Episode 2 Embedding Sustainability in Supply Chains
Length of recording: 31 minutes

Transcription notes

I:	Interviewer(s)
R:	Respondent(s)
S:	Speaker(s)
wo-	an unfinished word
(word)	an uncertain passage in speech or an unrecognised speaker
(-)	an unrecognisable word
(--)	unrecognisable words
[pause 10 s]	a pause in speech of at least 10 seconds
, . ? :	a grammatically correct punctuation mark or a pause in speech of less than 10 seconds

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S: The Operation Leadership Podcast with Gautam Basu provides insight for today's business leaders on creating value through operations improvement, process excellence, digital innovation and organisational leadership. The following is an interview with Katri Kauppi. Katri is an associate professor at Aalto School of Business in the Department of Logistics and Supply Chain Management. She has done quite a bit of research on the topic of sustainable supply chains and in this interview we talk more about the topic. We hope you enjoy it.

I: Hi Katri, how are you?

R: I am good Gautam, how are you?

I: I am doing excellent, thank you so much for joining us on the Operation Leadership Podcast. So, you've done quite a bit of research in sustainable supply chain management which seems to be a very relevant topic among operation leaders.

R: Yea, I've done some research, particularly my own research has been more on the social sustainability and I've done a lot of teaching and obviously for that you do a lot of research to get the background so I've been teaching this topic both for master's student courses and in a various different modules in our executive education program because there seems to be more and more demand for this kind of topics.

I: Yea, it's a very popular topic and also quite relevant. So, maybe I can start up by asking you, so sustainability, it's a fairly broad topic and has multiple dimensions; carbon emissions, air pollution, child labour, deforestation, water shortages, worker and health safety issues and of course climate change. So how should operations leaders think about sustainability challenges?

R: Well, obviously the classical way is the triple bottom line; environmental, social and economic performance and I think it's very important to really think of it at a whole kind of supply chain level and all these things interlinked and you're kind of supply chain upstream and downstream towards your customers. If we think of things where we need to be heading towards, like circular economy to reduce use of virgin materials and reduce things we dump on dumpsites and reduce emissions and transportation and it really requires this sort of wholesome-, you know no one can do circular economy on their own, it's not a one company thing, by definition, in the name it's economy. So we really need to think of in a sort of wholesome way that different parties, different industries together see how we can reduce emissions, how we can reduce material usage. I mean there are statistics that we are currently using, two and half of (planet) resources per year and this is projected to go to four planets a year by 2050 and well obviously we can all do the maths that it's not really doable. So I think it's sort of material usage, emissions, how we tie that into kind of circular economy solutions and increasingly important is to keep in mind the social sustainability issues because I think they have isolated scandals come into discussions all the time but perhaps it's mostly dominated by climate change and these environmental issues. But we also need think of the social dimensions, so forced labour, child labour, worker health safety. In Finland there are workers' health safety, our society and laws cover it but if your supply chain extends around the globe then this really isn't the issue and there are again legislations coming. The EU is about to pass next year this sort of human rights due-diligence that will put a lot of pressure on companies to also start really thinking, doing, reporting, measuring these issues in their supply chain so need to think of it at a big scale.

I: It's such a broad issue, you touched upon the social aspect, the environmental aspect, so if someone is a COO or vice president of supply chain or global operations, do you have any advice on how to prioritise these issues? Or should you just kind of try to boil the ocean, do you have any advice on that?

R: Well idealistically I'd love to say kind of do it all but you know, one could say that the topic is idealistic supply chain management. I mean it's the right thing that we need to do. I also realised, I take a pragmatic approach to it. I realised that the companies are resource constrained and while it would be great to tell them to fix all these things at once, but then obviously it's not going to happen and you need to pick your resources wisely. I'm not sure if there's a generic-, like everyone should prioritise this or that because it depends a lot on where are you making the biggest negative impact currently with your operations and obviously also where can you resource-wise make the best positive impact quickly. Particularly if we're talking of emissions, we've all seen the ticking clock in terms of how quickly we need to react so I think it's important that for example, companies do some-, we already have companies starting to do it at least in theoretical level. This from secondary data, these emissions that give you already some indications of where your hotspots are and then moving to actual more real time measurements. But I think companies

should do these kinds of emissions calculations and then prioritise where the hotspots are and also where you can make your most influence. As a supply chain manager you also need to think your power-position where I have a buyer leverage to influence my supplier whereas in some areas while I see there's a lot of problems if you're a small buyer and you're reliant on that particular supply with the patent then contractual mechanisms and negotiation power isn't where you should prioritise but perhaps then some industrial level initiatives where you can change on a broad scale where you are the big buyer and a lot of emissions going on then do use that power in terms of how you select suppliers, how you select third party logistic service providers etc.

I: Right. You touched upon emissions, again the big one is around this paris agreement on climate change in 2015. There was this ambitious target to reduce carbon emissions and I recently read a report on the consumer products, goods, industry or CPG and it stated that they would require a 90% reduction in carbon intensity and that would be between 2015 to 2050, so we're already in that phase. So how do you think we're doing on that goal if you look at for example the consumer products, goods industry, taking a specific sector.

R: Well, I think in general emissions-, I'm not sure if we always know that well how companies are doing. If you look at what your standard measurement criteria that is used is typically stating measures at scope 1 and scope 2, your operations and that whereas there are studies that save scope 3, meaning the supply chain emissions are five and half times on average than your own operation emissions. So, we don't necessarily always know how we're doing but I think particularly in the consumer goods industry there has been a lot using more electrical vehicles for these deliveries. I mean obviously we've seen a lot of increased home deliveries with the COVID pandemic and one company that I've read quite a lot about, on their website at least tells a lot about what they're doing. Tesco for example in the UK, they're reporting very ambitious targets and in terms of supply chain and I was reading with interest how they are doing this supply chain wise and I was actually surprised there that they've gotten quite far in terms of their ambitious targets simply by this sort of more asset management approach. In terms of changing lighting fixtures in warehouses and stores and your refrigerating fixtures and this kind of physical assets and in that sense warehousing intensive industry, fast moving (-) goods you have a lot of both in-store and in different kind of transits so I think it's encouraging what I saw from that example that simply by LED lighting and different kind of waste energy emitting, refrigerating solutions in stores and what not that they could do already quite a lot. So I think there are a lot of low hanging fruits still to be picked but obviously then to reach that final goal will require you know-

I: It's interesting, Tesco's asset management approach to this. I think that's quite good and you touched upon it a little bit, you know in terms of the supply chain perspective and so can you tell a little bit more about this scope 1, scope 2 and scope 3 because I think one of things from a supply chain perspective as it's organisational

and specifically among the leadership perspective, how to do about implementing these sustainability initiatives within and across companies? So maybe these scope1, scope2, scope3 things are interesting.

R: Well, scope 1 is sort of from your own operations and obviously it's always easier that your own asset management that you could think of the very practical warehousing solutions we have a lot of things that companies can do, many companies are very good at this but then we also have- you know if you look globally and if you have warehouses in multiple countries then probably not as same level as we are. For example, in Finland the things you can do with the building segregating dispatch areas to avoid losing heat or cold whatever is the temperature you're storing and kind of optimising warehouse temperature depending on how (-) is the physical activity and all this sort of led lighting and using natural lighting and solar panels on roof. So there's a lot of things that can be done with these and obviously if you have your own trucking fleet then vehicle loading solutions and there's different kinds of optimization softwares that now take into account not just the kind of the cost and emissions. Usually these tend to provide win-win solutions that when you're optimising for emissions usually it's the shortest routes and fully loaded trucks, so it's not a economic burden but also cost benefit. So these are the kinds of things that you can do for example.

I: Speaking about the economic burden or let's say synergy, going back to the let's say Paris agreement, there was this goal and it has been estimated that there's roughly around a thousand dollars of revenue that might be required to reduce the overall target for this CO2 emissions. So I guess the fundamental question is who will ultimately pay for this? Would that be the focal company within the supply chain, would that be the suppliers, the third party service providers or customers even? How do you see that?

R: I think some of it depends on the power relations in the supply chain. I mean, you know probably towards customers there will be some pricing pressures but obviously you know many markets in fast moving consumer goods are highly competitive, you know mature market so there isn't that much you can push towards customers. I believe there are still some low hanging fruits that companies can do, you know get to a certain extent by these win-win solutions where you're optimising logistics and warehouses and all these from a kind of environmental and cost perspective that it doesn't necessarily incur costs but you know the closer you get to the goal, it gets more difficult to do that so I think there’re potential investment in technology can help and perhaps the more companies that start to take up these new technological innovations then the costs will eventually come down but I think depending on the power relations in the supply chain, who can squeeze with the profits from the-

I: Yea and that kind of leads to the next question, do you find any interesting innovation that has come out of-, let's say tackling sustainability issues, one that

comes to mind is maybe this whole operating model of circular economy, the food industry for example. Are there any other kinds of innovations that may have come directly or indirectly out of tackling a sustainability problem or issue.

R: Well obviously with the technical innovation, I'm perhaps not the best expert, I think there are small scale like I read from Patagonia that they have put in some investments in this new kind of techniques for yarns and different kind of things that make the product more sustainable and they are encouraging, they're very open and kind of trying to get others. They're not kind of shielding the innovation but rather encouraging others to adapt because they see that the cost of that new technology will go down for them as well as it starts to scale. I think we have some small scale and starting new business models and obviously if you look at clothing , we have this used clothing (Emmu) and (Reikki) and all these kinds of online services that are hugely growing and projected to grow a lot in the future years. There are examples where innovation is not necessarily in the technical side but in the business model, the pricing model, things like Phillips; at least in US I've read that they sell light as a service to cities where they'll fit the city lights bulbs with LED lighting that adjust to natural lighting and basically they're paid by the savings they create. Michelin sells tires as a service for trucking companies or others, obviously there is incentive to make it a long lasting product and you all need so you get it easily back at the end of the product life cycle. So then the circular economy is quick and easy and you have the materials there and obviously technological innovation, we need that a lot in a lot of these innovation factors but I also think particularly for supply chain leaders, obviously who are mostly perhaps from a manager background than the technical engineer, I think this sort of business and pricing model innovation is what they need to be thinking about because to really get the circular economy models going, you need to think how am I getting the products back or the materials and components back and hows the information flow and hows the product flow gonna work, how am I incentivising those downstream from the supply chain to get the materials back to me. We have a great example in Finland and another European countries where bottles and cans, it's 95% or something this sort of recycling rate and that's because we have the incentive, you get the couple of cents back because in countries where they don't have that monetary incentive, the recycling rates are significant, several 10s or percentages lower than they're in Finland and in other countries so while that particular operating model of individual consumer getting back might not work but I think it speaks of the power of the incentive. Thinking of this, how can we change the pricing models so that it isn't paid by each new product and thus incentivising us to sell and use more but how could we create these circular economies solutions, what can we do with our business models and pricing to be attractive.

I: Yea, absolutely, and innovation as you mentioned doesn't have to be digital technologies but can actually be innovations in the business model. You brought up a very good point around incentives, do these folks that are operating these businesses, do you think they purposely design incentives purposely to take into

account for example the sustainability, do you see that as the future in terms of when you're? Let's say the new startups that are happening or even established businesses that have been around for a long time, when you mentioned the Phillips case, it's basically taking a traditional product space manufacturing company and then deploying it as a service where they're gonna have recurring revenues and predictable cash flows, moving forward. So it's actually kind of very smart, so do you think companies, organisations that in the future or even now purposely design these incentives so that they can incentivise let's say customers to afterlife at the end of product lifecycle deal with this?

R: Yea, I think so. I mean whether it's originally kind of started for environmental sustainability or not. We've servitization research this, particularly this kind of increasing revenue streams. I think it might be, in many case originate more from a business perspective but I think it's one key enablers we can also get circular economy solutions going and for that there might be increasingly a legislative push that companies need to make it happen and they need to make it happen with their partners and they need to make it happen cost efficiently and I think for that they need to then start thinking of these new ways you can incentivise. Obviously, there's a lot of logistics involved as well but I do think the incentives along with different types of standardisation are needed so that you can reuse the products and materials from the scratch.

I: Exactly, you talked about a little bit regarding the legislation and maybe the regulation and compliance types of. So, is there a global standard for sustainability measures and metrics because looking through literatures, reading articles around the topic, I am by no means an expert but it seems like there's many different standards. What's your take on that? Do you think they will be moving to one global standard or regional at least?

R: I don't know if we are yet very far in moving there. I do hope because I think for leaders themselves, for different kinds of stakeholders, it's important. As a leader, if you have metrics that you can't compare against anyone, then how do you know if you're doing well or not. For consumers and for investors, with this sustainable supply chain management course that I teach for my masters students at the end project, I have students look at sustainability reports of Finnish companies and I ask them to reflect on what we've taught in the course and what are the companies doing well and one of the typical feedbacks they provide of the sustainability report is that they would have hoped for some more tangible metrics. Like maybe there was a qualitative one or maybe there was two years worth of data but then there's no reference point so they can't really tell if this company is doing well or not. There are a lot of articles of the past year that find 2000-3000 different metrics on sustainable supply chain management. That's a lot. We have different standards, like the GRI but that's more from a corporate, not a supply chain perspective so it's not kind of geared for sustainable supply chain measurement and then in supply chain, most people will know the score metrics and there's an extension and the

green score but then green is not as comprehensive as the others and it doesn't really cover then social sustainability aspects and there's this ESG standards and the world economic forum had this. They tried to provide this set of common indicators, again this sort of measurement similarity that they gave this measuring stakeholder capitalism but I had a look at those just before coming in and again they're more in the internal operations like for example for the emissions what the instruct is for all relative greenhouse gases report in metric tonnes of carbon dioxide scope 1 and scope 2 estimate and report upstream and downstreams of scope 3 were appropriate. So, it's this kind of additional side of if you can but you know if those are six times more than your scope 1 then what's the point and similar issues with the other metrics. For most of them there was no mention of supply chain level or if it was it was this addon of estimate if possible and appropriate.

I: That's very difficult right, if you look from a supply chain perspective because you have to have the transparency and the visibility of the information but do you feel that based on all this kind of reporting that we are moving gradually towards a more standardised approach? You mentioned the world economic forum and some of the initiatives that have been pushed through, I guess that it was big for counting houses that were pushing that through.

R: Yea, I think we are-, because companies are also from talks and teaching that everyone is struggling with this measurement that they're trying to figure out what the best metrics are they want to use the better to lead and if you want to use them to lead you need to really compare and need a supply chain wide metrics. I think it's going there but it's obviously going to take time and I always encourage to have cross industry talks, like talk with leaders from other industries and share these best practices, what works, what doesn't work with the metrics but also I do realise that getting supply chain wide metrics on sustainability is a challenge because very often you don't yet have the full visibility and traceability to your supply chain but if we could at least let's say get tier 1 already in to the scope and then work towards tier 2 and tier 3.

I: Tier n [laughs]

R: Yea Tier n in many cases.

I: You touched upon some of the topic of best practices, could you enlighten us, are there any best practices companies examples that are really proficient at sustainable supply chain management that come to mind.

R: Well, I think Patagonia is often used as a student case, I think they're very much trying in strategy and in terms of educating consumers, they're very much emphasising on innovation and then trying to lead the industry to adopt those innovations for those sustainability benefit but also for their own cost benefit so that would be an example. In Finland, I just heard a presentation by S-Group and it

seems they're doing a lot of own research to really get to the bottom to understand the issues and start working from there in terms of sustainability in different, in a quite a large variety of product categories and yea I think there are many good ones. Obviously in Finland Neste has been awarded many times on different awards but yea I thought the Tesco approach was-, they had lot of good designs, just by with the access management and also the practical things like, well in the UK you can sell wine at supermarket and they had their own brands wines they imported for example from South America. In the UK glass bottle recycling rate is nowhere near where it is in Finland, so that's a huge emission and what they did was rather than import it in glass bottles to the UK, they imported in bulk and then bottle it in the UK. So thinner glass bottles, less use of materials, less wastage and kind of brokerage during transit and all these customisation points move in the supply chain to be able to save in packaging materials and also all sorts of costs as well.

I: That's very interesting. Maybe as a final question, what is your advice or guidance to companies that are kind of exploring sustainability and maybe interested in pursuing the sustainability or tackling the sustainability challenges? What is your advice? What are some practical things in terms of methods, tools, resources that they can use to actually embed this change in their own organisations?

R: Well, I think some sort of measurements, let's say with emissions and there are lot of publicly available guides like the (pass)-, I forgot the number but anyways this sort of metrics that you can use and some kind of secondary data sources that you can try to evaluate the emissions with some good pilots. I think overall different things that I tend to emphasise, one is visibility; you need to get a bit more visibility into your supply chain. We talked perhaps a bit more here on the environmental issues but particularly with social sustainability issues, where you know that your supply chain extends to developing countries then getting more visibility and traceability into actually where the products are coming from and starting to work on the issues.

I: Visibility and traceability, that's something very interesting because yea, I know there's some blockchain solutions around chain of custody that go into the supply sources, I know for example in the coffee industry and even the chocolate industry confectionery that they look at those raw materials sources, that they're not utilising any child labour or any conflict minerals or what have your raw materials so I think that's also an example.

R: Yea, I think blockchain solves the traceability so that you can know for sure where it's coming from, I still think it leaves some of the visibility issues. While you know where it's coming from, it doesn't provide that you know, it's still reliant on audits or something which are snapshots. So I think they're, in terms of visibility, there isn't the solution yet in terms of full visibility but I think blockchain is the first one because in many global supply chain, I've seen a lot of statistics of the past few years, not just in relation to sustainability like with the COVID pandemic and all those

risks that only tend to 30% percent of supply chain managers have visibility (-) Tier 1 and blockchain can certainly bring that kind of traceability that you at least know where it's coming from then you still need additional tools to verify that in those places that you now know it's coming from that is it only 365 days a year, sustainable practices but certainly blockchain can help with that. You first need to know where it's coming from.

I: Exactly. Thank you so much Katri for enlightening us on sustainable supply chain management and I hope the listeners got some good insights and advice around how to embed sustainability within their own operations. So thanks again for your time.

R: Thank you for having me.

S: That's it for this week's operation leadership podcast. We hope you enjoyed it and until next time.

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