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Interview with Veronika Belokhvostova (Paypal)

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"The kind of people we hire want to know that their work is not gathering dust on some shelf, but has a real impact on the company," says Veronika Belokhvostova, head of Global Business Analytics at PayPal. And indeed, business analysts there are collaborating with business leaders to answer the "what should we do next?" question.

VERONIKA BELOKHVOSTOVA (PAYPAL), INTERVIEWED BY RENEE BOUCHER FERGUSON

A founding member of a new category of financial services providers, PayPal is looking to transform itself from a predominantly online (and mobile) payment service — it has more than 100 million active users worldwide — to a payment service that can be used in the physical world as well. PayPal announced a partnership in August with Discover Financial Services, for example, that will expand its payment services from a few thousand brick-and-mortar locations to potentially seven million by the middle of next year.

As PayPal moves to increase its market share, one thing is certain: Data analytics will play a pivotal role. Why? Because the executive team is paying attention to the numbers. And they're using data analytics to help guide business strategy.

"PayPal leadership wants to know the return on investments PayPal makes," says Veronika Belokhvostova, head of Global Business Analytics at PayPal. "Therefore, each proposal for a new initiative or product feature has to come with a plan for measuring its impact on the PayPal customers and PayPal financials. Each portfolio manager is responsible for not only tracking the performance of his or her portfolio, but also for identifying key drivers of the growth and for tracking leading indicators, such as customer acquisition, of financial results. Business analysts are the ones who design and execute these analyses."

Achieving actionable — and measurable — results through data analytics, however, often requires breaking down the communication gap that can exist between data analysts and business. That means empowering trusted analysts to develop well-thought-out recommendations and implementation plans that answer the all-important question in business: What should we do next?

In a conversation with Renee Boucher Ferguson, a contributing editor at *MIT Sloan Management Review*, Belokhvostova discussed how PayPal is bridging that communication gap.

Can you give us a sense of how your team, Global Business Analytics, fits into life at PayPal?

PayPal has several analytical teams embedded in different functions and geographies. My team was established three years ago to provide a customer-centric view of our business, agnostic of the PayPal organizational structure. We take diverse data such as data on product use, risk treatment, marketing communication and customer support interactions, and translate this data into a holistic view of who are our customers, how their relationship with PayPal evolves over time and how PayPal products, services, policies and marketing affect customer behavior and satisfaction levels. Stepping into our customers' shoes helps PayPal improve its services and acquire, engage and retain more customers.

Global Business Analytics also helped build a key piece of the analytical infrastructure — a common analytical language. Now that the same definitions are used across different analytical teams, decision-makers can more easily combine insights from multiple analytical teams and make investments based on these insights.

What do you see as some of the biggest management opportunities connected with analytics?

The right approach to managing up and managing down is key to building successful analytics organizations.

On managing down, it is about helping the team see the connection between the analysis they do and the actions the company takes. I find that the kind of people we hire want to know that their work is not gathering dust on some shelf, but has a real impact on the company. That is what keeps them engaged, that is why they love what they do.

On managing up, analytical leaders have to establish themselves as thought partners, not data providers to the executives. This requires investing time into thoroughly understanding your company's business, selecting relevant analytical insights

and, as much as possible, translating these insights into actionable recommendations. When I meet with regional GMs, they are not looking for a report on numbers. They're looking for a well-thought-out set of recommendations on what their businesses should do.

Would you say that this is a new approach in analytics, to provide the insight for what business should do next, rather than just analysis?

It is not entirely new. But with online businesses, analysts can collect more data and companies can "adjust the course" more quickly based on the insights. I have spoken to analysts from Silicon Valley companies like LinkedIn, Groupon, and Google. Analysts in these companies work side by side with product managers, marketing, sales and other organizations. Based on their analyses, these companies adjust marketing targeting, sales prioritization and the design of the product. So it is not just a PayPal phenomenon.

Many organizations also evaluate analysts based on their ability to identify "what business should do next" and convince the business to do it. Zynga, for example, evaluates analysts in this way. About a year ago, I attended a presentation by Ken Rudin, head of Zynga's analytics, where he talked about Zynga's approach to managing analysts. Ken mentioned that he actually adjusted their hiring practices to bring in more MBAs rather than PhDs. He felt sometimes technical PhDs very precisely measured precisely the wrong thing. MBAs helped focus the analysis on most impactful and actionable insights and convince business stakeholders to act on these insights. Zynga's analysts cannot give excuses such as, "I told them, but they did not listen." They have to have the credibility and the tenacity to not only tell businesses what they should do next, but also convince businesses to do it.

My team also has a good mix of technical and business skills. Most have MBAs, some have management consulting experience or investment banking experience in addition to data analysis skills. This range of experiences helps us "connect the dots" and act as

trusted advisors and thought partners to our internal customers.

As analysts become more business savvy, I also see business stakeholders become more analytically savvy. Many corporate leaders come from consulting and investment banking or took statistics while obtaining advanced science degrees. They know what is a "Mekko chart" [see http://bit.ly/Urlksz] or what it means to "test a hypothesis." Many business functions now look for "analytical" candidates at all levels because they want people who can monitor the performance of their products and customer portfolios, take data-driven actions and measure their impact.

What communication gap exists between the different departments of an organization? And what can data analysts and others do to overcome that gap?

At PayPal, there are two main gaps. Both of them are starting to get addressed: One, PayPal has several analytical organizations embedded in different functions and regions. In the past, these organizations often used very different definitions. Terms such as "SMB" and "customer acquisition" were defined differently by different analytical teams, which led to confusion and inconsistent messages on key trends.

Three years ago, PayPal added a central analytics team — Global Business Analytics. Global Business Analytics became the designer and the champion for a standardized analytics language. Though some inconsistencies still exist, we have been able to align most definitions and close that communication gap. Now when an analysis is presented, we can focus the discussion on designing solutions for identified problems, not on arguing about definitions.

The second issue is that sometimes in an effort to simplify the task, business stakeholders ask for a data pull. That is, they ask for a set of numbers instead of sharing the business question they are trying to answer. Without the context, the data can be misinterpreted. Savvy analysts insist on discussing the business question — for instance, should we

continue to invest in this product — and then translate it into an analytical question — for instance, how much does this product benefit PayPal through its impact on xyz. Just the other day, I ran into a similar situation. One of the business stakeholders reached out to a member of my team asking for the customer churn rate. Once we learned of how the business stakeholder was going to use it, we realized that it was the wrong metric.

What's different today in terms of enablers and tools than, say, a couple of years ago?

Companies now have large amounts of data. So many tools are emerging to help companies parse through that data, sample it, visualize it and analyze correlations between drivers and outcomes. We use Qlickview, Tableau, Microstrategy and of course Excel to make data accessible and easier to consume through pivot tables, graphs, maps, and other visualization. We also use SiteCatalyst to study customer behavior on the site. We use SAS and SQL to analyze the impact of various treatments and behaviors. These tools are not new, but they are continuously improving.

On the new tools, I am seeing more solutions for mapping networks and semi-automating analysis. Most of the solutions that automate analysis seem to just automate the visualization. Analysts still have to go through hundreds of graphs to identify what is relevant.

Another new set of solutions processes social media data such as Twitter and Facebook. These solutions can help a company understand how the public feels about them, how the sentiment changes over time and how PR and marketing campaigns influence the social sentiment. They can also help connect with key champions of the brand or disgruntled customers. PayPal is in the process of evaluating a few of these solutions.

Is there anything that's surprising to you about the use of data and analytics in PayPal?

We've had some surprising findings. We keep finding

basic, low-hanging fruit — huge opportunities for the organization to increase its revenues. And some of the surprise comes from the inertia that sometimes exists within the organization when it comes to acting on these insights. But I do also see that at this time we have that critical mass, we have that executive scrutiny that is making that inertia unacceptable.

You've mentioned revenue opportunities. Would you say those are opportunities that wouldn't have been recognized without analytics?

Absolutely. Without analytics you are flying blind. Without analytics, you cannot experiment. How would you know what initiative was successful and therefore should be replicated or expanded? When one of our regions redesigned their website, other regions were wondering whether they should invest into doing a similar redesign. The analysis showed that the redesign did in fact improve customer acquisition and should be replicated in other regions.

On the other hand, another region experimented with offering introductory pricing for six months. Analytics showed that that experiment failed. Savvy customers took advantage of the promotion for the first six months, but enough of them churned after the first six months to make the pilot unprofitable.

Analytics also helps diagnose revenue leakages in the existing system. For example, at PayPal analytics helped identify sub-segments where we were charging lower rates than what we agreed to. Some of the merchants were getting a promotional rate beyond the promotional period or were getting a volume discount even though their actual volumes were below the discount threshold. That's the analysis that led to the creation of a pricing group that was tasked with identifying and plugging revenue leakages.

Analysis can also help the company fundamentally change its focus and approach. A couple of years ago we started taking a closer look at the impact of risk management policies. These policies were designed to protect our customers, but in some cases led to a terrible experience. When we took a segmented approach to analyzing the impact of some of our Risk policies, we realized that some of our most valuable customers were disproportionately affected. That analysis was the catalyst for a risk policy redesign effort. Improving customer experience, including risk experience, is now at the center of the strategy laid out by our new president, David Marcus.

Does data analytics provide PayPal new ways to compete more effectively?

Data allows PayPal to improve our products and services, provide more targeted messages and align our investments based on the expected returns.

But analytics can't do all the work. At PayPal, it is the close partnership between analytics and regional leaders, strategy, finance, risk and other functions that helps us better understand our customers, see what's "around the corner" and compete more effectively.

For example, we work with market research and strategy teams to answer questions our analytics team can't address alone and those teams can't answer without some analytics. When Analytics finds out *what* customers are doing, such as starting to use the product more frequently, market research helps complete the picture by answering the question of *why* they are doing it, such as feeling better about the brand, through focus groups and surveys. When you look beyond incremental optimizations to your existing product or existing customers, you need to look at strategy and market trends to understand how you can substantially change your business and not just fix product bugs.

The question becomes how can you significantly improve the value proposition with new offerings and products. Analytics alone can't answer those questions, but any good answer will incorporate analytics. That's an important new role for us.

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