Episode 158: Will AI Replace or Redefine the Supply Chain Workforce with SAP's David Vallejo

David: [00:00:00] Supply chain in my view, will get an evolution to become one of the most critical aspects of an enterprise and will be something that people wanna work in and they will be very comfortable working with AI together to move a company forward. We will become the most exciting and most important dimension of the enterprise. I would truly believe that an AI is the capability that will bring us there.

Richard: Welcome to the Future of Supply Chain, a podcast where we discuss hot topics, best practices, and the latest innovations in today's global business. I'm Richard Howells, and as ever, I'm joined by my wonderful co-host Oyku.

Oyku: Hello everyone. I'm Oyku Ilgar, a marketer, blog podcaster in the European supply chain area at SAP. Today we will be discussing all things AI and supply chain, and the top of a mind topic with many supply chain practitioners will AI [00:01:00] replace or redefined the supply chain workforce? Today we are joined by David Vallejo, who was our very first guest on this podcast series on episode one. Welcome back, David. Pleasure to have you here again.

David: Thank you for having me.

Oyku: Before we start, could you please introduce yourself and your role at SAP?

David: Absolutely. So David Vallejo, I run our global product marketing for our supply chain management applications including of our AI capabilities, which is at the front and center of this podcast. And so my role is to look out for future trends, work with customers, listen to the market, working with analysts and working with our product management colleagues how can we bring what customers need in the future to fruition in our platform and portfolio? Very happy to be here and have this very timely conversation.

Richard: One of the top topics that always comes up when we discuss AI is the role of [00:02:00] AI and the interaction with the human keeping, the human in the loop, for example. And the big question that we get asked is will AI replace

the humans in supply chain roles? And so the big question for me is, are you seeing that AI will replace supply chain practitioners roles or rather redefine them and empower them to do more with technology?

David: Yeah, look, I think this question is top of mind, right? It's top of mind for a lot of the professional fields. If you look at medical assistants, if you look at, anybody who is, looking at their job, it's is AI gonna be perhaps replacing me in supply chain I have to say roles have always been more redefined over time with technology changing and maturing. And I give you an example, right, [00:03:00] 20, 25 years ago, there was a role that was called the material expediter. And that was, when companies run their daily MRP and then they would go through the list of all the MRP actions of material that needs to be a day earlier, a day later. And that was a role, right? And the KPI, I remember one person saying, our KPI to run MRP actions is measured in inches. And I'm like, what do you mean in inches? We're printing out all the MRP actions and then we go through it line by line and then we execute them and then call the supplier if we couldn't have it earlier.

That role was over time replace with the maturity of planning systems, right? Because it actually doesn't really make a lot of sense to expedite material to get it a day earlier to the factory where perhaps the line is down for maintenance, right? Systems became more intelligent [00:04:00] and the material expediter became more sort of a higher level planner who understands the intricacies of manufacturing, logistics and supplier management more holistically. The rest of the sort of mundane tasks were, that was taken care of by the technology. And I think what we're seeing now is an extension of that, meaning roles will be redefined, they will be redefined actually in a in an exciting way where. The, some of the robotic tasks that a supply chain practitioner would do, I need to go in, I need to check one by one, and then I need to perform a task with a lot of copy and paste and clicking these things will be something that AI will be ready to take on, using some of the technologies that we have. It's very clear that those [00:05:00] things will now get a pace of being replaced much faster than even before.

So in the future we'll see probably new roles, higher level roles, more actually catering to the human ingenuity to make decisions where AI becomes the partner in crime to support that decision. And I think in the end, these roles will be more exciting we'll be more empowered. So I'm less concerned about replacing in the sense that it will replace everybody in the field. There will be certain roles that will be evolving into perhaps higher level roles. But Richard, I would also say that's that has happened over the years. So it's not completely new. It's an extension of what always happens when technology evolves.

Richard: It's just another example of another industrial revolution and [00:06:00] things evolving. In fact, it creates more jobs many times than less jobs.

David: Yes.

Richard: If we look across a typical company supply chain. And when SAP talks supply chains, we talk about everything from R&D through planning, manufacturing, logistics, procurement, and operations. Which roles or which areas do you see taking the lead in supply chain when it comes to AI and automation?

David: Yeah, I think the most immediate quick wins, and we see that in our innovation also that we do jointly with customers is anything transactional if you look at it, transactional meaning, for example. When you start in product design and you have hundreds of different specification documents that need to be organized, that need to be rationalized, that need to be shared, [00:07:00] collaborated with that whole document management was a very involved mundane terrible task if you think about it for a human being, right? That is something where generative AI can immediately help organize them, help with, getting all the stakeholder inputs, organizing this so that very transactional document level by level management is something that we can see where AI can immediately help. The same with logistics. I give you another example of the glue between sort of asset and maintenance and then scheduling field service personnel, right? And I work with these people. They have two big screens of one is looking at all the maintenance notifications.

Hundreds of lines and opening one maintenance notification and look at the nature of the problem figure out now who is the service personnel that is [00:08:00] can repair, that could do. I have the spare parts. Imagine that is your day. Eight hours a day, you look at two screens, line by line matching things. Again, very transactional. Now with our evolution of field service and asset management, bringing that together and having an agent actually helping with that matching to do anything from maintenance notification, maintenance order creation, down to scheduling and routing the field personnel in an optimized fashion.

Now what I can do in my role is become much more an exception management person who can actually look at this from a higher level. I can now finally focus on more continuous improvements. I can make recommendation how to perhaps avoid certain things and become much more of a [00:09:00] a pilot of this

activity rather than just being the ant that is running around trying to keep up with all the transactions coming in.

So these are all the examples where we see immediate quick wins. I think this is exciting for supply chain professionals because they now get empowered. We're taking out the robot in them instead of replacing them with a robot. And then the next level is helping actually with data assimilation and decision making.

So that's the next frontier of a knowledge worker to make sense of a lot of data, risk data, et cetera. So I think we're seeing this going in waves from transactional, mundane tasks to be immediately being impacted by an evolution of ai, taking that on, and then perhaps other capabilities across all the different supply chain pillars that will help me make more informed [00:10:00] decisions.

Oyku: David, I have a question. So I remember one time you said before the technology is now more mature than customers trust to fully embrace it. So what does that trust gap look like inside supply chain teams? Because I can imagine that resistance to change or resistance to adopt is a thing especially when it's AI. And what should leaders do to build that confidence, that readiness and adoption among the employees?

David: Yeah, one is certainly a psychological effect of course, if you have AI coming in and you feel threatened even unconsciously you get an allergic reaction, right? And so that is something that can only be overcome by presenting an initiative like that as something that is empowering. And we're doing this at SAP as well, we're introducing AI into all of the different roles, [00:11:00] including actually my domain of product marketing and enablement, and explaining what our products can do. And AI is actually very empowering here and can actually take on some work that was very laborious in the past. So first is, how do you even introduce AI to the organization, setting the stage is something that is empowering? The second element here is what I would call citizenship, meaning to get the personnel comfortable with using AI even in an experimentation way. It took some time even at SAP that everybody had like copilot and had access to the different language models. And we have now a flurry of tools that we can use for experimentation, Gen AI, HUB and LABS, and we can now create PowerPoints in our Gen AI lab, we can use it for writing papers. We [00:12:00] feel very safe because it is a safeguarded environment for SAP data. So that's the second element building trust with getting familiar with technology, I would submit that the largest objections against AI are coming from people.

Then if you ask them, have you ever really used it? They say no. So it's in the human nature, what you haven't used or touched yourself that makes you scared. Then the third element, which is when you get into a level of maturity and scaling, is providing transparency. So that is something that we build in our AI.

If it gives answers to something, if it summarizes something, if it gives you recommendations for decisions, it is citing all the sources it that is critically important. [00:13:00] Imagine you're using AI to make a medical recommendation based on a diagnosis. Do you want to just trust whatever it says or would you prefer it to actually say, and here's how I arrived to that conclusion.

So that transparency, I think is the third element. And that is something that we at SAP take extremely seriously. We're known for providing reliable software for more than 50 years, that is our brand. I can trust SAP. I submit that the AI that we want to bring to the market is catering to the brand that we've built the most trustworthy AI that you can use and scale and roll out across the organization.

Oyku: And supply chain leaders are [00:14:00] hearing a lot about assistance. And now AI agents and the companies say that we're gonna create 100, we're gonna create 1000 new agents. But in practical terms, how should supply chain leaders think about this digital colleagues showing up in day-to-day work, and what does that had to do with job design?

David: Yeah, look and I know that, sometimes we use these words of an assistant, of a copilot, of an agent, all interchangeably. The way we are thinking about an assistant is an assistant is actually designed for a specific role in the organization. So if you have a finance treasurer for example, even outside of supply chain, if you have a planner, if you have a work a warehouse clerk or an asset operation professional.

We're designing an [00:15:00] assistant that is catering exactly to that role, so that assistant has access to all the data that this persona needs to know. On which basis this persona is making decisions. So that is the first level of providing insights and that the assistant is not just somebody that reacts to you but is actually walking up to you and say, you need to know something.

So something that I can see, down the road, I'm waking up doing my job in the morning and my assistant is literally like my secretary is giving me a morning briefing. Okay. And say, here are the things that you need to know. So the assistant is really designed around a role. Now, the agent very important is

something that is connected to the assistant to collect the data that [00:16:00] is needed. So it has read capabilities of data, but it can also update change data and it can interact with other agents. So think of that in the old days, we would talk about a service oriented architecture, but these were rigid function calls.

An agent is something similar, but a lot more intelligent in terms of understanding the context being a highly dynamic function that can understand what context am I in, who do I need to call? Is this important enough? Understanding priorities, and so in the end, this assistant interacting with all these different agents will help us actually perform our job getting from insights from the morning briefing.

And two, here's what you know, decision I need to do. Here are the scenarios and options that are available to me [00:17:00] down to actually executing that decision. And that execution, I believe, is going to be the most exciting frontier. If you think about, when we started years ago with chat GPT and it gave us funny insights and I was using it for vacation planning,

I was using it for giving any kind of insights that I needed in the moment I am at a site somewhere in, in San Francisco is like, what is the history of this building? It gave me these insights, but now the next frontier is actually hooking that up with execution engine around, for example, booking tickets. I wanna do something fun over the weekend. Hey, we have some good shows around, a nice theater play. My wife and I would love to watch opera and theater. And now it can actually book the tickets. So that is the next evolution of going just from inside, making the decision, but also actioning it.

And we see the same thing now in supply chain that these assistants [00:18:00] together, paired with these agents, become very powerful enablers of the supply chain profession. So that is how I'm thinking about the assistant. It is an enabler of a certain role paired with the agents and yes, we are committed to develop a lot more agents so that the human gets out of still needing to do something and in some application. But just telling the assistant, give me that insight. Tell me what you know I should do, could do. Who to call and then actually actioning it and then actioning it is needing access to all the different, systems, transactions, needing access to my suppliers through a trading partner network. So I think it's the next evolution of digitalization that we will see that it, [00:19:00] and in my view, is very exciting.

Richard: You've done a great job of describing the role of assistants and I think we can have an assistant for almost every job moving forward in the supply chain, for example. But I'm really looking for some examples where Agents will

help the most. So do you have an and you used an example earlier around asset management and service management. Do you have any other examples where you see will be the first inter iterations of agents across supply chain?

David: Yeah, I mean there are other examples, right? The agents effectively will be helping to actually making changes if anybody has ever used an AI capability and getting an answer, sorry, I cannot do that for you. That is the frustration that an evolution of agent is [00:20:00] overcoming, right? So an agent getting access to a flurry of transaction.

So another example is, in the planning environment. Typically the biggest trigger in actually doing anything and planning is a change. So you have a change on the demand side that then perhaps warrants a change on my supply side. That is actually a big part of what planning is doing understanding the change. Is this change big enough? Does it warrant something? And then do I need to change my material plan, do I need to change my capacity allocation and production plan? Do I need to change my procurement plan? And sometimes planning then has to reach out to other execution systems to basically enact that change. Today we're doing some of that, of course, [00:21:00] with, really heavy lifting integration between all these systems. But guess what? Sometimes these systems are outside even of the enterprise. We're talking suppliers, we're talking logistics providers. We're talking non SAP systems. So the reality is this is where a lot of friction happens because I need to go and talk to people. I need to log into different systems. Now, imagine all of these interface points have an agent. So a demand change has happened. I'm running a new material plan that perhaps warrants a different schedule on the factory side, but that at the same time is currently on maintenance, so I cannot really accommodate that, but perhaps I can postpone maintenance. You see this domino effect of actions that need to happen if all of these have an agent. Now I have a chain of [00:22:00] agentic actions that can happen perhaps in seconds to give me feedback and say, this is feasible but, or this is feasible, but here's the ramification of that. Here is the risk associated with it. And if we're happy to take on all these different data points, then I can say, go. Can you imagine this big green go button that everybody's dreaming of? Now it becomes a reality because I have these agents that connected my demand, change to my material change to my manufacturing change to my maintenance change to my, going down to the supplier and getting that confirmation back.

All of that connected with an agent, and that takes away the need to integrate all these systems on the backend side. But I've had agents now that can act on this much faster, and it also provides much for nimble architecture.

Oyku: So what's the most effective way to rescale a supply chain organization so people can partner with AI instead of competing with [00:23:00] it?

David: Yeah. What I already mentioned is getting familiar with it, of course. And providing, also the right level of enablement. And the enablement I think is critically important. The level of training. We are doing a lot of these what we call boot camps and so not just dropping capabilities onto people and say, here's something new deal with it. That creates frustration ultimately, right? So the re-skilling is something that ultimately needs executive buy-in needs to have setting the stage of the purpose of this to make the organization better and perform better, and ultimately also having, an outcome associated with that like, why are we doing this? We wanna better compete, we wanna create a better customer service. Ultimately we wanna be a company overall that is modernized and is coming out ahead and will still continue to [00:24:00] exist in the next 10, 20 years. I think creating a level of positive excitement, first of all very heavy enablement and training, and taking that time also to do that and making it fun, right?

I think that is probably the recipe for, experimenting and making it fun and also, that is critically important, having an ear for concerns. Having an ear for, I don't think this is going to work. I heard this is really bad, or I heard, what if the decision that we're making is going to be wrong. Ultimately, somebody was telling the jokes, we will always need humans because somebody has to write up the blaming if something went wrong. So I think [00:25:00] is taking it with a certain degree of levity but also taking it. Seriously when there are concerns, I think this is very important. And listen to that and taking it seriously and not putting sort of a rubber stamp of you were just a dinosaur that lives in the past because ultimately the experience pairing the experience up with that modern technology is going to be the recipe for success. I've heard one organization a customer that I talked to who is actually pairing up the most experienced people with new workforce, young talent digital natives and pairing them up for the AI initiatives.

And I think this is actually a great way to take the experience so that the experience person is learning from the digital native. The [00:26:00] digital native understands really the complexity and of the domain and the experience and the sort of intuition that is built into the role and that mutual understanding, if they become friends, nothing can stop that AI initiative.

So I'm a true believer in that recipe when I heard that. And Oyku, that would be one way to go about the skilling aspect.

Oyku: And if you were advising a CSEO, what two, three metrics would you track to prove AI is improving performance like service, inventory, cost, re resilience, and strengthening the workforce experience.

David: That for me is always number one, putting the customer to say, how can we use this, almost like looking at that as a pyramid and at the top is the customers.

How can we provide better customer service, respond [00:27:00] faster. Being able to provide transparency to the customer. That's why AI has found its first introduction all on the customer service side, right? Because now I can provide much faster responses, provide more transparent responses, like why is this late? How, hey, can I change if this is not available in if it's a configured product, how can I change the configuration to perhaps get it earlier, oh, this is where AI can help. And now you're getting into something that everybody believes in. I wanna improve my customer service because if my company's doing well, I'm doing well and I'm coming out ahead. So I would see that KPI Oyku as the sort of number one goal to cater to everything feeds into that. If I improve my logistics, if I improve my planning, ultimately I'm improving my customer service. Now secondary, of course is [00:28:00] managing cost and also being a better steward for the environment.

I think these are all elements where AI can dramatically help to reduce waste, for example, and then, and reduce cost being incured on things that probably I shouldn't be in curing. With the example of, expediting transportation all over the place and wasting a lot of energy. That is a noble goal to reduce waste. So I wouldn't necessarily call it cost, but reducing waste. And that is something that I strongly believe in is a responsibility in supply chain as a, probably, running a lot of resources around the planet. That is another KPI to really look after. And I would say these two in itself, right? I always believe in a KPI also having a purpose and a noble goal. And I can see that any AI initiative should be in ultimately feeding into these in some [00:29:00] form or fashion.

Richard: David, we're coming to the end of the podcast. So you know, the last question that I'm gonna ask you. But if you had to summarize the conversation in a sentence or two from the role of AI moving forward and its purpose with the employee of the future, what's the future of supply chain?

David: I think the future of supply chain is gonna be an exciting one. I want to be very positive about this. I know that supply chain today it's like a all of a sudden it's a weapon and warfare. People are talking about supply chain in interesting terms, but I think that the supply chain of the future and

professionals that are in it will have, a much more important role for the enterprise, meaning we're moving again from the material expediter that lives in their bunker and running through the transactions to enterprise risk managers to [00:30:00] customer orchestrator to orchestrate a customer experience. Supply chain in my view, will get an evolution to become one of the most critical aspects of an enterprise and will be something that people wanna work in and they will be very comfortable working with AI together to move a company forward, the supply chain used to be, again, in the basement there was a lot of dust. There were computer fans that were very loud and people were just running their stuff. You could never succeed. You could only fail, and and the people on the top floor were asking supply chain, why are things not, running faster, more cost efficient.

We will move to the top floor. We will become the most exciting and most important dimension of the enterprise. I would truly believe [00:31:00] that an AI is the capability that will bring us there. So that is my feedback to that Richard of the future of supply chain together with ai.

Richard: David, you never cease to amaze me with your answers to that question, but that's, that was a cool discussion. Thanks very much for a great conversation.

David: Thank you very much for having me.

Richard: and thanks everyone for listening. Please mark us as a favorite and you can get regular updates and information about future episodes. But until next time, from David, Oyku and I, thanks for discussing the future of Supply Chain.