

Intro ([00:01](#)):

Welcome to TEK TOK digital supply chain podcast, where we will help you eliminate the noise and focus on the information and inspiration that you need to transform your business impact supply chain success and enable you to replace risky inventory with valuable insights. Join your TEK TOK, host Karin Bursa, the 2020 supply chain pro to know of the year with more than 25 years of supply chain and technology expertise, and the scars to prove it Karin has the heart of a teacher and has helped nearly 1000 customers transform their businesses and tell their success stories. Join the conversation, share your insights and learn how to harness technology innovations to drive tangible business results. Buckle up it's time for TEK TOK powered by Supply Chain Now.

Karin Bursa ([01:11](#)):

Welcome supply chain, movers and shakers! I am Karin Bursa, and I want to thank you for tuning in to today's episode of TEK TOK, the digital supply chain podcast. On this episode, we're going to tap into the genius of Craig Ablin. Who's been a long-term friend and led some of the world's most interesting supply chains as he helped them to harness new technology, improve their business practices and processes, and serve their customers well.

In fact, Craig is going to take us through his thoughts on Six Levers that you can pull in your supply chain to really help marry the digital supply chain and the physical supply chain. Things that you should be thinking about each and every day and looking for opportunities to improve, streamline, and innovate your businesses.

So, Craig, thank you so much for joining us today. Let me tell you little bit about Craig. He has a track record of over 25 years in supply chain, plant operations and commercial operations. Craig has led teams around the adoption of technology to drive better decision making each and every day. Some of that experience has been with Procter and Gamble (P&G) and Lassonde Pappas, a leader in beverage manufacturing. Craig, tell us a little bit about the areas of those businesses that you worked with.

Craig Ablin ([02:44](#)):

Thanks for having me on TEK TOK Karin! I've worked up and down the supply chain in my career. I actually ran a raw material supply support system for Procter and Gamble all the way to working directly with customers and really everything in between. So, I've worked in manufacturing, distribution, demand planning, production planning, purchasing, commercialization, and new products-- basically soup to nuts supply chain. Procter & Gamble was a really nice way to grow my supply chain knowledge. And then I got to really apply a lot of it once I got to Lassonde Pappas.

Karin Bursa ([03:15](#)):

Craig you've also spent time in the sales function. Right? If I recall correctly, you grew revenues by 42% in an industry that was under recession at the time. Tell us a little bit about that because sales/account management you become the recipient of keeping the customer happy.

Craig Ablin ([03:34](#)):

Yeah, I did. That was a lot of fun. Actually the CEO called me to his office one day and said, "I have a new career plan for you." And I said, what is that? At that time, I was the vice president supply chain. He said, "I'd like you to go into sales and run part of our sales organization." And you know, I said, "YES." I think understanding the company's supply chain really made me a much better leader inside the sales

organization. And, after success in the sales organization, I went back to supply chain. And the experience made me an even better supply chain leader. I think understanding holistically where the data's coming from, how it integrates, how it works within the planning system, how you can actually communicate customer needs in a way that the operational team can understand and act on is invaluable. I'm so happy I did it!

Craig Ablin ([04:12](#)):

And it was pretty successful. We had some, some really great growth with some customers that we were underdeveloped and it's funny. Those customers actually took me more seriously having the supply chain background and not just thinking I was a salesperson, no offense to any salespeople watching this. It's always tough with customers having credibility when they see sales behind your name. And so, I helped them find solutions and grow their business. It was really a fun time.

Karin Bursa ([04:42](#)):

Absolutely! And I can see how it would make you better in both roles, right? Understanding some of the levers that you can pull with your team from a supply chain perspective to boost that service level or to offer some additional capabilities to an important customer or a customer who's growing. Craig, 42% growth is impressive in any kind of market, much less in a market that's being impacted by recession.

Craig Ablin ([05:06](#)):

Yeah, it was great. They didn't like me so much sometimes because I actually knew the right questions to ask them. And, they would say sometimes, "you know too much." But it was great because we could actually partner together and solve the problems. And I knew not to push them in areas in which they couldn't make a difference. We grew those customers together between my sales organization and the supply chain, in a way in which we not only grew our business, but serviced those customers really well. It was just a great experience.

Karin Bursa ([05:32](#)):

Excellent. I'm confident that's going to come through in our discussion today. You can see why Craig brings so much to the table being engaged in each area of the supply chain. And also having the comprehensive understanding that the supply chain executive, the vice president of supply chain is going to have across the business, but also from a sales and customer service perspective.

Craig, let's talk about the Six Levers that, that supply team leaders should understand and look to bring together in both the physical and the digital supply chain realms. So, how do I get a better plan or with the ability to evaluate multiple scenarios for the business? Let's start with lever **#1 Demand Management**. I know our listeners have an appreciation for the fact that they need a forecast. They need to pull that information together, but they all realize that a forecast is never going to be one hundred percent accurate. If it were, it would be an order, right?

It wouldn't be a forecast, but help us understand, you know, in your experience in looking at demand management or better managing demand might be a better way of looking at it. How have you benefited and brought to the table, maybe some better demand signals or a more comprehensive plan for the business?

Craig Ablin ([07:00](#)):

You know, I think the demand plan is the heartbeat of the supply chain. It's the heartbeat of the organization because it's used for not just the supply chain for materials, planning and finished product planning. It's also used for financial planning and to enable other things in the business. It is a place that if your demand plan is wrong, very wrong, the rest of your downstream systems don't really matter too much, because you're just going to be dealing with error all the time. I think it's really important to start with a statistical forecast. If you're still forecasting in Excel, I would highly recommend you find a way to get out of Excel and get onto a technology platform because you need the system to figure out a statistical forecast.

Craig Ablin ([07:38](#)):

And there's lots of levers within that statistical forecast, but getting somebody who understands it, who can own it and really drive it is important. The statistical forecast only gets you so far. It's only predicting that the future is going to be like the past and we all know it's not going to be exactly like the past. So, adding all sorts of demand streams is extremely important to add onto (enhance) that statistical forecast.

I'll give you a great example, the plans for promotion and understanding promotional plans. They're not going to happen the same way they did the previous year. You may "place hold" them that way for financial forecasting, but it's extremely important to connect to customers to understand what their specific promotional plans are, especially if you're in private label. Or, connect with your marketing organization, if you're a nationally branded product and find a way to statistically understand if the information you're getting even makes sense.

Craig Ablin ([08:26](#)):

So I'll give you an example. We had a customer in the mass (retail) segment who we had terrible forecast error. Our forecast error was awful. It was only about 23% forecast accuracy. The error was really high and we actually reached out to the customer. We started working directly with their buying organization, connecting our demand signals and understanding what they were going to do. And we actually improved them 70% forecast accuracy. The really cool thing was, we started getting promotions from them in which we would look at our statistical history and say, "what are you doing differently?" We could tell them, "that promotion doesn't make any sense at all. It's double what you normally would have done." And actually we won, the most flawless execution supplier from them of the year and not just private label at the time, but of the year, because they were so appreciative. Their errors (caught by our team) would have doubled up their inventory. If we hadn't been using our data to connect back to them, you know, we actually improved our entire, uh, demand, uh, air by 30%. We went from a really bad (high) error rate to a reliable plan. And that's why you hear me say the word error and not forecast accuracy. You want to minimize the error rate and realize there will always be some error.

Karin Bursa ([09:39](#)):

And I agree with you. When it comes to your demand plan or your forecast for the business, there will always be an error rate associated with it. But the goal here is to boost the accuracy and to use that as an indicator to synchronize the rest of your supply chain operations.

So let's go from there, Craig, and talk about **Lever #2 Inventory Planning**. Because inventory becomes our leverage point. We're making an investment in inventory. Many companies are managing safety stock policies in their businesses. And you know, unfortunately some just apply a safety stock policy like peanut butter, right? The same policy, regardless of the type of inventory, fast-mover or slow-mover

seasonal or non-seasonal. There are a lot of variables that can come into play to offer greater precision around inventory. But what recommendations would you have that really illustrate how the value of better digital supply chain practices and how that results in a better physical supply chain for the business?

Craig Ablin ([10:51](#)):

Yeah, absolutely. You hit the nail on the head with peanut butter spreading comment about inventory parameters. Most companies have two types of parameters, the one(s) in your ERP system that you're going to use for material ordering mostly, sometimes for finished product planning. And then if you have a supply chain system which will have other parameters to better manage your inventory.

So let me start with the ERP system. I think it's critically important to understand what all of those parameters do. I'll give you a great example because supply chain, sometimes it's just about being simple and the problems that seem great are actually one parameter. And if you change it, you can solve multiple problems. We were having issues with not having materials on time or the in the right amounts (quantities).

Craig Ablin ([11:34](#)):

The material planning folks were working like crazy, but they weren't working smart with the parameters. There's a parameter called order period. In a lot of ERP systems, order period is when I order, how much am I ordering? So if it's one you're ordering a day's worth, we found out the issue was they had a quantity of one in the order parameter and should have had a quantity of 30, because at the time we were buying 30 days worth of materials. And so they were manually trying to figure out the one to 30 and they're doing all this work and they just weren't ordering the right amount because, and they were blaming suppliers and all sorts of things. We changed it to 30. And actually our schedule adherence went up by 15%. Meaning the plant improved meeting its schedule by 15% just by changing one parameter in the ERP system and working smarter, not harder.

Craig Ablin ([12:21](#)):

Then there's also the inventory parameters in the supply chain and logistics systems. What's really important is grouping them in the way in which they act similarly, whether it's a similar seasonality, it's a similar take rate, whatever it is. And then finding the right parameter use. I like using demand variability. Inventory should help you get to (buffer or a fill orders until) your next production cycle. So you don't have to break in and cause efficiency issues on the production line. If you can have the right understanding of your demand variability, you can build enough inventory to cover an average peak of that demand variability and be able to get your next production cycle most times.

Karin Bursa ([13:04](#)):

Looking at the inventory policies that are being set, looking at seasonality, looking at promotional demand. You shared just a minute ago when we were talking about demand management, the impact of promotional demand. When you're in grocery and you're talking promotional demand, you can see huge increases in demand. For some companies, promotions can increase demand by as much as 300%, the volume changes during those promotional periods and that can be with one retail partner versus another retail partner.

So as you look at that, it really transitions what's produced, or what's labeled, you mentioned private

label that just increases the complexity here as well. I think as a part of the mix, because that private label inventory is dedicated to one customer, right?

Craig Ablin ([14:03](#)):

Absolutely. What's really important Karin is that you can't set your parameters and walk away and think three years from now, there'll be the same. You need to be reviewing them at least once a quarter in order to understand that they still make sense. And, you mentioned promotions. It's really important with promotional demand to look at your stocking policies associated with your promotional plan. Because one of the mistakes a lot of people make is they have a safety stock plan. They have this spike in demand and there's their parameters. They don't adjust to the spike in demand. So you come out of the promotion with a ton of inventory you don't want.

Karin Bursa ([14:53](#)):

So we've talked a little bit about demand, right? Those demand signals, you've just mentioned inventory policies and looking at demand variability as a, as a part of setting some of your inventory policies and actively managing, or make sure that your systems, your digital supply chain is able to help you with that in the mix. Let's talk a little bit about **Lever #3 Production**. Manufacturing is an area where we sometimes see a disconnect from those digital plans of what "should" get produced and what actually gets produced in specific time horizons. Craig, how have you brought digital and physical supply chain capabilities together here to really expand capacity or focus capacity on actual demand?

Craig Ablin ([15:38](#)):

Production planning is where the money is. Early in my career, I asked a guy I respected at Procter and Gamble, "what's one thing I should do (that most people don't actually spend their time doing) which will help me be a supply chain leader?" And he said, "go into production planning when you're early in your career." And I did. I went to manufacturing and did some production planning.

First of all, I'm a, I'm a huge fan of centralized planning. It doesn't mean you can't do it with decentralized planning. I think centralized planning makes more sense if you're going to centralize your planning, it's really important to have the voice of the plant represented inside your systems. So, I'm a huge believer that run order makes a massive difference in your production planning.

Craig Ablin ([16:20](#)):

And what I mean by that is you really figure out the most efficient way to run in the plant. You work with the plant on their changeovers, from kosher to non-kosher, to whatever affects your business, organic, all those types of things and figure out the most efficient way you could possibly run in the plant.

Now, obviously you're gonna have to marry that with service and inventory policies across the supply chain from a planning perspective. But if you can go figure that out, it makes a huge difference in the system auto generating the most efficient plan first, and then you can adjust it for service and inventory as you need to. And, you're going to hear me say throughout this, you have to optimize those three together.

Craig Ablin ([17:05](#)):

I'll give you a great example. We had a manufacturing plant that was running seven days a week, 24 hours a day. They were getting help from another plant, almost a full day's worth of production capacity. So they were really eight days a week. We went in and really took a hard look at their

production schedule. We had an item that was running every day and used technology to find a way to run it only on Mondays for 30 hours instead. There's all sorts of side impacts. You never have material problems anymore because they know they're going to have at least a 20 to 30 hour run of that item every Monday, every week. And so they're getting things out of freezers. They're making sure things are delivered. As simple as that sounds. It was complicated, but in the end we gained capacity.

We did it on every plant and every line. And without any capital investment, we gained between 14 and 40% capacity on every production line in the system.

Karin Bursa ([17:53](#)):

Wait a minute, you gained 14% to 40% capacity without a capital investment? Four-zero (40%)?

Craig Ablin ([17:56](#)):

That plant actually gained 40% capacity. And, that plant went from running eight days a week to running six days a week. We utilize some of that capacity in other ways for service and inventory. And, you know, not only did people not have to work on Sundays anymore, which that culture part we don't talk about much is really important. If you're going to centralize planning, the plant has to understand you're on their side because you are on their side, but they actually have to perceive it and see it and believe it. And as people started getting days off and as the other plant that was helping them started getting days off, we saved a million dollars in product transfers on an annualized basis. And so that was great also.

Karin Bursa ([18:36](#)):

That's tangible! I bet morale went up when they got a little time off and ability to spend with their families.

Craig Ablin ([18:45](#)):

It did. And so just looking at the run order, understanding what it should be working with the plants, trying to stick to it, making some changes for inventory or service, having the system generate it on a regular basis. A lot of folks are (still) creating their own production plans. They spend a ton of time creating it manually. It's so important to have a system that generates it based on the parameters you're putting in like the run order so that your production planner can spend their time editing for service and inventory. They don't spend their time creating a production plan and never really looking at it to understand if it's any good. Your business will be so much more responsive.

Karin Bursa ([19:16](#)):

Craig, great insights from so many different perspectives comes into play here. So you mentioned a couple of things in your discussion on production planning. You were talking a lot about service levels. So clearly considering service level is critical. That's one of the measures that the customer is going to see and feel right? What is their on-time, in full (OTIF) and is it the quality that they expected? But I think that that also plays into how you balance or the levers you pull around your inventory policies, right?

If you've got certain customers that demand a higher service level, you need to be able to bring that requirement into your digital supply chain plan so that it's applied to the right part of your product portfolio and that's flowing through all the way from demand to inventory policies, right into looking at line level loading and efficiently placing that demand for production at various facilities. Fair enough?

Craig Ablin ([20:22](#)):

Absolutely. And you know, Karin with all this work, bringing the demand, inventory and production plans altogether, we actually increased our service levels from a 95.2% fill rate to 99.7% fill rate. And, we actually demonstrated that 99.7 every month for years. I do believe that you do have to make choices from a customer standpoint, especially if you're maxed out in capacity, but I'd prefer to service them all. That's part of the reputation I personally gained with customers is bringing them great service. And at the same time, we're going to need to understand what you need and how you need it and what your (the customer's) demand looks like. And if you can help us do that, then we're going to give you service.

Karin Bursa ([21:04](#)):

Yeah, absolutely. And you've already given us an example of where one plant was maxed out at eight days a week. Right? So the first question is how the heck do you run eight days a week? Tell us Craig, do you have experience in working with **Lever #4 Co-manufacturers** or co-packers? Our audience may not be familiar with the terms co-packer and co-manufacturer. They may not be prevalent in their line of business, but this is the ability to tap into extra capacity. How do you manage through a partner network like that in bringing again together your digital plan with the actual make, move, deliver aspects of supply chain?

Craig Ablin ([21:43](#)):

I co-packed for folks as well as I've had folks co-pack for me. I would call it the most difficult of all areas from a digital supply chain standpoint. It is the most difficult of all of it because the rest of it, at least you're all working for the same company. You can rally the plant around, giving it a try. And then when they see the results, they're believers. But when you're working with a completely different company (a manufacturing partner), it's a lot more difficult. What's really critical is trying to link through a portal (digital supply chain) is trying to have real-time connectivity to many partners but many are not working with real-time connectivity. Some operate off reports received in the morning, or every other morning and then they have to key them in, or they bring in the data in a flat file and pushes them into your systems.

Craig Ablin ([22:31](#)):

But what I found is if you have those types of (disconnected) systems, you don't really know if your loads shipped. You don't know what they've produced. You don't know how they've made it. You don't know if you're going to have service issues because your systems are behind. So, I think it's really critical to somehow connect with them from a real time standpoint. There's some type of portal or some type of data exchange (think digital supply chain).

I'll give you an example. We had somebody making (producing) for us who everybody hated. They hated them because they never delivered. It was a really important part of the business. Service was terrible. The organization had gotten really used to just blaming them (the co-manufacturing partner) and moving on instead of trying to solve the problem. I met with the com-manufacturing partner with some of my team and we really connected.

Craig Ablin ([23:17](#)):

Some of this is digital, but some of this is about people and relationships and collaboration. And if you work with a co-packer in true a partnership, not a co-packer relationship or co manufacturing relationship, you can do some things for them and they can do some things for you and then you can connect your data and their data in near real time, then the relationship gets a lot better. Before workin

on the relationship and connecting the (digital supply chain) data, they were producing products that weren't what we asked for and making amounts more or less than what we needed. It was bad. We were (only) at 16% schedule adherence.

Karin Bursa ([23:55](#)):

Wow, wait, wait, wait. I want to make sure our audience hears that 15% schedule adherence? That is disappointing.

Craig Ablin ([24:03](#)):

And, the customer sees our service as “terrible” because of that. Our planners were annoyed and frustrated. We did a ton of work with the co-manufacturing partner from a digital supply chain data standpoint. But a lot of the improvements came from building the relationship, looking at their production line, and having conversations. We actually got them all the way up to 85% schedule adherence, which is really pretty good in a co-pack relationship. It can be better than that, but we went from just 15% all the way to 85% schedule adherence. We were really proud of that. And you know, the (customer) service obviously went up significantly associated with that also, and our inventory costs came down.

Karin Bursa ([24:36](#)):

Right? Cause the velocity was moving and you didn't have to buffer against their poor performance?

Craig Ablin ([24:42](#)):

And, you have the right things on the floor. When you have the wrong things on the floor, your inventory is going to blow up.

Karin Bursa ([24:46](#)):

Absolutely, absolutely too much of the wrong stuff, not enough of the right stuff, I'm over simplifying. But a lot of times it comes down to that.

So again, Craig, we hit on several topics here that you just interweave so well. I want to step back and highlight just a couple of those digital & physical supply chain examples.

One was data and communications frequency, right? How regularly did that happen? Once a day is not enough in the mix, and learning to trust the data that's being shared comes into play as well – right?

And I think more and more as we continue to progress in the areas of digital supply chain and the application of machine learning and artificial intelligence data becomes even more important. Because these technology engines are hungry and they want data. They want a lot of data and are able to sift through large data sets very quickly to find the signal and ignore the noise.

Karin Bursa ([25:46](#)):

But I do think when you're working with a collaborative partner, like a co-manufacturer or a co-packer, and those terms are very commonly used in consumer products, consumer goods, food and beverage. You will also hear those terms frequently in pharmaceutical as well. And so any of our listeners who happen to be in those industries should tune into that and understand that you can plan your production schedules. You can use your digital technology to plan those schedules, but that execution element becomes critical to overall success. You've got to build that relationship and trust. And Craig, like you said, get out there and get some eyes on the scene and understand what the co-manufacturer



process is and how they execute a plan that you give them. Such a great example of combining digital and physical supply chain success. You went from 15% schedule adherence to 85% schedule adherence. Tell our audience again what schedule adherence means and why is that important.

Craig Ablin ([26:44](#)):

Schedule adherence means they're making the amount (quantity) requested for the item I asked for in the timing I asked for. And so if they're not making what you want, when you want, when you need it, then you're going to have service issues and end up with either too much or too little inventory. It's a great way to measure if a co-packer is meeting your needs.

Karin Bursa ([27:03](#)):

Absolutely. And I recommend that you look at schedule adherence inside your own manufacturing network as well.

Karin Bursa ([27:11](#)):

A metric that is followed frequently as well. It'll help to get your production team members on board with the plan that's presented to them. Um, and, and they can start understanding, you know, that the days that things are manufactured or the sequence in which that is done is, is offered up to them for a reason.

Craig Ablin ([27:30](#)):

When internal manufacturing plants don't have scheduled adherence, there's a reason like a material supply problem. There's almost always a reason. And actually schedule adherence is a great way to measure your production plan and having somebody manage those exceptions and understand them and then go solve the root causes. Solving those problems is like gold in the system.

Karin Bursa ([27:56](#)):

Excellent, excellent example. We have covered 5 Levers so far:

**Lever #1 Demand Management**, we have created a forecast

**Lever #2 Inventory Policies** and bringing together some of those digital elements around service, around investment, around location and safety stocks.

**Lever #3 Production** capabilities and supply side constraints.

**Lever #4 Co-Manufacturing** and collaborating with production partners.

**Lever #5 Transportation** - Let's talk about actually moving those products. Give us an example of bringing together the digital supply chain and the physical supply chain. And before you do that, I want to reinforce that for our listeners, transportation is critically important because this is the delivery of goods to your customer. It's also critically important to deliver in an efficient and effective manner because that's pure cost. The product is manufactured at that point in time. So every dime you save, every dollar you save in the area of providing great service and delivery, goes straight to your bottom line, straight to the overall profitability for the business.

So Craig, give us an example in the area of transportation, where you've brought digital and physical supply chain together to better serve customers and to look at costs and service as well.

Craig Ablin ([29:14](#)):

Yeah, I think it's really important in transportation to make a decision whether or not it's a core competency of your organization. If you own trucks and that's what you do, obviously you're going to manage transportation and you're going to have your own digital systems and you're going to be doing research and development in those systems and finding ways to continue to improve them.

You know, at the organization I last worked for transportation was not a core competency. So, we made a smart decision to go to a third party. Unless transportation is a huge core competency of your organization, I would recommend working with a partner because that's what they do for a living. And the third party transportation companies are investing in technology. Their digital planning systems and transportation data are significantly better. Their leverage with carriers is greater than what you're going to have in most organizations.

Craig Ablin ([30:00](#)):

What I've found is by leveraging a third party, by managing them, by partnering with them, by looking at the exceptions, to the data with them, that you can really drive significant dollars out of the organization. So, in time of doing that, when we first switched to a third party (transportation provider), we saved \$650,000 in SG&A. We had people that weren't managing it (in house) anymore. We also saved \$6 million over the years, even as transportation costs were going up, we saved \$6 million over the years as we continued to lower it and provide reliable service. To the organization, \$6 million was a huge savings. That money got reinvested in lots of other things, you know, as commodities went up, we didn't take price increases to customers and all those kinds of important business considerations.

Craig Ablin ([30:47](#)):

I've also found a transportation partner can significantly help you with service because they're spending money on Artificial Intelligence (AI) in order to predict service problems and start to see that something's going to happen. They're seeing there's an accident or a concert letting out, they're seeing that all sorts of things are happening and they're building a plan around them. AI-driven information systems are getting smarter. And as a manufacturer, that's just not where you need to spend your money. Focus your investments on buying more equipment rather than trying to focus on maintaining a transportation system. The company I worked for significantly increased our not only our leverage with carriers, but our bottom line by, by utilizing a transportation partner and technology rather than trying to do it ourselves.

Karin Bursa ([31:32](#)):

Right. So again, you said several important things there, Craig. The first is an optimized plan for transportation. And the second is to make sure that plan is coordinated or synchronized with your actual carriers, those that are doing the physical movement of goods.

I don't want to buzz by the fact that you mentioned artificial intelligence in this area of transportation. This is a great practical example of applying artificial intelligence (AI) to help predict when orders are going to be late or when there maybe a particular problem or challenge in a lane that is normally used. Giving you the opportunity to be proactive about calling the customer and letting them know what's going on, why a shipment might be late or what the disruption is. It's a completely different relationship when you're able to make that phone call proactively than when you get the phone call inbound from your customer and they are upset in the mix – wondering, “Where are my products?”

Craig Ablin ([32:38](#)):

Absolutely. Let me give you a micro example that goes across all this. We had a customer that our cost is high in our manufacturing lanes, our inventory was high, our service was fine and our production was kind of ok, right? We were making, but we just had too much inventory. And our transportation costs were really high. We figured out with our partner that the ordering flow from that customer was really jagged. They would order 15 trucks in a day and then they wouldn't order for two weeks and then they'd want 15 trucks again. You might get busy and you don't think to look for those things. Well, our transportation partner spoke up and said, "look the hardest part is we're trying to get 15 trucks on one day and there's no spread of this demand at all."

Craig Ablin ([33:24](#)):

We worked with that customer to spread out the demand. We realized they were on a manual ordering system. And once every two weeks, they put in all their orders and they moved along, right. Because they didn't realize the effect they were having on the whole system, including some service problems. It created service problems for them as well. They had skin in the game in solving the problem. We couldn't do all 15 trucks in a day. We worked with them to actually spread the orders out across three or four or five days to maybe eight in one week in seven in the next week. Our service went up significantly for them. Our cost went down because now we can spread it out and we could work with all the carriers on spreading it out. So the carriers gave us better rates and our inventory went down because our inventory was consistently being taken versus not taken for ages instead of a big chunk and then not taking phrases and a big chunk. Everybody really won in that situation. But we identified it because the transportation partner understood the data and looked at it from a problem-solving standpoint.

Karin Bursa ([34:26](#)):

That's a great example. Um, it brings to mind, a consumer goods customer that I worked with for a number of years when they stepped back and looked at transportation, they were actually shipping three times a week to one of their largest big box retailers. In that mix of shipments, one was their normal replenishment delivery, then on Wednesdays, they would ship their promotional demand, right? The shipments were just two days apart and it was creating congestion. And, you know, the outcome was looking at the business relationship, collaborating and saying, "can we bring these two shipments together?" And can we get you your replenishment order and promotional products on the same day and in one set of shipments out to your various distribution centers?" It was a no brainer. It saved them money. It freed up the retailer's docs for other goods to come in and it really streamlined the relationship. It was a win-win there were commercial, financial wins for both trading partners as a result of using digital supply chain planning in the area of transportation to really optimize when, how much and where those shipments should be delivered.

Craig Ablin ([35:45](#)):

Yeah. I think I know who that retail customer is because we did the same work. The promotions always came in on a Wednesday and the other orders came in Monday or Tuesday to ship Monday or Tuesday or Wednesday, and we got them to combine them also. So it's kind of funny that you mentioned that example.

Karin Bursa ([36:01](#)):

It obviously impacted their relationships with a lot of different suppliers once they became aware of it and the opportunity to work their distribution centers and their docs a lot more efficiently as well.

Since we're talking about that, Craig, I want to step back if you will, to more of an executive process and talk about **Lever #6 Sales and Operations Planning**. If you're interested in another episode of TEK TOK, that focuses on S&OP, look at TEK TOK episode number four. It covers three things C-level executives need to know about sales and operations planning. Looking at sales, the demand signals the commitments for a customer along with your operational capabilities, and how you're producing, storing, and moving those goods to market.

Karin Bursa ([36:59](#)):

S&OP isn't intended to be a tactical process. It is intended to be more operational and strategic in nature. And for most businesses, when they're in the early stages of sales and operations planning, it is all about firefighting. But the goal is to get out of the firefighting just as quickly as you can and start getting more proactive.

You can look at some of the examples that Craig has shared with us today to look at actually making changes or addressing core issues instead of simply battling the outcomes that are coming from bad behaviors or limited visibility or reliability in the business.

So the other thing I would say, Craig, before I get your perspective on this is as you mature in your sales and operations planning process, I want you to be sure to think about both the volumetric numbers - how much what's that quantity in cases or pounds or, or tonnage that you're moving through your supply chain - but also think in terms of financial measures. This is critically important for your executive team because the higher you are in an organization, you'll think in terms of revenue, costs and profitability. Of course key products and customers are important and get discussed, but ...

Karin Bursa ([38:11](#)):

Senior management is also looking at the guidance for the business and that top line growth and the bottom-line profitability. So think about your financial measures as well as those volume metric measures. Craig, talk to us a little bit about again, marrying the digital supply chain capabilities with the actual physical supply chain in responding and leveraging a sales and operations planning process.

Craig Ablin ([38:42](#)):

S&OP is where it all comes together. If you don't do it in supply chain, you'll be getting direction from usually three different leaders in the organization. You have the Chief Customer Officer, you have the Chief Operating Officer and the Chief Financial Officer. And although they all want the something for the business, what they're measured by and what they're driving is different.

The Chief Financial Officer wants the forecast to be accurate because that's what they're using, hopefully for the financial forecast, but they also want working capital insights?

The Chief Customer Officer wants service for the customers.

And, the Chief Operating Officer wants efficiency in the manufacturing facilities, typically depending on what, how much they own. S&OP is where all the things that we've talked about today, all come together in which you're optimizing your inventory, your service and your production throughput altogether, as well as your transportation and even the morale piece, because that's the HR manager is not always part of S&OP. They usually report to somebody in S&OP who wants to understand the effect it's having on morale.

Craig Ablin ([39:41](#)):

And so, you know, Karin, it's critically important because it makes all three of those folks that I mentioned, including the CEO, get on the same page because you cannot, you can manage two of those things, optimally, but not the third, always unless you're, and you can somewhat optimally manage all three together and there need to be tradeoffs, right? And you can have inventory and service, but you may have bad production capabilities, right. Or you can have a really long runs and great service, but your inventory is bloated, right? And it's managing all three of those together and S&OP is where it happens. And I agree with the financial part of it, you really need to show the financial effect that S&OP is having the transportation dollars, the inventory dollars, the accuracy of the financial forecast based on the demand plan.

Craig Ablin ([40:32](#)):

Those things are sometimes not in there if you're too operational, but you also have to make sure that you are matching supply and demand together and then making critical choices. And one of the biggest pieces of advice I would give somebody who's struggling with their S&OP process is by the time you get to the executive level, it should be some information to make sure they understand the picture and one or two things they have to make a decision on. And they should be pre-warned about the decision they have to make. It shouldn't be 30 things you're asking for them to make, because as a VP or a director, that's your job, you know, as a group of people to get together and make those decisions. And you may inform them of some of those decisions, if they need to know, but it's look, we can't agree on these two things. And we need your perspective from a business standpoint to help make a decision on these two items. And I think that's what they ask. S&OP really can drive.

Karin Bursa ([41:22](#)):

Yeah. Hey, that is great insight. And I think that's a very effective way to use the executive review of the sales and operations planning process. And it's a great example of how both the digital planning capabilities and the physical supply chain capabilities of the business come together. It's vitally important as you think of onboarding new customers, or you look at new product introductions or optimizing inventory across your network as well. You want to understand what those changes are going to be and how you can respond and take advantage of market conditions to either increase or to excuse me, increase revenue or perhaps mitigate risk associated with execution in a specific time horizon.

Karin Bursa ([42:18](#)):

So, Craig you've taken us through **6 Levers of Digital & Physical Supply Chain**. Let's review those one more time.

**Lever #1 Demand Management**

**Lever #2 Inventory Policies**

**Lever #3 Production Planning**

**Lever #4 Co-Manufacturing**

**Lever #5 Transportation**

**Lever #6 Sales & Operations Planning (S&OP)**

Now, Craig, you've got more than 25 years of experience in supply chain, right? And you've worked in several of these areas or managed the initiatives over these areas, for a number of years. Which one is the hardest? Which area is the hardest to bring about change?

Craig Ablin ([43:19](#)):

Originally, I said co manufacturing, right. But, but I'll back off that one for the moment, because not everybody's doing that. Only some people are doing it. So if you're doing co-manufacturing, I think that can be the hardest part because the connection of data systems is just really complicated. But if I back off that, I think it's getting a great production plan. I it's really understanding how plants need to run. What the variation of demand is and understanding what your inventory policies need to be, because they all come into your production plan. It relies on all the other pieces. And so that makes it the most difficult because if you have a bad inventory plan, your production plan is a problem. Do you have a bad demand plan? Your production plan is a problem.

Craig Ablin ([44:00](#)):

It's where all of the digital and physical come together and you have another entity called your manufacturing facility, which may be used to doing what they want and convincing plant managers and plant leaders and line leaders that you're their partner. And you're willing to do things to help them to drive their needs and their culture and their throughput. You know, there's a lot of connectivity work that has to be done there also because typically manufacturing plants don't tend to trust corporate offices entirely. They kind of build their own areas and trust each other. So, I would say production planning is the most challenging.

Karin Bursa ([44:33](#)):

All right. Great point. Even when you think of digital supply chain capabilities, production planning is challenging because the set of parameters and constraints may be different on each and every line or within each and every facility, depending upon when those lines were put into service or the equipment was installed. And, maintenance schedules that need to be managed as well. So production planning is an area that's got a lot of constraints in it, and a lot of specialization from one location to another location or one line to another line, even within the same facility.

Craig Ablin ([45:09](#)):

Yeah. Think about it. Thinking about it Karin, in order to figure out a good downtime or change over matrix, you have to figure out all your items connected to each item, every single one of them and what that changeover would be to find out what the ideal run rate is going to be in. So you're, you have to work through stuff that doesn't normally run next to each other and figure out what that changeover would be. And that's just the beginning of figuring out a good run order.

Karin Bursa ([45:32](#)):

Absolutely. So, Craig Ablin, this has been so much fun for me. I want to thank you for joining us here today on TEKOK. It's a great opportunity for me to bring somebody I really admire and have worked with over the years and just share some key insights with our audience about bringing together both the digital supply chain and the physical supply chain to improve service, reduce costs, and get things operating to allow your business to work more efficiently and more effectively as you strive to grow revenue and expand profitability. So thanks so much for being with us today, Craig!

Craig Ablin ([46:10](#)):

Thanks, Craig. It's been a ton of fun!

Karin Bursa ([46:12](#)):

I hope that this has helped you raise your supply chain IQ today.

On the note of raising your supply chain IQ, I want to remind you to go to [www.supplychainnow.com](http://www.supplychainnow.com) and tap into many of the great resources and programs that are available for you there.

And, while you're there, please find TEK TOK that's T E K T O K, and subscribe. You don't want to miss a single episode. Thanks again. This is Karin Bursa, your host for TEK TOK powered by Supply Chain Now, the Voice of Supply Chain.