Mark: Welcome back to the Your Edge Podcast. I’m Mark Butler, a Global Partner Manager at Zebra, and today I’m joined by Bhishma Dalal, a Consultant with Koerber Supply Chain Software.

We thought it would be a good idea to talk about voice technology. Though the idea of voice guidance isn’t necessarily new, we’re finding new ways every day to inject it into workflows that would commonly require someone to read task lists or instructions to get the job done. Plus, we know that optimizing labor is one of a supply chain leaders’ top priorities right now, especially in warehouses, and that both associates and business leaders are worried about how much of a challenge it remains to manage workloads and high stress levels as they strive to meet fulfillment and revenue targets.

With over 20 years of supply chain and voice experience you’re the perfect person to be talking with So, why don’t we start by talking about what’s fueling a rush to adopt voice technology right now in warehousing environments, whether run by a manufacturer, 3PL, distributor, shipper or retailer.

I feel like picking has been the most touted use case for voice in the last several years. Why is that?

Bhishma: Picking is the most people hours-oriented process in the warehouses. Most DCs spend quite a large chunk of their labor dollars in the picking area. Hence any improvement in the picking area allows the warehouse to do more with less. Moreover, the picking process is the best suited for converting to a voice workflow due to the time spent by the user on RF devices.

Mark: Are there other areas where you’re seeing supply chain organizations find value in voice? I mean, it’s never good when a worker has to stop and look down to figure out what to do next or how to do it, right? So, is this something that will become common in almost every workflow?

Bhishma: Mark, we are seeing a lot of clients begin with voice picking as phase 1 of the voice project. After seeing the success and getting the users comfortable with voice, we see many clients using voice for put away, replenishment and cycle count workflows. Voice provides the same hands free and eyes up benefit for these workflows and helps the user be distraction free to focus on the job at hand. In other words, through voice-directed working, productivity, accuracy and safety will increase while training time and damages will decrease.

Mark: Something else probably worth noting is that voice is an inherent communication method while reading and writing are learned behaviors and, to a certain extent, a privilege. So, I would imagine that voice is helping to make jobs more accessible to people as they simply have to follow the instructions that someone in their ear is telling them to do.

Bhishma: One of the reasons that voice has been so successful in helping users be more productive and accurate is that we typically find it a lot easier when we have to follow instructions vs. deciding what the next step is. I almost like to compare this with how apple or google car play makes a driver’s life easier vs 15 years ago, when we had to print out directions and then follow them while driving. Voice takes away the multi-tasking from the users in warehouses, factories, sorting centers and similar environment
while helping them be safer, more productive and accurate. What it does is translates instructions into plain language delivered through a headset.

**Mark:** The example about maps is perfect. So, we've talked about why use of voice technology should be widespread, but I think it's important to talk about how we get companies there. If a warehouse operator sees the value in voice but is perhaps just starting their digitalization journey, what are some things to think about when choosing mobile devices or developing workflow software?

**Bhishma:** Mark, that is a great question. At the end of the day success for any technology is dependent on the end users being comfortable with the technology and adapting it. We are all very familiar with an Android device as well as using blue tooth headsets. Hence, the Koerber voice technology which can use Android devices, as far as it meets the minimum requirements, and a Zebra Bluetooth device would be a lot easier for an operator to adapt. It will be natural for them to use the technology and hence would result in better adoption.

**Mark:** How involved should end-users be in solution design? Obviously, we want workers to test the technology and tell us if it's truly helping like we want it too. But should business leaders really wait until that user acceptance testing stage to bring end-users into the mix?

**Bhishma:** Mark, what I've seen is that when we at Koerber and Zebra get involved in the consultative process of whether voice technology would be the best fit for a particular client or DC, we like to do an operational walk through of their current process. During this walk through we shadow a user and document their current RF process. We also involve the end users while demoing the voice solution. I see is, I feel early involvement of end users results in better change management and also helps in delivering the best value of the voice solution for the end user.

**Mark:** I love that, Bhishma. Are there certain things that really help or could potentially degrade the user experience when it comes to voice? For example, we know warehouses, retail stores, sorting centers, and the like are noisy places. How are things like volume managed?

**Bhishma:** So, the current hardware that we utilize for our voice solution works really well in the noisy warehouse environment. The noise cancellation and filtering provided by the HS3100 headset help reduce and filter surrounding noise, while ensuring the best possible voice recognition.

**Mark:** Thanks for the plug on the Zebra HS3100 headset. What about language? We know that in almost every region of the world you’re going to find a melting pot workforce, and you need to be able to cater to both native and non-native speakers. How is that handled with today’s voice technology?

**Bhishma:** The Koerber voice solution supports 12 languages like English, Spanish, German and French, and we can add up to 40 languages if needed by the clients. The feedback we have received from our clients with bilingual associates is that voice helps them attract and retain associates for whom English is not their first language. The associates find it a lot easier to use the voice solution in a language they are comfortable with. And because of that, their productivity and accuracy skyrockets, and it is a win-win for all.
Mark: Bhishma, you’ve mentioned several times the productivity improvements that voice technology yields. But do you have solid numbers from the projects you’ve worked on that speak to the impact of voice guidance in different workflows?

Bhishma: In my experience with the projects that I have worked on, I have seen clients gain anywhere from 10 to 35% productivity improvement as well as an up to 25% improvement in accuracy. Again, this is driven by their current paper or RF process and the type of product they are picking. That’s why, you know, we typically do not quote any productivity improvement estimates to clients before we have completed the detailed on-site discovery and have studied their current process. And in most cases improvements can be seen almost immediately after the first implementation of the technology.

Mark: Given the tremendous impact that voice guidance can have, why do you think it’s still somewhat nascent considering how long mobile computers, tablets and wearables have been used? You would think this would already be standard practice.

Bhishma: Mark, I agree that mobile computers and wearables have been used for a long time. In fact, voice technology has also been out there for over two decades. I feel the biggest competition voice projects have is status quo or resistance to change. I see clients still picking with paper and are not willing to use technology.

Mark: Ok, well then here’s the big question, then. What do you think it’s going to take to convince these laggards that there is benefit to using this type of technology – and possibly risk not to use it?

Bhishma: I feel the best way to convince the laggards is to demonstrate the value of voice along with a ROI analysis. I feel prospects have an “Aha!” moment when they see the benefits that voice can add to their team, but more importantly when they see the loss to them in terms of productivity, accuracy and employee satisfaction when they prefer status quo over voice.

Mark: Bhishma, does voice technology add much stress onto wireless networks?

Bhishma In most cases we are able to use the existing wireless network and infrastructure. So, if a client has RF working well in their distribution center, then voice technology will work great. The data transfer with voice is typically very small and does not add stress to the infrastructure.

Mark: Good to know. You know, I always like to ask about the right way to approach technology solution design. But given the human factor with voice, is there a wrong way to approach it? Something that you commonly see companies do when trying to implement voice tools that are bound to backfire?

I feel from my experience it is always important to complete a detailed discovery and understand the current process and people aspects, before determining if voice will work well for that client. In some cases when the current process is extremely scan heavy, I have seen voice backfire, especially if the client decides to voice everything, instead of using a Bluetooth ring scanner. In many cases where the batch, lot numbe, manufacturing date, etc. need to be captured via a scan, it is easier to add a Bluetooth ring scanner to the voice solution design.

Mark: Well, Bhishma we’ve come to the end of our discussion, and you shared a ton of insight on voice operations, and it’s been absolutely awesome having you here with me today. You know, this has been the second podcast in the series. The first one on warehousing trends dropped back in mid-
August, and I’m thinking we’ll focus on warehouse management systems with Korber later this fall. Thank you so much, Bhishma.

Bhishma: Mark, thanks a lot for having me on the podcast and giving me an opportunity to share my views on voice solutions. Thank you.