

Executive Insights: An Interview with Evren Ozkaya, Founder and Chief Executive Officer at Supply Chain Wizard

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Abstract

We interviewed Evren Ozkaya, Founder and Chief Executive Officer at Supply Chain Wizard, LLC. As a supply chain management consultant, he told us about the key turning points in his career and the latest developments in the supply chain management domain and in the pharmaceutical industry. He discusses the shift towards digitalization, new regulations that require track and traceability at the unit level, the benefits of having a digital supply chain, as well as the barriers that stop companies from having one. He explains the characteristics he looks for in recent graduates and the skills necessary to be a successful professional, consultant, and entrepreneur.

Could you tell us about the path that brought you to your current position?

By education, I'm a supply chain professional and throughout my career, I've been to many different industries, have focused on multiple different functional areas, assumed different industry, consulting, and academic roles. But one thing that stayed constant in my career is my passion for supply chain management. That was always there. I always touched the supply chain management aspect in any organization that I worked in, and my passion for supply chain is so much so that I named the company that I started more than four years ago "Supply Chain Wizard." So sometimes at conferences, they ask me "Is this the name of your company or is this your title?" I say

both. The first key point in my career was the decision to pursue graduate studies. I finished my undergrad in industrial engineering in Turkey and came to United States right after my graduation to start my PhD program in supply chain and logistics at *Georgia Tech*. That was a big turning point in my career. I did multiple internships during my undergraduate, my Masters, and my Ph.D. studies, so that added a variety of experience. Doing internships is my most important advice to students, who need to gain real life experiences as soon as they can. After the Ph.D., I started working at McKinsey & Company. So that's another major turning point in my career because it gave me the opportunity to work in at least six different industries and practice supply chain management, operational excellence, and operational strategies. So there was an accelerated learning curve with significant opportunities to have real world impact. Then I moved into the industry pursuing an opportunity with Sandoz (a division of Novartis). I became the director of strategy for the supply chain department and I led a number of transformational efforts. This was a major learning & impact opportunity as well. Then finally I started Supply Chain Wizard back in 2014 and the speed of learning, exposure, and impact exponentially increased with every new client, every new opportunity, every new city and country. I learned a lot and I continue to learn more, and talk more about supply chain at various conferences. Today I spend a good chunk of my time traveling. I was recently doing the math and it turns out that in the last four years I took 330 flights, totaling more than half a million miles (enough to travel to the moon and back). It has, of course, the downside of the work and life balance. But if you love what you do, travel presents many learning opportunities & unique experiences to grow.

So let's talk a little bit about what you see in the industry. What are some of the major trends?

At *Supply Chain Wizard* we serve the pharmaceutical and life sciences industries. We focus primarily in these areas. From a business perspective, the major trend is the pressures on pricing and the pressures of cost reduction. All of that is shaping the industry, big time. The rate of major innovations is slowing down in new drug discovery and the pressures of generic drugs are increasing for the brand owners. Therefore, there is a constant change in the industry. Probably one of the highest levels of mergers and acquisitions are happening in pharma because the industry is very fragmented and consolidations are happening at an increasing pace. But besides the business landscape, the biggest change I see is digitalization.

I think I can name all these buzzwords that we consultants are used to throwing around in the hope of gaining new business and making change happen like Big Data, IoT, blockchain, and data science. I think all of that can fit very well under the umbrella of digitalization. That is what we are seeing day to day. Every aspect of the business is moving towards more digitalization and the real competitiveness will come from the companies who are fully digitized in end-to-end operations. Our company is helping, in that journey, to identify gaps and opportunities for digital transformation, whether it's in the factory or supply chain management, supplier management, and the visibility or lack thereof with tier one, tier two, tier three suppliers. Many of today's challenges due to manual & archaic processes could be overcome via digital solutions and a digital mindset.

There is a big regulatory change in the pharma industry regarding supply chain security and traceability. This is now a regulation in over 40 countries, including the United States, European Union and virtually all major countries such as Brazil, China, Turkey, India and more. Governments now require drugs to be traceable at the unit level instead of the traditional batch level. With most consumer packaged goods, everything has a batch number and you don't distinguish between units. But in pharma, in the next couple of years, the majority of the industry is moving towards a transformation to track & trace and unit level traceability. This, of course, requires significant infrastructure investments to foster a major digital shift. We try to help companies comply with track and trace mandates while also uncovering areas that can be digitalized for streamlined production, supply chain management and data mining.

As a company moves towards greater digitalization, one would expect greater transparency, greater supply chain visibility, and decreasing costs? What other benefits are there?

Exactly. There are four major areas of return on investment in any operational transformation, and digital transformations are no exception. The top two are always cost reduction and revenue uptick. There are a lot of companies right now that are not fully using their capacity. They have lower utilizations and they do not know how to fully get the benefits of their manufacturing and supply chain capacity. A lot of capacity goes unused or wasted and that can be turned into revenue upsides very easily if you use the right tools and the right mindset. Building on the Lean Six Sigma principles, with the advent of digital tools, achieving these targets is now much easier.

The third big area of return is quality and risk management. For example, the number one metric in a manufacturing environment is what we call “right first time.” How do you ensure the products get out packaged ready to be used, and it is done the proper way the first time, without any rework or any additional quality issues? So you need to find the root causes, monitor the environment and fix those issues. Right first time is something digitalization helps big time. Of course with any transformation comes the issue of change management. Pharma struggles in change management probably the most because it is a highly regulated industry. With FDA, European Medicines Agency and similar organizations, it is very difficult to find the balance between regulatory compliance and forward looking transformational changes the businesses need. The companies who succeed in the next 5-10 years will be those who can understand how to optimize in this continuum of “how do I continue to stay compliant, but not over-invest or under-invest in compliance and invest in digital transformation?”

Fourth, and last major area of return is the speed to market. Companies equipped with digital solutions can more quickly analyze their business situation & scenarios, and have a more informed decision making process, leading to higher quality decisions. Ability to automate / partially automate core business processes (e.g., responses to new business proposals), will result in much faster speed to market, and it is an important core competency in today’s economies of ever-increasing pace of change.

As a supply chain professional, I longed for the day that we’d have chief supply chain officers in pharma, but that day never came. It came in consumer products but not in pharma. But here is what is happening right now. For example, my former company, Novartis, recently assigned a Chief Digital Officer in the C-suite and they are leading the way in digitalization by showing that this can be done. Starting from the R&D and drug discovery, digital solutions can lead to better results with lower costs and can have transformational impact. This in the end will help the patients pay less money for the drugs, which as you know is a very big problem in the US and all developing countries. The drug prices are going up. The cost of healthcare is now 16-17% of the US GDP (highest in the developed world), and it’s increasing.

So, I think we are at a fascinating time with all these changes happening at an increasing pace. The solutions are out there. It just requires the right leadership to take it on and approach this as a long term transformation rather than being focused on this month, this quarter’s results, or whatever Wall Street demands.

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What would you say are the biggest barriers that exist for companies that want to pursue digitalization?

More than 10 years ago, I worked with the *Intel Corporation*. When I was at the Intel fabrication facility in Arizona, I couldn't find where the manufacturing was happening. They told me to look up. I looked up and there are these gadgets flying in the air, automated transportation pods that are carrying wafers that are to be made into chips that we use in our PCs. It was one hundred percent automated and there wasn't a single person on the shop floor. There are only engineers doing testing after the chip is manufactured. This was 12 years ago. Nowadays, in pharma, I am going into many sites and there is still a lot of people, a lot of paper, a lot of pen logging. The gap between the high-tech or the consumer goods industries and pharma doesn't seem to be closing. In pharma we are struggling to catch up to that change and if you ask any executive, they will say the number one reason is regulation. It's highly regulated and it is difficult to initiate change. Additionally, there a lot of mergers and acquisitions. Let's say somebody is starting a change initiative and then a year into it, they are acquired by another company and the change goes in a different direction.

Another concern in change management is the human element. People are by default resistant to change and if they're experienced in what they do for over 20, 30, or 40 years, it becomes extra difficult for them to adapt to change. That is where we, consultants, come in to tell the story of change, the value it brings, and the biggest motto that I like nowadays is "digitize or die." If you're not digitizing, if you're not managing this change properly, you may not exist in the next 5-10 years.

Many companies, smaller companies especially, struggle with this change because they lack the resources and capital to make the change happen. The larger companies struggle with the change because of the status quo, and with layers upon layers of management they lack the agility necessary to change. I think the sweet spot is somewhere in the middle. You need to have the right leadership, who is open to change, and is taking the right actions. There are a lot of companies that can make this a competitive advantage and catch up with the larger competitors. At the end of the day, we will not see as many pharma companies as we have today in the future because of consolidation. Like we saw in the banking and consumer packaged goods industries, the pharmaceutical industry is also consolidating and in the long run, only the strongest and the most adaptable will win.

How do you evaluate the latest developments in global trade? What do you see as the major challenges in global supply chain management?

I see more similarities across different global markets than I see differences. This is especially the case in the pharma regulatory space. I was at a conference in London in January, and I witnessed a joint presentation between the European Medicines Agency and FDA. They are now talking about the steps they are taking to collaborate. For example, how they can collaborate and recognize each other's investigations. There is more and more collaboration and streamlining of the expectations in the world, especially among developed nations.

On the other hand, there are differences in factories everywhere. But it is more similar in the sense that there are more manual than fully automated sites out there. There are a lot of good examples of automation, digitalization and transformation, but that is the minority, not the majority.

From a trade perspective, more and more pharma companies outsource. This is a clear trend which increases the importance of contract manufacturing organizations and contract packaging organizations. There are hundreds if not thousands of contract manufacturers out there and they are competing for the increasing volume. But everyone needs to find a way to differentiate themselves, whether it's quality, cost, or responsiveness. It is possible to accomplish all of these at the same time. For example, Walmart being a cost leader, an operational excellence leader, and an innovation leader. Can we accomplish all of them at the same time, or do we need to pick only one objective?

I have a case example for this, *Uber*, which though not a supply chain management company is a technology company. They figured out a way to operate and supply the right price, much cheaper than taxi, in the right location, wherever you are. You don't need to go search for a taxi. They provide transportation within a few minutes, not 15, 20, or 30 minutes, and with very high quality, because they have a double review mechanism that allows you to know what you are getting before receiving the service. When we compare this to pharma, we are behind on all of those metrics. There are a lot of quality issues and a large amount of asset investments resulting in high costs. Once you place an order for a drug to a manufacturer, in some cases it may take up to six months before you receive it. We live in an *Amazon* world of instant and next day delivery but we have drugs that are coming in six months. By the time it arrives to the US market, the market conditions have already changed. So that is the big gap. But I think with the trend of digitalization achieving all of the important KPIs all at the same time

is possible and necessary. You can no longer only compete on one aspect, in one dimension.

Do you see academic research translating into industry practice? Do you utilize the research methodologies and tools from your graduate studies?

Well, that is a very good question. In the real world, a very small fraction of the industry is probably leveraging their technical learning and the research methodologies that are conducted in graduate schools. The same is true for me. I haven't gone into that level of detail and technical methodologies, but I can claim that whatever I did during my PhD studies I have put to use. I have leveraged the methodologies of looking at end-to-end, the system perspective, scenario planning, and understanding how to match the demand with supply. All these concepts that have been out there and studied in academia for decades is highly applicable in the industry. Of course, the pace of change in the industry is much slower and there are papers in inventory management that are from the 60s and the 70s that if you take and apply, you're going to get great results in the industry. But what is missing is the bridge between the industry and academia. I have colleagues who have published great research papers and their methodology, their algorithm is taken and applied immediately. There are such examples in revenue management in the airline industry. It all depends on how competitive the industry is and on how much you need to be cutting edge. If you are at the cutting edge, then I think the bridge between academia and industry is much shorter. For example, in high-tech, you have to be cutting edge in material sciences and in process technologies to invent the next generation of chipsets and CPUs. Otherwise, you're not competing. But in pharma, only a small portion of the cost base is the supply chain. So even if the cost in supply chain would double, some companies may not get hurt that much. That creates the status quo that doesn't lend itself to a good use of the academic research. Innovative firms like the big ones around us in New Jersey, like Pfizer, Johnson & Johnson, and Merck are investing in innovative supply chain research. There is significant investment in the applicability of blockchain technology into the pharma space. These are all great things. But it only represents a minority and these are not adopted by the majority of the players in pharma.

For example, in finance, we are talking about a split second advantage in Computer Aided Trading that can give you an edge in competitiveness. This is not the case in pharma supply chain. It is all about the underlying economic drivers. Of course, in Big Pharma, in branded pharma, where the

innovators are innovating drugs and the cost of developing a drug is much higher than the manufacturing cost, supply chain wasn't a competitive advantage. So, historically, they never focused on it. But now, with more and more generic competitors coming in, the prices sometimes go down to 10%, or even 5% of the innovators price or less. Then the innovator is forced to decrease its prices to compete. All of a sudden, your cost base becomes a significant portion of your revenue and you need to manage it much more closely. I think it's all about the need for change. If you need to change, then you're getting closer to the cutting edge research.

It is well evidenced that a key issue supply chain professionals face is the talent shortage and the skills gap. This is one area that the collaboration between academia and industry can bridge the gap and provide the right skills and resources. Let's face it, the concept of supply chain doesn't necessarily come across as very attractive to the students. Finance or marketing might be much more interesting. But I think of supply chain is the operating system of a company and you need people who know how to run it. Otherwise, you're never going to run your company efficiently. The people who need to run it are the new generation that needs to possess those skills and have the understanding, first and foremost, of end-to-end Supply Chain Management. Then they need to gain practical experience as part of research projects or internships so that when they graduate they can take on the roles right away because they already have the necessary toolkits.

I think this is one great area that academia can collaborate with the industry and that's what I see as part of my role as well. I find an opportunity to come to universities and talk to the students and inspire them a little bit about supply chain management. I get excited to tell them that there's a lot of potential to have an impact and to make a great career out of Supply Chain Management.

When hiring new employees, are you looking for any specific technical skills?

We are a small company. Globally, we have about 35 people right now, but of course we have hired many more than that over the years. One thing that I learned the hard way is that it is not about the experience of the candidate. It's not the specific skills that you should look for in hiring, but it is the stamina and the ability to quickly learn and adapt. That's the most important characteristic. Nowadays every consulting company has a digital department. Every major corporation started transforming with new technologies. We have not learned any of these in our previous jobs, it is all

new. So, we need to learn it now. Hence, you need people who are able to learn and who are interested in continuous learning throughout their career. That is the number one requirement. Years of experience doesn't matter anymore. After four years of constant hiring and growth, I'm no longer impressed by experience. I'm more interested in and excited about having a variety of experiences, being able to bring that 360-degree view of the world. Supply chain is such a topic that you have all these different aspects of it. You cannot be a supply chain expert if you just work in the supply side and have not seen the demand side or if you only work in procurement and you call it supply chain. You also need to know logistics and transportation. You need to get into the warehouse and understand how the warehouse works. You need to get into planning and understand how a planner plans for product supply.

Walmart has hundreds of thousands or millions of SKUs (Stock Keeping Units) that they're managing. You would think they have hundreds of thousands of planners? No, they figured out a way to make the algorithms work for themselves. Meanwhile in some big pharma companies they have a dedicated planner for each product category. Why is there such a large gap?

At Supply Chain Wizard, when hiring for entry level roles, we prefer masters or PhD students that have the ability to model a business situation, regardless of the modeling tool. They might be able to use an Excel spreadsheet, a MATLAB model, Python, or a different programming language to solve this problem on a repetitive, much faster, and much accurate way than a conventional approach. We need candidates to have the skills to conceptualize a problem and solve it, to be able to apply technology and come up with new, better solutions.

What would you consider the most important characteristic a recent graduate needs to have to succeed today?

After a long consulting career where I had the opportunity to interview numerous professionals, I think there are two fundamental skills that would make someone successful in consulting. The number one skill that is necessary is problem solving. The number two necessary skill is presentation and storytelling.

If you just have these two skills, forget about having SQL and data mining skills, forget about knowing PowerPoint. Knowing PowerPoint does not mean you have presentation skills. PowerPoint is just a tool. I used to think that problem solving and presentation skills are equally important. But over time, I realized that storytelling, presenting, and executive communication

are more important than problem solving. Today, you can outsource some of the problem solving to third parties. Some algorithms can rapidly solve your problem. But you cannot outsource your communication, storytelling and convincing skills to someone else. This is one area that many students I see need to improve big time if they want to be successful in their career. Because at the end of the day, that's the mode of operation in our jobs: we produce something, we work on a solution, and then we have to go and talk about it and sell it to other companies. We produce it, and then we go out and sell it. Problem solving and presentation go hand in hand. These are the two most important skills that students need to understand and practice. If they internalize that this is a lifelong learning, on both of these skills, then they can be successful in any environment, in any industry, and in any career they choose.

When did you decide you wanted to be an entrepreneur? In public's imagination, people typically think about Mark Zuckerberg and college dropouts, but you first went into professional consulting and had a successful professional career before starting your own company. Would you recommend your career journey to others that want to become entrepreneurs?

It is very hard to recommend specific instance of a career journey because it's never going to happen the same way for everyone. Everyone has their own unique journey. I didn't have the option to dropout from any school. I actually went all the way to finish the PhD. But I knew early on that I want to be an industry practitioner, even though I pursued a PhD. I just wanted to be an expert in the supply chain field. I always had the mindset of a practitioner, and not of an academician. I was always looking for ways to apply my knowledge and make a real change and a real impact. It's just a coincidence that after working in five, six different industries at McKinsey I was recruited by a pharma company. I was recruited by another top tier consulting firm alum who was building a supply chain department and that was a once in a lifetime opportunity to come into a multibillion dollar organization and to build the supply chain department fundamentals, the sales and operations planning processes, KPIs, dashboards and make a full transformation happen. That was a real experience and an eye opener for me.

Then this project came along as part of my portfolio of projects: I needed to manage the track and trace compliance project in Pharma. I realized that this is something really big and that can be something in supply chain management that my company could focus on because not many people in the world have done this before and it was a new regulatory requirement that

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impacted all the companies in the industry. It's a must. There were regulatory tailwinds pushing for it and I'm glad I took the opportunity to do that because, jn about four years into my entrepreneurial journey we have served nine of out of the top 15 global generic manufacturers, and many others. I cannot imagine doing that if we were just doing something nice to have. There's definitely a part of the success that is driven by the environment, by being at right place at the right time with the right knowledge. But then creating the rest of the journey is all about listening to the customers, listening to the people that you want to work with, and turning around and giving them what they want in an innovative way.

I wouldn't recommend to drop out to anyone. But I would recommend finding their own unique passion. If someone is interested in being an entrepreneur, I think they have to try this at least once in their life. I was lucky to become a director in a big pharma company at the age of 29. Well, I'm not going to retire until 65-70 years old. So I had at least 35 more years ahead of me and only few more levels of management to go in my career progression. That's how my thinking was and I thought I can always take a five year break and try something new, and if the worst happens and I cannot succeed, I fail, then I can be back to industry and continue my journey from where I left off. I think people need to have that leap of faith to do something different, and if they really push for it, if they're really passionate about it, it can potentially turn into a big success.

Any additional thoughts or words of advice for business school students?

I always enjoy going to universities, meeting young people and trying to inspire them and also be inspired by them. I want to give this message to the young crowd going through their college years: Meet with as many people as you can, network with as many leaders and peers as you can, because this crowd will be leading the world in in the next many years. It is their peers, their network that they are going to rely on and collaborate with. Looking back to my college years, as well as my years in Consulting and in Industry, one of my biggest regrets is that I didn't spend enough time increasing the size and quality of my professional network as much I could, which I truly believe is one of the leading success factors in one's career. There is a whole big world out there and the more you know, the more people you know, the more connected you are, the more chances you're going to have to make a big impact.

Thank you for making time to talk to Rutgers Business Review.

Executive's Bio

Evren Ozkaya is the Founder & CEO of Supply Chain Wizard, LLC, a management and technology consulting firm headquartered in Princeton, NJ, helping Pharmaceutical companies establish and execute cost-effective serialization / Track & Trace programs, as well as serving broader manufacturing industries with their supply chain strategy & optimization programs. Dr. Ozkaya pioneers and advocates the digital transformation journey for Pharma industry, by designing and developing software solutions to enable data-driven decision making and by authoring articles and presenting client case studies in more than 20 conferences per year around the world. Dr. Ozkaya received his Ph.D. in Industrial and Systems Engineering from Georgia Institute of Technology with his award-winning thesis on Demand Management in Global Supply Chains. Prior to Supply Chain Wizard, Dr. Ozkaya established the Global Track & Trace Program at Sandoz (a Novartis company) and led multiple implementation projects in Americas, Europe and Asia addressing all active serialization legislations. He also led a supply chain transformation program at Sandoz North America. Before joining Sandoz / Novartis, Dr. Ozkaya worked for McKinsey and Company in Americas Operations Practice as a management consultant serving various industries such as healthcare, consumer goods, industrial, logistics and private equity, helping clients in broader operational strategy, transformation and capability building topics.

Interviewers

*Can Uslay is an Associate Professor of Marketing at Rutgers Business School, Newark and New Brunswick. Dr. Uslay's research interests lie broadly within marketing strategy and theory construction. He is a recipient of the Chancellor's Award, the Valerie Scudder Award, and several Dean's awards for outstanding scholarship, teaching, and service. His research has been presented in various International conferences and published in the leading academic journals such as the Journal of Marketing, Journal of the Academy of Marketing Science, European Business Review, International Journal of Technology Management, International Journal of Business Environment, International Journal of Quality & Reliability Management, Journal of Business-to-Business Marketing, Journal of Public Policy & Marketing, Journal of Research in Marketing & Entrepreneurship, Journal of Strategic Marketing, Marketing Education Review, the Review of Marketing Research, and the Rutgers Business Review. He has (co)edited four and (co)authored two books, and over forty refereed articles/book chapters/sections (eight in re-print). He currently serves as the Chair of the Entrepreneurial Marketing SIG of the American Marketing Association, Area Editor for the Rutgers Business Review, and DSEF Fellow. His work experience prior to academia includes various organizations/functions such as internal consulting at a conglomerate, hotel administration, international marketing of consumer electronics, and assisting the State of Georgia for high-tech based economic development.
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Sengun (Shen) Yeniyurt is a Chancellor's Scholar and an Associate Professor in the Marketing Department at Rutgers Business School. He has an interdisciplinary research record, and currently serves as the founding Co-Editor-in-Chief of Rutgers Business Review. In his research, Dr. Yeniyurt studies market strategies using econometric models and bridges multiple disciplines: marketing, supply chain management, innovation management, and international business. His research has appeared in top journals in each of these disciplines and addresses a variety of topics including global market strategies, new product development and launch, brand management, supply chain strategies, supplier relationship management, and inter-firm networks. The impact of his research is evidenced by the many citations, awards, and media mentions he received. His research has been recognized by the Rutgers Business School when he received the Junior Faculty Research Excellence Award in 2011 and the Dean's Award for Meritorious Research in 2010. He frequently organizes and teaches in executive training and professional certificate programs.

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