Business901

Podcast Transcription

Implementing Lean Marketing Systems

Bringing New Thoughts to the Supply Chain thru MRP

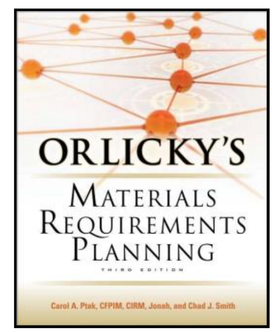
Guest was Chad Smith
of the Constraints Management Group

Related Podcast:

[Bringing New Thoughts to the Supply Chain thru MRP]

Chad Smith is the co-founder and Managing Partner of [Constraints Management Group] (CMG), a services and technology company specializing in pull-based manufacturing, materials and project management systems for mid-range and large manufacturers. Chad has a wide range of experience in successfully applying pull-based systems within a diverse scope of organizations and industries. Clients, past and present, include LeTourneau Technologies, Unilever, Boeing, Intel, Erickson Air-Crane, Siemens, IBM, The Charles Machine Works (Ditch Witch) and Oregon Freeze Dry.

Since the late 1990's Chad and his partners at CMG have been at the forefront of developing and articulating the concepts behind Actively Synchronized Replenishment as well as building ASR compliant technology (Replenishment+®). Additionally, Chad is an internationally recognized expert in the application and development of the Theory of Constraints (TOC), getting his formal training at the Avraham Y. Goldratt Institute Academy and working under the tutelage of Dr. Eli Goldratt, author of *The Goal*, for several years.



Chad is currently writing the third revised edition of *Orlicky's Material Requirements Planning* with Carol Ptak. It is the first of a three book deal with McGraw-Hill.

Joe Dager: Welcome everyone; this is Joe Dager, the host of the Business 901 podcast. With me today is Chad Smith. Chad is the co-founder and managing partner of Constraints Management Group. A services and technology company specializing in pull-based manufacturing and project management systems for mid-range and large manufacturers.

Chad is in the process of rewriting Orlicky's "Material Requirements Planning" and is hidden away in a cabin somewhere today. I'd like to welcome you Chad and first tell me a little bit of where you're hiding, because that sounds kind of exciting.

Chad Smith: Thanks Joe. I'm actually in a small fishing cabin on Whidbey Island in the Puget Sound. Just trying to get this book wrapped up. We're very close. Both Carol and I are very close to getting this thing done, in the can, and through the first round of edits.

We're very excited. In fact, I just learned yesterday that Amazon has actually posted the pre-order for the book. There's a link out there if you search on Orlicky's MRP you can see actually the new cover of the book and you can go pre-order a copy.

Joe: Why did McGraw-Hill come to Carol and you to write it?

Chad: It's a pretty good question. It's actually a very interesting journey that happened. The story goes back two, two and a half years ago. Carol and I have known each other, first of all, for years. Probably since the late 90's when she was the CEO of the APICS organization.

My company was a little bit involved in APICS there. We were doing some workshops with APICS and I got to know Carol very well. It turns out that Carol's from the same area of the country that I am. I kind of had a light bulb go off in my head and I said I need to share with Carol some of the ideas that I have here and some of the stuff we've done.

I called her up and she happened to be teaching at Pacific Lutheran University which is about 15 minutes from my home. I drove down had about two, three-hour discussion with her. Showed her some things that we developed, some tools we'd developed and some conceptual slides and a story about what we'd been working on.

She got very excited because it turns out that she was working on some of the same stuff. I was just approaching it from a little bit different direction. What we did is we said; "Hey, the problem here is we've got all these great ideas. We've got solutions that are actually in play in the industry right now that are working and getting great results."

The problem is that the market really doesn't know how bad the problem is. They don't really understand why MRP is failing. What the real deficiencies are of MRP.

That led us to write a white paper. We wrote a white paper in spring of 2008. We submitted it just on a whim to the APICS organization saying, here's something that we've written. Are you interested?

We got an immediate response back from APICS saying can you condense this a little bit for our magazine? We said sure, we'll do that. We condensed it and little did we know that it turned out being the cover story for the July/August 2008 edition of the APICS Magazine.

That intrigued us. It told us, wait a minute, there's something people are resonating with what we're writing here. APICS sponsored a webinar a couple of weeks later on a topic and 250 companies signed-up.

Three weeks later Carol spoke at the APICS conference in Kansas City and there were 350 - 400 people in the room. There was standing room only.

We got pretty excited because what people told us was the reason why they got so interested in this was because of our depiction of the problem and the fact that the way we described the problem was exactly what they were experiencing. There just didn't seem to be a fix out there in the industry.

We spent the last couple of years articulating this. We were asked to write a chapter for another book that McGraw-Hill was publishing. Based upon the strength of that chapter, the editors of that book kicked it up to McGraw-Hill and said you really need to take a look at this. This deserves a whole book.

We went round and round with McGraw-Hill a little bit because McGraw-Hill was a little bit worried that people had never really heard of this concept, these new concepts. I agreed the book might not sell well because nobody's really heard of this new approach to MRP.

They came back and said; "We have this Orlicky book that needs to be updated. Would you like to do that?"

From Carol and my perspective, we were like, wow, yes, absolutely. That's a perfect scenario for us. It allows our message to get into the typical MRP user and even buyer of

software so that we can really demonstrate what the problem is and what the direction of the solution is. How we can augment or how we can amend the MRP and ERP for the new century.

That's a long-winded answer there Joe. But, that's the story behind it.

Joe: Chad, MRP's been around for 50 years. It had to be pretty relevant if people are still using it. Is it not?

Chad: First of all, the world is in love today with supply chain management without really understanding MRP's place in supply chain management. I also think that a lot of people assume that something that's 50 years old with all of the technology changes that have occurred, may not still be relevant.

The exact opposite is probably true. In this case, MRP is probably more relevant than it was when it was developed in the 50s, 60s, and 70s. The reason why is that the manufacturing and global supply chain landscape has changed dramatically over the last 20 years. It's a much more variable and volatile environment. The net effect is that we have more complex planning scenarios than we've ever had before. That's one of the driving factors behind the need for a tool like MRP that manages the dependencies involved in more complex scenarios.

Let's not forget that these extended global supply chains are essentially archipelagos of different MRP systems. Whether MRP should be relevant, it is relevant simply because it is still at the heart of every supply chain.

In fact, I saw a survey that came out I believe in 2008. It said that 79 percent of buyers of ERP systems also still buy and implement the MRP module associated with it.

It's not going away anytime soon nor should it. I think the important thing for people to understand is that when Carol and I are doing this writing on MRP it's not to bash MRP, it's to simply to say MRP needs to change and evolve because it plays an extremely important role in the productivity of any supply chain.

Joe: I think one of your areas of expertise is demand driven manufacturing and it is very interesting that you're such a proponent of MRP when looking from that viewpoint. Because I think that's some leading-edge thinking there that's still saying this stuff is good?

Chad: That's a great question, Joe. I think one of the reasons people make that assumption around MRP was that MRP was typically implemented with push-based tactics. This is the drive to a manufacturer's forecast. That was the way it was typically implemented. Unfortunately, it's the way it is still implemented and/or operated today in many cases. But it doesn't have to be implemented in that way. That's where people need to make the conceptual break and say, "MRP is not just a push-based tool. It can be a demand driven or pull-based tool as well."

The problem is, that in order to move from a push-based to pull-based mode of operation, whether it's planning, scheduling or execution, you are going to need some supplementary tools or functionalities in your MRP system that don't really exist very well today. Certainly they are not well understood. They are not in a lot of MRP products. But MRP can be a demand driven system. It just needs to change a little bit.

Joe: It can be compatible with the new wave of thinking, demand-driven, Lean, those types of philosophies and methodologies.

Chad: Absolutely. I think it's actually kind of comical, the conflict that has occurred between the MRP proponent and the Lean proponent. In many cases, you have Lean proponents even specking out the computer system or the MRP system in their "solution." And what's interesting to note is that in most manufacturing environments with any sort of shared resource sets across multiple lines of products that encounter any sort of variability, that's the exact opposite of what they should be doing.

You often get these two camps. One camp is preaching simplicity, simplicity, simplicity. That'd be Lean. The other camp is saying, "You know, I understand you guys want it simple. The problem is we don't live in a simple world and MRP allows us to better see some of the complexities." Now, MRP in and of itself has become overly complex beast so to speak. The Lean proponents kind of say, "well, you guys are dinosaurs wedded to obsolete technology and you're making it more complex." The rejoinder of the MRP crowd is saying, "Well, you guys are oversimplifying the issue." So you kind of have two ships passing in the night.

In fact, the punch line is that they're both right. MRP is too complex. It doesn't show you the visibility that you really need in the demand-driven world today. Nor is Lean the answer to everything in most manufacturing cases in this country where it is probably a gross oversimplification of what you need to do to plan materials and inventory effectively.

There is a solution to both sides, but it's going to require a change or an augmentation to the MRP logic to make it more demand driven friendly and much more visible and bring it to a level of simplicity where it is not oversimplification but it is an adequate level of visibility, simplicity, and elegance in order to maintain control in the environment.

Einstein had a great quote. He said that "any intelligent fool can make things bigger and more complex. It takes a touch of genius and a lot of courage to move in the opposite direction." But at the same time he also said, "Everything should be made as simple as possible and not simpler." What he's telling you is you will lose control in both cases if you make something overly complex or if you make something overly simple. To me, that describes in a nutshell the conflict between today's MRP proponent and today's Lean proponent. In both cases, they lose control because one has simply overcomplicated the issue and another has oversimplified it.

Joe: So you wrote a chapter on integrated supply chain in the Theory of Constraints Handbook. How does that coincide with the theory of constraints and the drum buffer rope type of philosophy? How does that coincide with MRP and where you are saying the ships are meeting each other? Where is TOC crossing the path with that?

Chad: That's a good question, Joe. I've spent a lot of time here, the last 15 years of my life, working predominantly in the Theory of Constraints realm. It's just in the last few years where I've pushed beyond Theory of Constraints. One of the reasons why the Theory of Constraints isn't the end-all, be-all philosophy, nor is Lean, there are aspects of all of these demand-driven types of techniques that need to be incorporated and blended for a complete solution.

One of the things that we consistently saw over and over again was when we went to put in a drum buffer rope scheduling system...and the same thing occurs in Lean when they go and they implement Lean manufacturing on the floor. Let's just call it pull-based scheduling. There could be a pace setter, a drum, or a constrained resource that they are scheduling around. Almost all the time, in any sort of environment with scale and complexity and a decently sized bill of material, the real obstacle to making those types of pull-based scheduling techniques work effectively and sustainable in the environment, is the MRP system being able to adequately support them.

Let's be honest here, you need two things to manufacture effectively. You've got to have the capacity available, and you've got to have the materials available. Unfortunately, a lot of times, both in TOC and Lean implementations, the focus is on how to schedule capacity. Often times they have tremendous success. Cycle times are dropped or lead times are dramatically reduced. But without the material system in line with being able to support that, what often happens is you still have chronic and frequent shortages. Even though you can make something faster, you can't make it if you don't have the materials.

We've actually seen this occur over and over again. When people implement Lean or TOC and they do get these lead time reductions, they are still hamstrung by the fact that they can't get the materials on time. And they don't shut the factory down. They don't send everybody home. What they end up doing, is they make the wrong stuff faster. That's completely the opposite of what we want to have happen.

So if you really want to get the investment out of your Lean manufacturing techniques or your drum buffer rope system, you have to have the MRP system with the ability to

support it effectively. Otherwise, you risk squandering all of the potential of that type of implementation and all the time, effort, and money that went into putting in place.

Joe: But is that just managing your buffer stock well?

Chad: Well, I think that's...

Joe: Is that an oversimplification of it?

Chad: Yeah. I think, Joe, you've just hit the oversimplification side of things. I mean the idea of saying, "let's just manage our buffer stock well," sure, that sounds great. The problem is, that if you have a bill of material, if you have hundreds of end items and thousands of child components, many of which are shared and you might have a lot of different sub-components and intermediate components, where do you buffer? Do you buffer everything? Well, in a lot of Lean and TOC environments they'd say "yeah, let's just have small buffers of everything everywhere."

In some environments, it's simply completely impractical from a cash perspective, a space perspective, and from a control perspective. Do you manage it with cards? I was actually in a factory four years ago in Portland, Oregon and they had over 7000 cards at play on the floor at any one time. They would lose 25 to 30 of those cards per day. In fact, after a few months they deemed it completely unmanageable and unworkable because in trying to get simple and visible, they made themselves a paper nightmare.

You look at a situation like that and you say, "Look, something has to change." You can't simplify it down to that level. You've got to be able to have some sort of automated system

that can keep track of these buffers and can tell you where you should and should not stock inventory. Stocking everywhere is a waste. Stocking nowhere is a waste. So somewhere in between you've got to have the right blend of where to put inventory.

In fact, this is a very, very big part of the book we're writing now. If you look at the way that most APICS education is formulated today or just the primary questions people are trying to answer around inventory, there are always two questions, how much and when. In fact, those questions are secondary questions.

The primary question about inventory should always be "where." Where should we place inventory to best protect ourselves, the market, and our suppliers against variability. Once you answer the where question, it's much easier to answer how much and when. And, by the way, the answer to the where question is not everywhere and it's not anywhere. It's somewhere in between. The more complex the environments are, the bigger the impact can be to find the right places.

Joe: Well, is that what you're calling the new normal then?

Chad: The new normal is actually characterized by the heightened variability and volatility of the global manufacturing and supply landscapes. I believe the people that coined the phrase "new normal" were from Cambashi which is a research firm. They've basically said this level of variability and volatility that we've seen, particularly through the recent global meltdown; don't expect it to change anytime soon. In fact, it's probably going to get acute. The customer tolerance times are dropping dramatically. People expect it faster than ever. At the same time, you see product structures that are much more complex and you see

supply chains that are much more extended or fragmented. All of that combines to the net effect of much, much more complex planning and supply scenarios. That translates to the new normal.

Joe: When I look at different books and different supply chain books, it's like in the first paragraph I read "we work from this control point that we bring inside to reduce variability." Well, if I have a control point inside my organization I can reduce variability. I'm that smart.

The problem is, is my customers are all looking for shortened cycles, but they're also looking for more customization. We need customization and shorter supply chain cycles or links. That, to me, is a reality today. Am I wrong?

Chad: No, you are exactly right. That, I guess, is why I caution people that are in the Lean community or in the TOC community to understand that the solution is not inward facing. It is outward facing. It is an interface or the integration between linkages in the supply chain and that commonly occurs from the manufacturer to distributor or manufacture to customer and then manufacture back to all its suppliers.

Let's face it. Let's me real here, Global capacity is exceeding global demand right now. And so, looking for better scheduling techniques inside of four walls. Instead of looking for better synchronization techniques across a supply chain or product structure, in my opinion is the wrong way to go.

There is a prerequisite order here to getting better. OK? The prerequisite order is step one, use stock positioning to decrease or dampened the variability between the links in the

chain. Step two then is once you dampened the variability that you are experiencing from suppliers and customers or consumers, now look inward and say OK, now, that we have less external factors impacting us...

What makes sense to improve our processes? Because if we improve our processes, we get faster. It reduces the inventory liability that we have to hold in order to protect ourselves against the variable demand or spikes in demand. In that way, we can allow that strategy to work kind of hand in hand.

The key is dampen the variability first then look inward, make a win there and then reduce the amount of working capital you have to have to dampened variability.

Joe: I think it is interesting because when everybody is talking about flow and the real experts that I find that I get the opportunity to even interview sometime. When they talk about flow, they talk about really managing the queue well, managing like you are saying outside the four walls of what's going on. That is really the hand-offs between the critical points and developing clarity and shorter cycles.

Chad: Think of it as a baton passed off in a relay race. You only have so much time to do it and it's got to be done very precisely. If you don't, you are disqualified or you lose the race.

Joe: When you are talking about this... This is what ASR is all about then, correct?

Chad: It really is. I mean ASR, Actively Synchronized Replenishment, is the idea of how to dampen the variability and to do it in a way that actually, in most cases, reduces the

amount of working capital and increases service levels at the same time. And the real key behind it is that first question to ask. Where does it make sense to put stock?

In more complex supply chains and in more complex product structures, there is often a very good answer and the answer that maybe hidden or not available today using common MRP techniques or simply just not asking the question where first.

Joe: It sounds like it's a perfect opportunity for software people. Why haven't they just created a software package that manage all this and tells you the critical points?

Chad: There are add-on providers that are beginning to wake up to the possibility here and are beginning to go down this road. The biggest obstacle I think they're going to have is the tendency for a company that owns a major ERP system to want to just try and do it inside their own ERP product. In fact, if you go to the major ERP providers and say, "Hey, here's what I want to do. I want to put these techniques into play. Can you do that?" They'll all say yes. And in most cases, a) they probably didn't listen to you about what you really wanted, and b) they probably don't understand that in most cases they can't do it.

There's a dirty little secret here with big software - the major ERP providers - about why they can't do it, but it distills down to a couple of different things. The first is that the people that really understand the way that MRP works, - and believe me, you need to understand the way that it works in order to fully appreciate what you need to do for the solution; what needs to change, what needs to stay - those people aren't in big software anymore.

In fact, when people like Joe Orlicky, Ollie Wight, George Plossl were running around in the '50s, '60s and '70s defining the rules of MRP, - that entire generation, the people that grew up, that built MRP systems from the ground up - that generation is gone. They're not with us anymore, or if they are still with us, they're probably disengaged to a large degree from industry. Today, the people that probably really understand the way that MRP works are probably the users themselves. In fact, they'll be your senior planners; they may even be a VP of Procurement or Purchasing. They understand how MRP works. They understand the workarounds that need to be put into place to make it work to fit their circumstances, but they don't reside in software anymore.

What we've seen here in the last 25 to 30 years is a tremendous stagnation of MRP logic - it really hasn't progressed at all. So the lack of personnel in big software is preventing big software from dealing with this issue. At the same time, big software is trying to push other types of "solutions." These would be things like advanced forecasting methods, or algorithms, or they're trying to simply put a band-aid on the symptoms with the assumption that if we can predict better everything will get better. I think we can probably slay that dragon pretty quickly, but people are buying this stuff.

The other thing too is that you have to have people that not only know MRP, but they also have to understand the new demand-driven techniques together with their knowledge of MRP. And those people are pretty rare out there that understand both what MRP does, what it does well, what it does not do well, what needs to change, in combination with people that understand the demand-driven techniques to a great degree. You really need that combination of the two sets of intuition to be able to scope a solution out and those people are few and far between, and they certainly don't reside in big software.

Joe: So if the software provider comes in here and all he talks about is forecasting techniques, I'm really going the wrong direction there a little bit.

Chad: In my opinion, yes. I guess the problem is, are you in-tune enough with what demand driven techniques are? Are you convinced that it's the right way to go for your business? Then if you understand it, if you know it's the right way, if you believe it's the right way for your business and you have a software provider come in and begin to talk about forecasting, you've got problems. Because forecasting, even the most ardent supporter of forecasting techniques cannot argue with one thing, and that is fundamentally a forecast is a push, not pull. Can it be a more educated push? Sure. But it's a push none-the-less.

If you are dedicated to demand driven techniques, the minute you introduce forecasting into your business, you are putting in two conflicting modes of operation. You are planning by push. You are manufacturing by pull or you're operating by pull. What we have seen over and over again is that the two conflicting modes of operation do not work well together. They often result in a misalignment between what the plant needs to make and what planning is providing for materials. The symptom of chronic and frequent shortages does continue.

Joe: So in a demand driven... maybe we should just back up and you kind of explain some of the key points of demand driven here, manufacturing, demand-driven organization so that we don't go too far down the path without really some real solid footing.

Chad: Right. Well, I think demand driven can be explained simply. All we are trying to do with demand driven is take our asset base and more closely align it with actual consumption. In order to do that you have to think differently about how you protect yourself and your market. That has everything to do with the tools and the rules that you are going to bring to bear through your business. You cannot continue to use the old rules that have their roots grounded in a post-World War II consumer society where it was push and promote. You've got to strip out all those old rules and tools and you've got come up with, or you've got to integrate, new rules and tools that are going to allow you to be agile.

You know, agile, the word agility is a big buzz word these days, or flexibility. Agility is the ability to read and react quickly or adapt to what the market desires. In fact, if you look up the definition of agility in the APICS dictionary it basically describes this Garden of Eden style world that nobody can argue with. The problem is, once again, our rules and our tools are not setup properly to get there.

Joe: I think that's interesting you say that because either you are in this push thing where we're forecasting sales by demand. We've seen that definition for fifty years or whatever. Then I also see this, like you're saying, maybe the agile definition or this definition of a pull thing which is really unrealistic too because there's got to be, like you were saying before, that's an oversimplification of how we can run an organization. There has to be something in between those works.

Chad: Yeah. That's a great observation you have, Joe. I think the whole point of what we're trying to do with ASR or what we're calling MRP 3.0 now is to say, "Let’s use some

elements of predictability and some elements of agility to see if we can come up with a sensible solution that protects us in the right place.

In other words, we can store capacity in critical key areas that best protect us. And then watch what happens and replenish those areas as actual consumption occurs.

The analogy I would use is, if anybody out there has a home on a well system, you don't just pump straight out of the ground to your faucet. In most wells, there's a tank where you maintain a charge to the well. So you can maintain pressure, you can get water on demand.

You're not bringing up tons and tons of water out of the ground. Nor are you trying to forecast what you're going to be using two weeks from today in terms of water supply? You have a buffer of water that is sufficient for your use typically within a certain window of time. And then that buffer of water is replenished as it is depleted. We locate strategically a position of inventory that is sufficient to protect us, within the time period. Then we allow that buffer to be quickly replenished based upon how it is used.

Joe: With that, you're managing the variability and volatility by having a buffer again. We go back to that. But, what you’re saying is that the buffer needs to be strategically placed, so that it's supporting, maybe the right word is other processes, than just one-piece flow. Are we going against that Lean concept of one-piece flow?

Chad: I appreciate the goal, or the target to get to single piece flow. I think that most people out there in manufacturing today, in most scenarios will say that target is, let's just say, at the very least, an extremely ambitious target for people.

Joe: Well, it's like the Holy Grail.

Chat: Right.

Joe: It's out there, but can you get it? Can you really find it?

Chad: I think more than anything, would you rather have single piece flow, or would you rather always service your customers with the least amount of disruptions and expedite related waste? I think sometimes we become so fixated on an objective, without understanding how that might affect our ability to service our market.

In some cases, the tactics we take to get to single piece flow may disrupt our ability to service our customers in the short run. I think that's something that we always caution people with. The objective of the manufacturing system is to maximize the market potential, all right?

Maximizing the market potential has a lot of different meanings. One of those meanings means we don't miss a sale. If that means that the way we don't miss a sale is to maintain short lead times, then we have to think about how we maintain short lead times.

Maybe the easiest way to maintain short lead times, or the quickest, most effective way to achieve short lead times, may have nothing to do with achieving one piece flow.

Joe: I have a certain value stream for this product and in that value stream there are certain queues in there, waiting for supplies. My queues, I don't need to consider that how

much as much as I need to know where to put the queues to feed the flows the best. Is that what you're saying?

Chad: Absolutely, absolutely. And the queues should not reside everywhere. Often times... for instance, Joe, you just brought up an interesting example. Let's just say we have two different value streams. Here's where we can all get a little confused sometimes. It's like the word "cost." If I say, "cost" it means nine million different things to nine million different people. Let's just kind of think about when you say, "value stream" what you really mean here.

Inside manufacturing we've got two things that tell us how things are made. We've got something called a bill of material, and we've got something called a routing, correct?

Depending on how you do a value stream, you may hit aspects of both the bill of material and the routing, correct?

What we really want to do is we want to look at the bill the material as just simply the components of what makes up an end-item, right? And the dependent nature and the prerequisite nature of those components where the routing depicts activity run rates, things like that, as well as sequence.

What's important to note is that often times in a lot of manufacturing companies, maybe they'll have 100 end items and maybe 1000 child components that go into those end items. Often times what happens is between those different end items, several of those child components are actually shared between the end items. What we are really looking for are areas where the bills of material overlap where we can leverage inventory positions

between the most end items. Those become key or critical areas to buffer in. Another critical factor might be; are there areas of the facility or particular resources that can't afford to be disrupted either because they have limited capacity or because disrupting them means a very big quality issue? There are factors that we have to take into account that look at bill of material and in particular there is something called a matrix bill of material. Nobody uses matrix bills of material, but matrix bills of material will show you where there is overlap in the bills of material.

Just because a child component is shared among parents doesn't qualify it automatically as a good place to position inventory. It should also lie on the longest unprotected sequence in the bill of material. We are getting into the detail of how to answer the question, “where?" Depending on the environment, it can be a fairly complex area but the answer could mean literally millions of dollars.

Joe: When you're sitting there with that "where" question, it's not like there is just a five-step formula that I go through and I find out where?

Chad: Well, there are actually six critical factors that factor into answering the question, “where?” Depending on the environment, those differing factors will be more emphasized or less emphasized. It just depends on the environment. Particularly it depends on the product structure in the environment, maybe the amount of suppliers, the amount of long lead time components, the size of the routings, the complexity associated with the routings. To answer the question where, like I said, there are six main things to focus on, but the answer will vary between environments because every environment is a little different.

Joe: You don't sit there and weight them such as, like a CTQ type thing and weight them accordingly?

Chad: No. Any type of equation… you know, what's funny is we're writing this book, I'm writing the solution side of it. Instead of giving a precise formula, what I'm doing is I'm giving ranges because, if I were to give any precise formula, there would be massive amounts of exceptions. The issue is can we provide a range? Can we show how the factors are important? Can we describe what environments they are important in? Then can we give them a range that leads planners in the right direction to say "this is where you should be targeting, in between this and this" and then tell them why. Ultimately the planning personnel have to account for their unique sets of circumstances. We're just kind of providing a guide.

Joe: If someone wants to learn more about ASR, where would you send them?

Chad: There are a couple of places that they can look. One place is on the web at www.beyondMRP.com. There's quite a bit of stuff there. We answer some more questions in depth about ASR. We even look at some case studies, I believe. And then there's some webinars associated with it too.

The next thing is chapter 12 of the new Theory of Constraints Handbook goes into ASR, and I think one of the things people shouldn't be shy about or should understand is just because this chapter is in the Theory of Constraints Handbook what you'll find very quickly is that the chapter isn't about the theory of constraints, it's about what I believe is a much

broader topic, and that is "how can we bring our planning rules and tools in line with demand-driven concepts," whether it wants to be Lean or TOC.

You know, Joe, sometimes I think the Lean and the TOC community just need to get over it, right. For whatever reason, there is this subtle perception that they're in conflict. There is no conflict between the two. In fact, they have a common objective in my opinion. The common objective is to figure out how to get planning rules and tools that are going to enable them to be more successful on the manufacturing floor. That's what I think they both have in common in a big way.

Joe: We should mention that your chapter, can be downloaded on Kindle individually on Amazon too, correct?

Chad: That is true. I believe they charge a pretty nominal fee for a Kindle version. And then also, if you go on the McGraw-Hill professional website, you can buy a pdf version of the chapter itself.

Joe: Has this been implemented. Are there companies practicing this now, or is this just all in theory?

Chad: No, no. There are companies doing this. In fact, I think that's one of the great kinds of aspects behind what we're doing here and what we're writing. We're able to draw off of several examples where we've actually put this into place and the kind of results. In some cases, honestly, people won't believe the results. The results have just been staggering in some cases.

Joe: What has been the response to the implementation? The results always, of course, speak for themselves. Did people find it difficult to implement or difficult to change their thought perspective to get this accomplished?

Chad: The answer is, I think, to a varying degree. Change is always difficult for organizations to deal with and certainly larger organizations have some very difficult time with change. In some cases the change could be intuitive, it could make a lot of common sense, but the other factors come into play, "well we just spent $30 million on this new software package so we're not going against that."

Let's think about what the impact of the organization is if the impact of the organization is several hundred million dollars in freed up working capital with better service levels, well then it makes sense to do it.

The answer to the question Joe is, it depends and in some cases we've had situations where people have been able to flip the switch essentially in their thinking, in a matter of weeks, and in other cases its taken months. In one particular case I'm dealing with, it has been 18 months, and we're just now beginning to crack the political barriers involved with moving this company to this type of solution. This company though is a global Fortune 500 company. You can see that sometimes there is a little bit of red tape associated with stuff like that.

Joe: What do you think Joseph Orlicky would think of your third version?

Chad: Well first of all, and shame on me a little bit, maybe when I first talked about the book I should have given my thoughts on Orlicky. Joe Orlicky in my opinion was a true

visionary. For listeners right now that have not read that book, you would be astonished, how spot on he is even in today's environment. I would definitely recommend going and buying the first edition of that book and reading the first few chapters it really is mind boggling how visionary that guy was. I have a lot of respect for Joe Orlicky and I would like to think that he would look upon our work with a big smile.

In particular the reason why I say that is, his whole reason for explaining the need for MRP and a different way was that, when rules and circumstances change you've got to adapt to it. You can't continue to do the same thing over and over again when the environment is changing around you. We're taking that exact same tactic in this new book, by saying look, the rules have changed or the environment has changed and to continue to operate with rules that don't fit the environment is kind of insane. So I think he would be happy, I hope he would be happy let's put it that way.

Joe: Chad, how could someone get a hold of you if they'd like to contact you?

Chad: Really, on email, is probably the best way. My email address is CSmith@thoughtwarepeople.com. It's kind of a confusing web site address but we have kind of a saying that says before you buy the hardware, before you buy the software, make sure you have the right thought-ware loaded so, we have a website called thoughtwarepeople.com so CSmith@thoughtwarepeople.com would be a great way to get a hold of me.

Joe: I'd like to thank you very much Chad for this opportunity to talk to you, I learned a great deal I enjoyed it very much and this broadcast will be available on the Business901 website and the Business901 iTunes store. So again, thank you Chad.

Chad: Joe, thank you very much it was a pleasure.

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Podcast Transcription

Implementing Lean Marketing Systems

Joseph T. Dager

Lean Six Sigma Black Belt

Ph: 260-438-0411   Fax: 260-818-2022

Email: jtdager@business901.com

Web/Blog: http://www.business901.com

Twitter: @business901

What others say: *In the past 20 years, Joe and I have collaborated on many difficult issues. Joe's ability to combine his expertise with "out of the box" thinking is unsurpassed. He has always delivered quickly, cost effectively and with ingenuity. A brilliant mind that is always a pleasure to work with." James R.*

Joe Dager is President of Business901, a progressive company providing direction in areas **such as Lean Marketing, Product Marketing, Product Launches and Re-Launches. As a Lean** Six Sigma Black Belt, Business901 provides and implements marketing, project and performance planning methodologies in small businesses. The simplicity of a single flexible model will create clarity for your staff and, as a result, better execution. My goal is to allow you spend your time on the **need versus the plan**.

An example of how we may work: Business901 could start with a consulting style utilizing an individual from your organization or virtual assistance that is well-versed in our principles. We have **capabilities to plug virtually any marketing function** into your process immediately. As proficiencies develop, Business901 moves into a coach’s role supporting the process as needed. The goal of implementing a system is that the processes will become a habit and not an event.

Bringing New Thoughts to the Supply Chain thru MRP