
Manufacturing Startups: What You Need To Know

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Steve Rucinski: Well, hello everybody, this is Steve Rucinski. I'm going to be your host today. Anita is not with us.

Our show today is about small manufacturing startups. But first, let's hear from our sponsor Infusionsoft who has a tip for us today.

Steve Rucinski: Thanks, Infusionsoft.

Now, let's get on with the show. Today, our featured guest is David Crain who is director of entrepreneurial services in an organization called Magnet. David is here to discuss manufacturing start up. And ways to increase your audit for success and one short cut entrepreneurs are using.

Manufacturing today requires a highly skilled workforce, a lot of capital investment. And customers are demanding ever-changing products as well as a focus on internal procedures just to stay competitive. With technology, cheap outsourced labor and global assistance providers seems like it should be easy to start a manufacturing company. In fact, the challenges have become greater.

Welcome to the show, Dave!

David Crain: Thanks, pleasure to be here.

Steve Rucinski: Why don't you tell us a little bit about yourself, your background and what your role is?

David Crain: Well, I started my career with Goodyear Tire and Rubber Company, as a systems analyst. At the time, I was in charge of — at the time, the big five auto manufacturers.

It's changed a little bit over the years from there. I moved into auditing and got an opportunity to travel all around the world and audit Goodyear's manufacturing facilities both domestic and international. From there, I moved to Cap Gemini America now Sogeti. Had a variety of jobs, both service consultant and account manager, working again with a number of manufacturing companies in the northeast Ohio area.

I now work for Magnet. Magnet stands for "manufacturing advocacy and growth network." We're an organization located in northeast Ohio. We basically provide services for all manufacturing companies all throughout northern Ohio to help them start businesses, grow their business or get competitive in their existing business.

Steve Rucinski: Great, thanks. And we'll give everybody some more detailed contact information about how they can find out more near the end of show.

How does starting a manufacturing business today differ from starting any other kind of business? We've had a continuous stream of business entrepreneurs on here, but we haven't had too many manufacturing startups. What's the difference about a manufacturing startup today?

David Crain: Well, I guess I'll take a contrary viewpoint and start up the conversation by saying there's an awful lot that isn't different. I mentioned Magnet, we had a variety of others, and maybe I'll get a chance to talk about some other ones. One of the main divisions here, we have an incubator, that's my job, I work with the incubator and work with entrepreneurs and startup businesses day in and day out.

There's an awful lot that's consistent across the board with regard to whether you're starting a manufacturing company, an IT company or manufacturing company and all the basic stuff that I'm sure all the entrepreneurs have talked about, it's connecting your products or services with a marketer and making sure you can deliver those products or services in such a fashion you that can make money off doing that.

So for any entrepreneur, again, whether they're manufacturing or technically nothing-based, that's really the first step that we take them through, just that basic business model that they're thinking and kind of do some assessment of whether it makes sense.

Past that, from a manufacturing perspective, what we see, that is different from a lot of other sectors -- maybe not all sectors, but many other sectors -- is a much higher upfront cost. You have not only the normal market research and focus groups that you might have in other sectors.

You've got engineering. You've got prototyping. You've got raw materials. If you're setting up a manufacturing operation, you might have huge capital equipment investments. The biggest things we see in manufacturing is those high, upfront, investment costs.

Steve Rucinski: All the more important to be, as you said earlier, to aim accurately or market . . . to have the cost and have your market knowledge and where you're aiming.

David Crain: Absolutely, we have a saying when we deal with any entrepreneur, it's '*sell early and sell cheap.*'

Especially if you're a manufacturer and you're talking about creating a product and taking it to the marketplace, we're going to do anything and everything. We're going to ask every challenging question we can think of as early as possible to get you to decide that there's not a market opportunity as opposed to going into business, taking out a second mortgage and finding the market's not adopting the product.

Steve Rucinski: Good point. Now, it's not—I think many of us have a perception that the whole world around manufacturing has changed. What are today's unique challenges that are different than maybe what previous generations had to deal with?

David Crain: Good question. I think one of the biggest things is, and this is not a surprise, but, you know, we've all gone global. And that's not just the issue of competition against the far east when it comes to cheap labor. But everything's global. Your supply chain is global. Your customers are global. Your suppliers in many instances are global.

That's something that really, I think, a couple generations ago wasn't a big concern for a lot of manufacturing companies and figuring out strategy around that is key to success. The other thing is things have gotten a lot more technology and process-oriented.

On the process side, and this is something that Magnet helps companies with quality systems like ISO, Six Sigma, lean manufacturing, concurrent and collaborative engineering, collaborative manufacturing. Lean manufacturing, rapid tooling, all those things are making it a much more technology-focused operation than it was in years past.

The other thing that we see the big challenge for today's manufacturers, along with all the technology and all the process improvements, is the skill level and the technical skill level of their workforce is a lot higher than it was in years past.

At least what we're seeing in northeast Ohio is. There's a real challenge with our manufacturers in finding a workforce that has those technical requirements. But they're also competing against the imaging manufacturing which . . . the imaging manufacturing hasn't caught up. People think of manufacturing as machine shops or tool and die shops, where it's a high-tech division these days.

Steve Rucinski: Interesting. It sounds like the old model: people, process and technology. They've all scaled at a different time. Well, I would think, you know. . .all the global stuff you mentioned? You know, the global workplace? I would think that there's more competitors than ever. They're going to be sharper than ever. Is that a true thought?

The barriers to entry . . . it would seem because there's more knowledge spread around the world, it's competitive . . . a more competitive world to execute better?

David Crain: Absolutely. Absolutely, more competitive. But there's also a bigger marketplace, too. The pie's bigger for everyone. But I would absolutely agree. It's more competitive. The barriers to entry are higher.

As I mentioned technology requirements have gone up to compete efficiently. Talent requirements have gone up. That's not just in your shop floor workplace, that's in your executive suite and managerial area, too. Those people have to be familiar with the newer processes and standards.

And it's more complicated. We are in a global economy. And, you know, those competitors could also be suppliers, maybe. Those low-cost labor folks over in China could be the folks that manufacture your subassemblies, and they get sent back over here final assemblies, these days.

Steve Rucinski: Complexity has gone up, but the opportunity has gone up?

David Crain: I think that's fair to say, yes.

Steve Rucinski: I think you covered one of these, but if you had to list manufacturing startups, what are the top three factors that might determine success? I think one of them was aim accurately, you talked about that. Sell fast, sell early, I guess?

David Crain: Yes, I think that's table stakes for any startup.

Steve Rucinski: Yes, you're right.

David Crain: Whether you're in the manufacturing or technology, if what you're trying take to market . . . and there's no demand for it, then you've got a tough road to hoe. I think for manufacturing startups today, three success factors that I would throw out would be first and foremost, efficient capitalization.

You know, again, we haven't talked about. . . there's a pretty wide spectrum of manufacturing organizations and entrepreneurs, both inside and orientation. If you're trying get into the manufacturing space and you're undercapitalized, you're putting yourself in a hole right from the start.

I think the quality of workforce is critical, as I mentioned both managerial and on the shop floor. And I would extend that outward in today's day and age to include your outside advisers, whether those are consultants, your board, trusted mentors.

Again, not to beat a dead horse, but things have changed in the manufacturing space and making sure you've got good quality processes and technologies is critical.

Then I would just emphasize that again. That these newer techniques. . .again, our company, Magnet, focuses exclusively on manufacturing companies. It used to be that these were cutting-edge processes. Now, we would say they're required for just getting in the game. That's things like manufacturing, lean office, Six Sigma, ISO. Focus on quality orientation and focusing on your customers.

That's just . . .everyone has to do that to be successful these days.

Steve Rucinski: Let's talk about how the manufacturers are emerging, how they using the Web today. It's a whole new wave of technology and connection ability. What are the applications that

you're seeing people using the web for?

David Crain: You know, I have to say, I think this is probably one of the biggest areas of opportunities for today's manufacturing companies. And, you know, I certainly don't have my finger on the pulse of every single manufacturing company worldwide and how they're using the Web.

But case in point, just a couple weeks ago, I had the opportunities to moderate a panel of three more service-oriented companies on how they were using Web 2.0 techniques and social media channels to drive our business. And the group we were presenting to was comprised of probably about half manufacturers, half financial and educational.

Looking at the surveys, after the fact, it was easy to pick out the manufacturing responses versus the financial and educational comments like, *"All this media stuff sounds an awful lot like the internet pre-2000. And we all know what happened there."*

So I think folks learned their lesson from the Internet. They learned it wasn't hype. They put up an informational Web page. Maybe they tied it into back end systems so you could order product or track the status or history or something like that. But I really think manufacturers are struggling to understand the ROI for leveraging of manufacturers.

You tend to get so caught up to being able to connect the dots. I invest \$1,000 in the marketing budget and I can see an increase month after month. It doesn't always work with Folsom and web 2.0. I think manufacturers are trying to understand how it's got to work. And I think there's an opportunity for early adopters to set themselves up in the coming years.

Steve Rucinski: Feels kind of squishy for the manufacturers?

David Crain: Absolutely, you know, and it's . . .

Steve Rucinski: They're used to inputs in, inputs out, what do I get out?

David Crain: Right. I guess I could say, if you're a manufacturer, one might be all those goofy kids just out of college who spend half their day on Facebook and have long hair and tattoos . . . hire one of those kids. Put them in the marketing department. Embed them in your sales team and listen to their crazy ideas and see what seeds germinate from it. I think folks would be surprised.

Steve Rucinski: Let's talk a little bit about Magnet as one example of what kind of resources are out there to help a manufacturing startup. Talk a little bit about how you guys are organized. How would a startup approach you? If you have insight into other Magnet-type organizations around the country, around the world . . . you might share that, too?

David Crain: Well, Magnet is an example of what's called in the United States a manufacturing

extension partnership. We are nonprofit. We are funded in a variety of ways. But one of our prime fundings come from the federal program called NIST.

It's program is to create regional development. In the MEP program, it's manufacturing. We are the larger MEP program around the country, but there's several in the United States. If you're interested in finding if there's one close to you I would search the NIST website.

We service more than eastern Ohio. And we have three main divisions. One is our consulting services division and that's set up just like a consulting firm for manufacturers. All of these certifications of Six Sigma, quality procedures, workforce development, lean manufacturing, gross strategies, all of that stuff.

We have a product design and engineering division that will work with companies from the point when you're brainstorming new products, from designing them, engineering them, doing market research. Doing industrial design, prototyping them . . . everything up to - but not including - manufacture. That whole design and engineering process . . . and the main pillar is the incubator.

We have 30,000-plus space devoted to manufacturing and technology-oriented startup. We provide full service coaching and mentoring for those startups - whether they're an incubator or not. And that includes, you know, as early as somebody walks through the door and says, "I have a great idea and I don't know what to do next." Up to, and including folks that are much further down the path and looking for their first, second or even third round of funding, and beginning to enter the market.

As far as getting in touch with us, if you're in the northeast Ohio area, the easiest thing is to go to the Magnet website. www.Magnetnetwork.org. If you're elsewhere in the United States, I would search for NIST and check that website closest to you.

Steve Rucinski: Do you know the URL or web address?

David Crain: I don't offhand. It's the National Institute of Science and Technology or NIST and the program is the MEP program. Other case sources to check would be your local chamber of commerce, your state or local government program.

Most of these services are part of local or regional or state or even national or economic development initiatives. Those are great programs to start to find out what programs are available for your area. What's available in northeast Ohio might be different than what's available in the country.

Steve Rucinski: Thanks for sharing all of that. If I were to use your services, do I have a cost? How do I get to participate in the various areas, design, engineering and incubating? Is there a cost?

David Crain: Great question. All of the programs are set up differently. Our particular program, our consulting services and our engineering services, are a fee for service. So we do charge for those.

The incubator, all the coaching and managerial, are all no cost. And if you decide to rent space in our actual physical incubator, there's a reasonable charge for the space just because we have to cover our overhead. But the real benefit that we're adding, which is all the coaching and mentoring as you go through the entrepreneur incubation, that's no cost because of our funding.

Steve Rucinski: Thanks. We're going to shift a little bit. It's great to hear that our show Small Business Trends Radio is located in northern Ohio. Anita and I are located here. Even if you're not in Ohio and would like to take advantage of these resources, we'd love to have you move to Ohio . . .

David Crain: Absolutely.

Steve Rucinski: . . . and do your startup here. Dave was using examples of resources applied relative to development, particularly with manufacturing. Is my observation . . .

David Crain: That's a great point, Steve, and I'd be remiss if I didn't mention that the state of Ohio is doing a lot of stuff over the last couple of years to really bring us up the ladder as far as entrepreneurial activity in general.

But also promote the fact from a manufacturing perspective. We are well situated to be one of your prime choices as manufacturing destinations. I would suggest doing another search for the Ohio Business Development Council, OBDC. I believe that URL is Ohiomeansbusiness.org.

And they have a lot of organization. If you're looking to relocate your manufacturing company to Ohio or you're a manufacturing company in Ohio looking to better understand our capabilities and programs, they have all kinds of stuff on there. From how geographically, we're one of the perfect distribution centers in the country, to talking about . . . because of the Midwest cost of living, how you can get resources at a much substantially lower cost basis than maybe on the coast. So there's a lot of great information on that site.

Steve Rucinski: I think the other thing is, you know, depending on what you want to manufacture, you may have a ready-made market in your backyard?

If you're a subassembly maker for somebody, depending on what you want to manufacture, you may have a market available here. I didn't want to turn this into an Ohio commercial, but that's okay. I thought I'd do that because we have that opportunity.

And there are great resources here. You just highlighted that. One of my questions is going to be what are some ways to reduce startup costs? And I think you sort of highlighted Magnet services or a Magnet peer somewhere that might exist across the country could be a way of

doing that? Are there other ways of starting up to reduce costs?

David Crain: We kind of have the teaser in the intro about one short cut, many entrepreneurs are using.

Steve Rucinski: Right.

David Crain: I think the sort answer to that is, if you want to be a manufacturer, I can think of a few ways to reduce those startup costs. If you want to go through the process of creating a product, engineering that product, creating the product and distributing it out, then you're basically stuck with the engineering costs. Capital equipment investments. All the tooling and dieing.

To that point, we see some folks ... I know outsourcing is a bad term ... let's call it '*strategic partnership*.' Our product engineering department, for instance, they are the engineering department for some local manufacturers. Manufacturers decide they don't want to get in the business of being an engineering firm, nor hire engineers, so they'll work with us to do all the engineering. And we'll have joint sessions with them.

The other thing we see some manufacturers doing, especially entrepreneurs, is called tool manufacturing. You don't have a manufacturing facility. You own the product, you design the product, you have the secret formula for the product, and someone else does the manufacturing for you. And they'll charge you based on units produced.

What I was speaking about in the one short cut to avoid startup costs altogether, we see this with entrepreneurs and especially in the consumer product sector, is challenging the entrepreneur with the question. "*Do you want to be a manufacturer or do you want to be a marketer?*"

And many folks, because of the high-skill costs in the startup workforce are choosing not to be manufacturers. They're taking ownership of understanding their market. Understanding what will sell in their market. Bringing that product to the market and making sure it gets bought, and all the production. They're just not worrying about that.

Whether that's overseas for low-cost products or whether that's in the state for higher quality advantage of toll manufacturing or strategic partnership.

Steve Rucinski: Wow, great points. Lots of different flavors for manufacturers these days. To digress for just a second, we've got about four minutes left. You know, with all of the stuff going on economically, we hear this all the time, "*Is manufacturing a dying sector in the United States?*"

David Crain: I don't think so. I think what's happened is it's just changed. The sector is certainly under pressure, and there's no doubt that low-value, repetitive manufacturing has moved overseas to a larger area. But I think we're seeing markets overseas that are starting to

reverse that trend. I think it's shifted.

I think it's interesting to me that no one wants to talk about the manufacturing sector but everyone wants to talk about medical devices and wind turbans. Well, all of those things are manufactured products, too.

A certain part of the answer to the question is some of what we used to call classic manufacturing is getting reclassified as sexier sectors. I don't think it's dying. I think there's still great opportunities here in the states and elsewhere for high-tech specialized manufacturing. There's a global marketplace out there for you if you can get past the startup.

Steve Rucinski: Great, thanks. How I look at it is . . . look around, everything that you see is tangible. Somebody had to make it, no matter how sexy or boring it is. The buttons on a remote control, somebody had to manufacture those things.

David Crain: Absolutely. I've worked with some of those companies and there are folks who are living in a very nice house and driving a very nice car for nothing else than selling the on/off switch to a lawnmower.

Steve Rucinski: Well, Dave, tell us where we can find more on the web about the Magnet network?

David Crain: I'd go to www.Magnetnetwork.org. That's Magnet. If you're interested in the five incubator collaboratives, and our incubator is part of Northeast Ohio, that's Neoinc.org. For more information on the federal manufacturing extension program, I would search for NIST and MEP.

Steve Rucinski: David Crain, Director of Entrepreneurial Services at Magnet, thanks so much for being with me today.

David Crain: Thanks for having me, Steve. It's been a pleasure.

Steve Rucinski: You've just heard another in-depth entrepreneurial interview on Small Business Trends Radio and I want to thank you very much for listening.

You can find archives of this show and others on the web at smbtrendwire.com. Please join us next week, same time and same place. We're on Tuesdays at 1:30 p.m. East coast U.S. time.

Until next week, I'm your host Steve Rucinski. And that's a wrap!

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