a presentation on what makes a great demand planning group. His words of wisdom were “be humble” and “serve the organisation.” In his experience, when the demand planning groups become arrogant—a “know it all group” that polices the forecast—everyone loses. - RF



BUILDING BETTER LEADERS

By Deepak Chopra (deepakchopra.com, August 2013)

Leadership is a hot topic and will always be one. We seem to linger in a perpetual leadership vacuum. Today's Presidents and CEOs, generals and coaches, don't stand in comparison with the great

leaders of the past - or so we are told - and in times of crisis, people cry out for someone who can show them a way to escape the looming threat. There's a general myth that leaders are born rather than made, that somehow Nature produces a peculiar species of human being who is bigger, more powerful, smarter, braver, and more charismatic than the rest.

The most common cause of leadership failure is ego, which means that someone is looking out for number one rather than the group.

But waiting for such a rare bird is futile, for there are many crises that never find the natural born leader it needs. The real challenge in leadership is to find a way to build leaders. The main way that business schools and government departments attempt this is by studying the past. Learning from history has its advantages, naturally. There are lessons to be learned about how World War II was won, why the Chicago Bulls were such a successful basketball team, and why Wall St. banks, led by greed and short-sightedness, created the financial collapse of 2008.

But today's crises never completely mirror yesterday's, and it would be better in the first place to build leaders who can prevent crises before they arise. In my view, a great leader is inspiring, uplifting, a uniter of differences, and someone who brings out the best in human aspirations. I named this model "the soul of leadership" and set out to see if leaders with a soul could be trained.

Knowing that business, politics, and the military are not spiritual enterprises, I didn't formulate the training along "soft" or idealistic lines. Instead, I used a "hard" criterion: what groups actually need. If you aspire to be a great leader, the first requirement is that you look and listen, so that you can find out the true needs that a situation demands to be fulfilled. There are seven such needs:

1. Safety, security

Situations of threat and instability. People feel insecure. Discontent is in the air.

You can see nervous faces, feel the prevailing anxiety. Who is going to make the situation feel safer?

2. Achievement, success

Situations of unrealised achievement. People feel unsuccessful. They want to be more productive, but there's not enough fire or passion. Who is going to step up and provide the motivation so sorely needed?

3. Cooperatio

Situations that are incoherent and fragmented. There's no team spirit. The group disintegrates into bickering and petty wrangling. Meetings go on forever but reach no conclusion. Who's going to be the glue that brings coherence to the situation

4. Nurturing, belonging

Situations mired in bad feeling and apathy. Everyone is going through the motions, doing what they need to do but inside feeling totally disengaged. The atmosphere is stale and routine. There's no personal support or trust. Who's going to bring heart to the situation and make others feel that they belong?

5. Creativity, progress

Situations dominated by old solutions and stale ideas. People feel stymied. The atmosphere has no creativity; it feels like yesterday's news. Everyone agrees that something new is needed, but all that emerges are small variations on the status quo. Who's going to bring the spark of creativity to the situation?

6. Moral values

Situations that are spiritually empty and corrupt. The weak feel hopeless, the strong are cynically taking advantage. People talk about righting wrongs and bringing back the right values, but no one knows where to start. The future feels like wishful thinking; the present is oppressive and suffocating. Who will bring hope and a renewed sense of innocence?

7. Spiritual fulfillment

Situations that symbolise the human condition. People are asking the big questions: Who am I? Why am I here? Many are seeking for God. There is talk of a higher reality, yet faith is lacking. Who can bring the light and demonstrate that holiness is a living reality?

Having looked and listened, you will know the situation you are in and the need that is crying out to be fulfilled. As you can see, the "hard" criterion that shaped this model of leadership eventually leads to moral values and spirituality, because in reality those aren't "soft" needs. Every human being has a yearning for them. But

unless the basic needs are fulfilled, appealing to a group's ideals is usually futile.

The most common cause of leadership failure is ego, which means that someone is looking out for number one rather than the group. Ego is a legitimate basis for action - it's the second need above safety and security. We all want the good things in life; our instinct is to provide for "I, me, and mine." But the collapse of Wall St. and many disastrous wars have resulted when leaders get stuck on ego. You can be a great leader, with all the rewards this carries, while still serving the needs of the whole group. In essence, that's what the soul of leadership is all about. - *RF*



RFID TECHNOLOGY RAPIDLY GROWING IN SUPPLY CHAIN IMPORTANCE

By Brian Knotts
(aptricity.com, August 2013)

It may be a bit of a stretch, but it's not altogether unreasonable to suggest that Max, a sickly 14-year-old poodle who recently was dognapped and held for ransom, owes his life to a post-World War II Soviet spy technology developer.

Max's owners refused to pay the \$400 ransom that was demanded, and the old dog simply was turned loose on the streets. That's where a kind soul found him and took him to a local vet where the Radio Frequency Identification (RFID) tag embedded under his skin years ago was read, leading to his owners being called and Max being returned to them.

It's safe to say that RFID technology, the precursor of which was developed by KGB technicians in 1945, has been slow to catch on. Even though it has been commercially available since the 1970s, only in the past decade or so has it begun to find significant uses beyond lost pet identification. In 2011, it was still just a \$6.4

billion-a-year industry. Last year, it grew an impressive 17 percent to \$7.7 billion.

But hold on to your hats, because the industry is expected to grow to around \$20 billion by 2015 (more than a 200 percent growth rate over five years). That is, in large part, because corporate executives with supply chain management responsibility are figuring out lots of new, effective ways to use RFID technology to reduce costs.

Everyone knows that airlines are rapidly switching to RFID-tracking of bags (No more lost baggage!), and that governments around the world now are issuing new passports embedded with RFID chips. But ABI Research expects supply chain management organisations' use of RFID technology to lead RFID growth at a rate of 37 percent over that same five-year period. The technology is finding all sorts of new uses in the manufacturing and purchasing process, in distribution and the warehouse, and even in the motor pool.

From Motor Pools to the Medical World, RFID Coming Into Play

That's right, the motor pool. Companies are now using RFID transmitters in both the fuel tanks of their trucks and other corporate vehicles and in the nozzle of their private gas and diesel pumps to reduce fuel waste and fuel theft by employees. Companies long ago stopped paying workers to sit all day and all night by their motor pool gas pump. But that opened the door for unethical employees to begin topping off the tanks of their personal vehicles after filling up the company truck (motor pool pumps often are located in out-of-way locations for safety reasons, but that makes employee theft all the easier). But the newly innovated RFID-powered pump control system accurately tracks how much fuel is pumped into each vehicle, eliminating any opportunity for employees to redirect some fuel to their own cars.

Fresh food distribution companies also are biting into RFID technology in a big way. Advances in the technology now make it possible for certain kinds of RFID signals to pass through fruits, vegetables and raw meats, all of which contain lots of water. That wasn't possible before because water absorbs and effectively blocks older types of RFID signals.

The medical world also is investing heavily in cost-saving RFID technology. Hospitals are using it to keep tabs on patients' movements throughout hospitals, to better manage their inventories of beds and equipment, and to track medicines given to each patient. Beyond that, RFID tracking allows hospitals to work with drug makers and medical supply producers in lowering costs. By tracking and sharing more precise data on usage of everything

In 2011, it was still just a \$6.4 billion-a-year industry. Last year, it grew an impressive 17 percent to \$7.7 billion. But hold on to your hats, because the industry is expected to grow to around \$20 billion by 2015.

from prescription drugs to surgical gloves and gowns, the companies involved can more cost effectively manage the production, shipping and storage of those expensive, and in some cases potentially dangerous items.

All That RFID Data Needs Management

Of course, the rapid spread of RFID technology into supply chain operations means companies also need to respond quickly by acquiring new data and supply chain management applications. That's because RFID is a technology, not an application. RFID tags and readers should be understood as frontline tools that, apart from applications and systems designed to accept and process RFID data, are about as useful as a hammer in a lifeboat in the Pacific Ocean.

Given industry's – and the world's – rapid shift to mobile and Wi-Fi communications environments, it is imperative that supply chain companies adopting RFID technologies also adopt sophisticated yet easy-to-use, easy-to-maintain, and easy-to-customise mobile software applications.

After all, companies need every individual along the supply chain empowered with the command visibility they need to do their jobs, serve customers and grow revenues. - *RF*



THE TRIPLE-A SUPPLY CHAIN

By Dr. Hau L. Lee
(hbr.com, October 2004)

During the past decade and a half, I've studied from the inside more than 60 leading companies that focused on building and rebuilding supply chains to deliver goods and services to consumers as quickly and inexpensively as possible. Those firms invested in state-of-the-art technologies, and when that proved to be inadequate, they hired top-notch talent to boost supply chain performance. Many companies also teamed up to streamline processes, lay down technical standards, and invest in infrastructure they could share. For instance, in the early 1990s, American apparel companies started a Quick Response initiative, grocery companies in Europe and the United States touted a program called Efficient Consumer Response, and the U.S. food service industry embarked on an Efficient Foodservice Response program.

All those companies and initiatives persistently aimed at greater speed and cost-effectiveness—the popular grails of supply chain management. Of course, companies' quests changed with the industrial cycle: When business was booming, executives concentrated on maximising speed, and when the economy headed south, firms desperately tried to minimise supply costs.

As time went by, however, I observed one fundamental problem that most companies and experts seemed to ignore: *Ceteris paribus*, companies whose supply chains became more efficient and cost-effective didn't gain a sustainable advantage over their rivals. In fact, the performance of those supply chains steadily deteriorated.

For instance, despite the increased efficiency of many companies' supply chains, the percentage of products that were marked down in the United States rose from less than 10% in 1980 to more than 30% in 2000, and surveys show that consumer satisfaction with product availability fell sharply during the same period.

Evidently, it isn't by becoming more efficient that the supply chains of Wal-Mart, Dell, and Amazon have given those companies an edge over their competitors. According to my research, top-performing

supply chains possess three very different qualities. First, great supply chains are agile. They react speedily to sudden changes in demand or supply. Second, they adapt over time as market structures and strategies evolve. Third, they align the interests of all the firms in the supply network so that companies optimise the chain's performance when they maximise their interests. Only supply chains that are agile, adaptable, and aligned provide companies with sustainable competitive advantage.

The Perils of Efficiency

Why haven't efficient supply chains been able to deliver the goods? For several reasons. High-speed, low-cost supply chains are unable to respond to unexpected changes in demand or supply. Many companies have centralised manufacturing and distribution facilities to generate scale economies, and they deliver only container loads of products to customers to minimise transportation time, freight costs, and the number of deliveries. When demand for a particular brand, pack size, or assortment rises without warning, these organisations are unable to react even if they have the items in stock. According to two studies I helped conduct in the 1990s, the required merchandise was often already in factory stockyards, packed and ready to ship, but it couldn't be moved until each container was full. That "best" practice delayed shipments by a week or

more, forcing stocked-out stores to turn away consumers. No wonder then that, according to another recent research report, when companies announce product promotions, stock outs rise to 15%, on average, even when executives have primed supply chains to handle demand fluctuations.

When manufacturers eventually deliver additional merchandise, it results in excess inventory because most distributors don't need a container load to satisfy the increased demand. To get rid of the stockpile, companies mark down those products sooner than they had planned to. That's partly why department stores sell as much as a third of their merchandise at discounted prices. Those markdowns not only reduce companies' profits but also erode brand equity and anger loyal customers who bought the items at full price in the recent past (sound familiar?).

Companies' obsession with speed and costs also causes supply chains to break down during the launch of new products. Some years ago, I studied a well-known consumer electronics firm that decided not to create a buffer stock before launching an innovative new product. It wanted to keep inventory costs low, particularly since it hadn't been able to generate an accurate demand forecast. When demand rose soon after the gizmo's launch and fell sharply thereafter, the company pressured vendors to boost production and then to slash output. When demand shot up again a few weeks later, executives enthusiastically told vendors to step up production once more. Five days later, supplies of the new product dried up as if someone had turned off a tap.

The shocked electronics giant discovered that vendors had been so busy ramping production up and down that they hadn't found time to fix bugs in both the components' manufacturing and the product's assembly processes. When the suppliers tried to boost output a second time, product defects rose to unacceptable levels, and some vendors, including the main assembler, had to shut down production lines for more than a week. By the time the suppliers could fix the glitches and restart production, the innovation was all but dead. If the electronics company had given suppliers a steady, higher-than-needed manufacturing schedule until both the line and demand had stabilised, it would have initially had higher inventory costs, but the product would still be around. - **RF**

I observed one fundamental problem that most companies and experts seemed to ignore: Companies whose supply chains became more efficient and cost-effective didn't gain a sustainable advantage over their rivals. In fact, the performance of those supply chains steadily deteriorated.

Note - All credit goes to the particular author and/or publication of the articles shared in this document.

Result focused logistics and supply chain advisory services

By Anton Nieuwoudt / Niels Rudolph

dasRESULTAT is a results focused logistics and supply chain management advisory company with greater than 30 years combined experience in various functional areas of logistics and supply chain management across diverse industries.

Our primary objective is to support our clients to reduce operational costs and increase their service offering to their clients through optimising their supply chain, by offering a wide range of services based on our own practical experience.

dasRESULTAT stands under joint leadership of Anton Nieuwoudt and Niels Rudolph.

Leadership

Anton has more than 12 years experience in logistics- and supply chain management across various industries. As a part time lecturer at the Department of Transport and Supply Chain Management at the University of Johannesburg, he considers himself privileged to be able to shape and guide the supply chain professionals of tomorrow.

Prior to co-founding dasRESULTAT as a boutique logistics and supply chain advisory company, Anton was at Accenture where he was involved in various projects in the Retail, Mining, FMCG and Energy sectors. Here he was able to expand and apply his fulfillment, supply chain management, supplier management, project management and business consulting expertise.

Anton also worked at DB Schenker where he gained experience in integrated logistics management, spare parts logistics as well as inbound- and outbound logistics solution implementation.

Anton holds a Bachelors degree in Marketing from the Rand Afrikaans University and a Masters degree in Logistics Management from the University of Johannesburg.

Niels has close to 20 years experience in logistics- and supply chain management mainly within the 3PL industry.

Prior to co-founding dasRESULTAT as a boutique logistics and supply chain advisory company Niels founded ORAscM as a specialised logistics consultancy company. He also worked at DB Schenker

and PriceWaterhouseCoopers in Germany as a project consultant.

Niels spent the largest part of his career at DB Schenker in various roles in Germany, Singapore, Malaysia and South Africa. During his last role at DB Schenker in South Africa, Niels was responsible for logistics development, reporting directly to the CEO. Here he applied and expanded his knowledge to develop logistics solutions across the local automotive, high-tech and retail industries.

Niels holds a Diplom Betriebswirt (BA) from Staatliche Berufsakademie, Mannheim (Germany).

Functional experience

Our functional experience include among others warehouse design & management, transportation management, inventory management, demand planning, supply planning, supply chain planning, supplier relationship management and project management.

Industry exposure

We have had exposure to industries such as retail, automotive, consumer goods and services, petrochemical, mining and defense aerospace.

Core offerings

Through our core offerings we can support our clients to achieve strategic, tactical and operational results. These offerings cover areas such as Strategic Supply Chain Planning, Fulfillment, Sourcing & Procurement, and Project Execution.

Credentials

Since founding the company in the fourth quarter of 2012 we've been able to support our clients in various engagements.

Our primary engagement has been with a leading global third party logistics company. Here we've been tasked to support them in the turn-around of their contract logistics department and are currently involved in establishing a transportation control tower capability.

Secondary engagements included a warehouse performance assessment at the Cape Town operations of a global apparel company, supporting a logistics service transition at a German automotive manufacturer, providing warehouse implementation support for an agricultural equipment manufacturer and developing a solution for on-site logistics for a major construction company. - **RF**

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dasRESULTAT is a result focused logistics and supply chain management advisory company.

We partner with our clients to identify and unlock practical and sustainable solutions.

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