Digi-Key Electronics Fuels Growth
Through Collaboration and Self-Service Analytics

By Ron Powell
Originally published December 17, 2017

This article is based on a podcast **Ron Powell conducted with Patrick Brickson, Director of Data Systems at Digi-Key Electronics. They discuss the benefits of self-service analytics. Ron Powell is an independent analyst and industry expert for the BeyeNetwork and executive producer for The World Transformed Fast Forward Series. His focus is on business intelligence, analytics, big data and data warehousing.**

Patrick, I understand that Digi-Key Electronics is the fourth largest component distributor in North America. Could you share with us some history about the company?

Patrick Brickson: Yes. Digi-Key was founded in 1972. We're located in northwest Minnesota, a town called Thief River Falls. We sell electronic components. We purchase the parts from the manufacturers and sell them directly to people that essentially make products with them. My family always asks, "Do you sell computers?" And, my answer always is, "No, but we sell everything you can use to make them."

Digi-Key was founded by Dr. Ronald Stordahl, who still owns the company. The company has grown incredibly since inception. I've been at Digi-Key since 1992. There were less than 300 employees when I first started, and now we have more than 4,000 globally.

And your revenue growth over the past year?

Patrick Brickson: About $2.3 billion revenue in 2017, and we expect to reach $3.2 billion this year. It's about a 40% increase in revenue this year, which is explosive.

What is the total number of SKUs you currently have?

Patrick Brickson: We have 1.5 million SKUs in stock, and we list over 5 million on our website that are essentially non-stock or special order.

As Digi-Key continues to become a data-driven organization, how is data being used throughout the company and what kinds of business decisions are being made with the data?

Patrick Brickson: The use of data is really pervasive across the organization. It's being used to drive marketing and sales decisions. We also use it to determine proper staffing numbers in our product distribution center. In the last few years we've gotten involved in Lean Six Sigma process improvement – the black belt and the green belt projects, and we do quite a bit of data analysis for those projects.

So what have been some of the challenges to becoming a data-driven organization?

Patrick Brickson: Visibility into the data has been our biggest issue. We have a number of data sources, and as our company has grown, we found that a lot of the information about our data – the metadata – was basically tribal knowledge. It was in people's heads or in SharePoint or in documents here and there. So what we found is people could not always find the right answers to their questions. I think that's probably very common with a lot of different organizations.

Definitely. How does self-service analytics fit into your data-driven business strategy?

Patrick Brickson: What we've found is that business users are far more interested in accessing the data themselves to get answers more quickly. In the past, they would come to IT and have a report developed. And it would oftentimes take a long time. So people would wait weeks, months, or however long it would take to develop that report to get the answer that they needed. And business is just moving far too quickly right now to wait that long. There is a hunger for knowledge and a desire to get answers. Self-service analytics is helping us empower our business users to find the data themselves. They can get a sense of what's out there so they can not only answer their questions, but also develop new questions to answer based on that data.

How do they find the data?

Patrick Brickson: In the past they'd have to know who to contact for the data or they'd have to try to query the internal data dictionary within the relational database. Recently we've introduced a data catalog that allows users to keep track of all data sources and elements within those data sources. They can also add documentation about the data. It has allowed our users to self-serve and find the answers without having to determine who to ask the right question of.

So looking at a data catalog, did you go through a process to figure out what was the best catalog?

Patrick Brickson: Yes, we looked at four different products, and we ran a proof of concept with two of the products. We created a pros and cons list and eventually chose Alation. So we're using Alation's data catalog tool, and we've been very happy with it.

Alation offers machine learning so it can make interpretations of what the data is based on naming, and that improves as you add more information. So essentially it will add real English words to your table and column names in your database to make it more easily searchable. In addition, Alation is very collaborative. By that I mean it allows people to more easily add descriptions to each of the data elements or create articles that tie into those data elements as well. Alation allows tagging of data elements so you can follow the stream, so to speak. It also allows users to upvote and downvote data elements so you can get a sense of, for example, if a table or a column has been deprecated. If it has, you can make note of that – downvote it – and add a note saying, "This is deprecated – please don't use it anymore." So basically it puts the power in the hands of the people that are using it instead of IT.

So with the business now being more involved with data and having the ability to find the data, where have you seen the impact?

Patrick Brickson: We are able to get our products to market more quickly. Our compliance department has to assign an export control class number to each part as it comes in to be able to export the product outside the country. In the past, the team had trouble trying to determine exactly how much work it had to do because it was relying on a legacy operational report. So now the team is empowered to more easily see the breadth of work that

they need to do and assign the export control class numbers more quickly, which means that we can get the products to market more quickly.

The analysts I spoke with estimated we could do about 100 parts a day in the past and that now has improved to about 1,000 a day. Digi-Key has added and continues to add quite a few products to our catalog and/or website, and now we have sped up the process of getting those parts to market.

If there was one thing that was really key in becoming data driven, what would you say that is?

Patrick Brickson: Probably collaboration between our business users and our IT users – allowing the teams to talk more easily about the data. We established a community of our self-service analytics users to share successes and challenges and talk about what they're doing. It's also collaboration among the different users.

So did you create a center of excellence?

Patrick Brickson: We created a self-service analytics center of excellence or SSACOE, as we call it, where on a monthly basis we talk about different challenges and successes. Also, we have done training with our users on the data sources and tools, especially the data catalog. I think that adding the data catalog really opened the door for more users to collaborate and allowed that our programs to work better than they did before.

Patrick, thank you and continued good luck on your data-driven journey.

<u>About the Author</u>

Ron Powell, an independent analyst and consultant, has an extensive technology background in business intelligence, analytics and data warehousing. In 2005, Ron founded the BeyeNETWORK, which was acquired by Tech Target in 2010. Prior to the founding of the BeyeNETWORK, Ron was cofounder, publisher and editorial director of DM Review (now Information Management). Ron also has a wealth of consulting expertise in business intelligence, business management and marketing. He may be contacted by email at rpowell@powellinteractivemedia.com.