Jessica LOVE: Businesses have to make all kinds of decisions about if, and when, to share information. Sometimes you have to decide whether to be transparent with customers—like, should you notify them the instant their package has shipped? Other times, you need to make decisions about transparency in your supply chain—like, if your warehouse is running low on inventory, do your retailers need to know?

There’s a classic rule in economics that might help you answer these questions. The rule says that more transparency, or more communication, should always lead to better outcomes. The idea being, when everyone has the same information, they can make the best, most efficient choice possible.

Robert BRAY: I think this is a fairly universal rule.

LOVE: That’s Robert Bray. He’s an associate professor at Kellogg who studies operations. And he says, while most companies have their secrets, it’s usually understood that transparency and communication will lead to less waste and more stability.

BRAY: You have to realize that people in your supply chain are your teammates. And just like in basketball, chances are more communication with your teammates is going to make things overall better.

LOVE: The economic theory behind this trusty rule is solid. So much so that researchers, like businesspeople, often take it for granted.

BRAY: It’s kind of so obvious that not many people really bother to empirically test it.

LOVE: But Bray and coauthors did just that. They conducted three different studies with three different takeaways, measuring the consequences of sharing information with suppliers, distributors, and customers. And what they found is, there’s actually much more to transparency than the classic rule lets on.

[musical interlude]

LOVE: Welcome to The Insightful Leader, from Northwestern University’s Kellogg School of Management. Today on the podcast, we dig into research from Bray about the value and the surprising costs of transparency and communication. Now, transparency is obviously a big topic with all kinds of applications in business. But today, we’re going to focus specifically on what it means for your organization’s operations. What, exactly, do companies get out of being completely open? When do you need to communicate clearly, and when is it better to keep your cards close to the vest? Bray shares three findings from his research that add some nuance the trusty rule of transparency.

So to begin with, Bray wanted to test the very premise of the classic rule: does better communication really benefit a supply chain? And if so, how much? To find out, he and some colleagues looked at the automotive industry—specifically, at vehicle components, like
steering wheels and brake pads. Car companies typically build these parts in one factory, then ship them to a different plant where the full car is assembled. So if more communication leads to better outcomes, Bray figured, then when the factory was really far from the assembly plant, the communication between them would suffer.

BRAY: Because it's just harder to communicate over longer distances. That's kind of the theory. And we would expect that to sort of manifest itself in kind of more problems.

LOVE: Specifically, in more vehicle defects. And that's what happened. Looking at the data, they found that if you increase the distance between the component factory and the assembly plant by an order of magnitude—say, going from one mile to ten miles apart—you can expect to get 3.9 percent more defects in that component.

BRAY: 3.9 percent defects, OK, it might not be that big of a deal. But, you know, these defects can kill people. And with these very mature products, like cars, they're—cars are pretty well-made nowadays. So in order to get even 3.9%, that's about as much as we were even expecting.

LOVE: So the first takeaway for leaders: We all have this idea that since we live in a digital world, collaborating via videochat or email is just as good as communicating face-to-face. But Bray’s study shows, that's not the case! Distance can keep you from communicating well, and that really can lead to worse outcomes. Which means, just because you can put a factory on another continent, or conference call with colleagues in a different time zone, that doesn’t mean you should. There’s something to be said for good old face-to-face communication.

BRAY: People are communicating problems, you know and they're—and they're—and they're actually putting their heads together and coming up with more solutions, better solutions that don't fail. So, most of the time the literature thinks about it in terms of reducing costs and reducing unnecessary waste. But what we're also saying is, it's actually making for better products too.

[musical interlude]

LOVE: So better communication leads to a better product. The trusty rule holds up so far! But is there ever a cost to transparency in a supply chain? In a second study, Bray looked at what are called “inventory runs.” These inventory runs happen when those at the end of a supply chain—stores, typically—know that their supplier is running low on a certain product. And so, even if they don’t need that product at the moment, the stores might place a big order, hoping to stock up before the supplier runs out completely.

BRAY: And this is just like a bank run. So on a bank run, if depositors all of a sudden think, "Wait, I don't think this bank is solvent," they all rush and try to grab the money that they can. We think the same thing could happen in a supply chain. If the downstream stores try to cash out the inventory that they can while the getting's good.

LOVE: Which, to Bray, seemed like a real downside to transparency. After all, these runs can only happen because the stores have access to information about suppliers’ inventories. But the thing is, inventory runs are notoriously hard to document in the real world. So was this
supposed downside to transparency real, or just theoretical? To find out, Bray and his co-authors got access to a dataset from a large grocery store chain in China. The data documented a distribution center that fed 73 grocery stores.

BRAY: OK, these stores are all owned by the same company, so they should kind of be teammates. But the managers are ranked against one another, and they're sort of ranked based on the performance of their own store. So now all of a sudden the store managers have an incentive to kind of look out for their own store more so than for the common interest, say.

LOVE: So when the distributor's inventory was running low, what did those store managers do? You guessed it! Lots of them placed an order at the same time, causing an inventory run.

BRAY: Propensity to order goes up by a third when it looks like the distribution center's going to stock out. You know, that's like roughly 15 extra stores are placing orders or something like that than you would have anticipated. And this is coming at the time when you're already about to stock out, that's when you're getting hit. So it's like they're kicking you when you're already down.

LOVE: Transparency had made things harder for the distribution center. So the second takeaway: too much visibility can, indeed, come back to bite you in some cases. When the store managers saw the distribution center's inventory, they made decisions that benefitted themselves, but not the company overall. So, as a leader, if you're going to make information available, you should think carefully about whether there's anyone down the line who could use that information to game the system for their own benefit.

[musical interlude]

LOVE: So when it comes to links in a supply chain, transparency wasn't always a force for good. But Bray also wanted to know: what effect does transparency have on customers? To answer this question, he got access to a dataset on packages that were shipped by Alibaba, China's massive online commerce company.

BRAY: Around five million shipments, okay? And then 100,000 facilities listed. So it's a huge dataset, and it's just showing where the packages were when.

LOVE: For instance, showing the time the package was shipped, the time it left the distribution center, the time it was loaded onto a delivery truck, and so on. But what made this dataset interesting was, not only did Alibaba know where the packages were at every point—they also shared this information with customers, sending them notifications every time a new action occurred. Companies often assume that this kind of transparency is a good idea. After all, there's some research suggesting that when customers see what's happening at every step along a supply chain, they're going to be happier with the outcome.

BRAY: And in these experiments, it was all implicitly assumed that, "Well, of course the customer's going to like what they see, of course you're doing such a good job that they're going to be happy when you show them all the effort you put in!" But then I was just thinking, it's like, "Well, you know, that could cut both ways. Like, you're going to air dirty laundry too, you can't avoid it!"
LOVE: So when do customers want to know what's happening, and when do they not? The Alibaba data provided the perfect chance to answer that question. Because almost every package delivery had a score given by the customer, essentially saying, on a scale of one to five, how happy were they with the delivery?

BRAY: So I was like, OK, let's break the data into these scores and let's just look at when the actions happened. And what I was sort of flabbergasted to see was, there was a perfect ordering one, two, three, four and five based on when the actions occurred.

LOVE: That is, there was a shockingly clear connection between the timing of the notifications and the scores that customers gave their deliveries. So, if someone placed an order on Monday and there were a lot of notifications on Monday and Tuesday, but then nothing until the order was delivered finally on Friday, the customer was more likely to give that shipment a low score. And the OPPOSITE was true, too. If they placed the order on a Monday, heard nothing for a few days, and then got a flurry of notifications right before it was delivered, they'd score it more highly. So in a nutshell...

BRAY: When activities cluster towards the end of the shipping horizon, the corresponding scores that the customers give tend to be higher.

LOVE: Incredibly, this is even if the order takes just as long to ship! Suppose a shipment took 100 hours altogether. If you shift the average notification from hour 20 to hour 80, Bray says that would make people as happy as if you cut a full day off the shipping time.

BRAY: So instead of having to be faster, you could just delay doing stuff!

LOVE: Bray says, this adds another important caveat to the rule of transparency. And it's his third and final takeaway for leaders: customers aren't always going to appreciate seeing behind the scenes.

BRAY: It's worth reflecting on, that if you do have transparency, you're going to also show customers times that, "Guess what? I just let that package sit for four days doing nothing."

[musical interlude]

LOVE: So given all of this, what should leaders make of that classic rule of transparency? Overall, Bray urges some caution. Yes, you might want to think twice about showing your customers updates that they'll find frustrating, or about letting out information that others can use to game the system. But...

BRAY: But on the flip side, showing the operation will of course make people trust you a little bit more and will also motivate you not to screw up. My intuition is still that being transparent on the margin is probably going to be beneficial.

LOVE: This episode of The Insightful Leader was written by Morgan Levey and edited by Jake Smith. It was produced by Kevin Bailey, Jessica Love, Fred Schmalz, Jake Smith, Michael Spikes, and Emily Stone, and mixed by Michael Spikes. Special thanks to Rob Bray.
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We’ll be back in a couple weeks with another episode of The Insightful Leader.