



SPECIAL REPORT

Innovative Business Approaches to Social Impact



INTRODUCTION

Innovative Business Approaches to Social Impact

We're hearing more discussions promoting the idea that the primary purpose of business may extend beyond maximizing shareholder value. Of course, companies need to pursue profits to stay in business and grow, but the idea that companies can – and even should – consider the effects their actions have on society and the environment continues to gain traction for a variety of reasons.

Some are frustrated by government inaction and are concerned that philanthropy cannot solve global problems alone. Others say that companies can no longer ignore the risks caused by social and environmental challenges – for instance, those resulting from climate change, corruption, income inequality and social unrest. And still others believe that pursuing a larger purpose is the path to innovation, to employee engagement, to customer loyalty and to a strong, positive reputation.

Increasingly, this idea is being embraced by business leaders – not just from companies long known for being socially minded such as Ben & Jerry's and Patagonia, but also from other firms such as Nike, Starbucks, Danone, and JP Morgan Chase.

This special report of Knowledge@Wharton highlights how business leaders and academics are leveraging the tools of business to drive innovation and impact. The selected articles highlight a range of approaches — from fintech innovations that support access to financial products and services to big data analytics that support safer, more vibrant communities. The articles also explore how investors consider social impact in their investments and how finance could be used to achieve the United Nations Sustainable Development Goals by 2030.

We're proud to be a leading business school with a strong commitment to research that creates leaders who can change the world. Our goal is to continue to highlight the changing role of business and to explore the innovation and impact that results from it. To learn more, <u>sign up</u> for Knowledge@Wharton and tune-in to the Dollars and Change show on Wharton Business Radio, which airs on SiriusXM channel 132.

Katherine Klein Vice Dean, Wharton Social Impact Initiative Mukul Pandya Editor-in-chief and executive director, Knowledge@Wharton



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Impact Investing: When Social Benefits Are in the Contract

For impact investors, there are two bottom lines, says Wharton finance professor David Musto: making money, and making the world a better place. Katherine Klein, management professor and vice dean for the Wharton Social Impact Initiative, interviewed Musto about his latest research in the field. His forthcoming paper, "Contracts with Benefits: The Implementation of Impact Investing," co-authored by Wharton adjunct finance professor Christopher Geczy, Jessica Jeffers of the University of Chicago and Anne Tucker of Georgia State University, examines how social impact can be written into contracts when investors are looking to balance profits with social benefits.

An edited transcript of the conversation follows.

Katherine Klein: What is impact investing?

David Musto: Impact investing is a term that has gained a lot of currency recently. The term itself doesn't go back that far. It's usually sourced to about 2007, but it was referring to a practice that had grown significantly to that point. You will hear different definitions, but the definition that I think works best for our research is that impact investing is investing with profits in mind, certainly, but also some other social benefits, some other social purpose in mind. You can think of it as two bottom lines: making money and making the world a better place.

Klein: As a finance professor, what has intrigued you about this topic?

"Given the growth in impact investing, it's time to take a look at how people try to structure these contracts to pursue more than one goal at a time."

Musto: If you look at financial research and economic research in general, there's a lot of research on managing other people's money to make more money. That's a fundamental activity in the economy. All of us have some of our money being managed by someone else, and what

do we think they're going to do with it? Well, they want to make more money. That is a perfectly fine thing to do; there's a lot of virtue in that.

But if you think about laying another goal on top of that, then that really changes the relationship in a number of ways. Given the growth in impact investing, it's time to take a look at how people try to structure these contracts to pursue more than one goal at a time, and then also what happens.

Klein: As you think about the pursuit of these two goals — a social or environmental goal, and a profit goal — is your hypothesis that they are negatively related, positively related, it depends, or there's no relationship?

Musto: The initial intuition would be that if I am a fund manager looking at all of the ways I can invest your money, there are many different ways. If I trim that down by any method at all, including which of these different ways of investing for profit also serve some other goal, I have shrunk my investment opportunity set, and the best opportunity in that shrunken set is not going to be better than the best opportunity in the full set.

Logically, it could be worse because you have sliced away part of what you could have done. So, the initial intuition would be that that there is a tradeoff involved here. You gave up some possibilities because it's important to you to serve this additional goal.

Klein: You said that is the initial intuition. Does that mean this is up for investigation?

Musto: Yes, it's certainly an open question of what actually happens to your pursuit of profit when you add these additional goals, when you limit what you are willing to do. It's also possible that by picking an investment that serves a particular social purpose goal, this could turn out to be ex-post the more financially profitable thing to do, given changes in society and changes in regulation that differ the outcomes of projects in the future.

Klein: Before this paper, you were involved in research with the Wharton Social Impact team to look at how good is the financial performance of these impact investing funds. Tell us a little bit about what you found in that research.

Musto: This is a project where, with the Social Impact Initiative, we developed a database of funds that self-identify as impact funds. We could see money going out and coming back in. We can also see the appraisals of the companies that are still in process. You need all of those things. You need money going out, money coming in, and the value of what is still there as a sort of ongoing investment.

Putting all of that together, we [thought]: We can see now what is being made investing out in these portfolio companies by impact funds. Let's run a thought experiment where we are not investing out in those impact companies, but we are investing in just small stocks or something like that. It's something that is just some benchmark, an easily accessible investment.

Klein: Because you had to have some comparison to say how well are these investments doing relative to something else, correct?

Musto: Yes. So, we ran that thought experiment, and what did we come up with? Well, it was about the same. We did some statistical tests. I won't get into the details of that, but the bottom line was that it was about the same. We're not saying, "You're doing gangbusters here. You're making a huge amount more than you would have." It was about the same.

Klein: When this report came out, it was important news for the field.

Musto: Yes, you know about that shrinkage that you associate with eliminating things that are not socially beneficial or that may be socially harmful. So, what has happened to your financial returns? Well, we're not seeing a degradation.

Klein: This was looking specifically at private equity funds, right? They're not publicly traded.

Musto: This is all private investment, yes.

Klein: Got it. What is the focus of your new research?

Musto: One thing to point out is that it is that same database, but it's grown. We have more funds sharing their data. They were interested in the original research, and our partners helped us compile a bigger database. The point is that the database has not only cash in, cash out and audited financials, it also has the contracts.

"Look at the newspaper to see all the times that supposedly well-meaning people veered off of the path that their beneficiaries thought they were supposed to stay on."

Remember, there are contracts between the fund and the portfolio company. There's also the contract between the fund and its investors. You have contracts going in both directions, so this allows us to see how people implement impact investing. We know how people have learned to write contracts just in solving the general problem of delegated money management, which is already a complicated management, and people only have to look at the newspaper to see how things can blow up in that arena and how the contract can be very important. That is a complex contract environment with a long history. The question is, is this taking that and adding something more? Your investors want to see not just profits but impact. You have multiplied the issues that could arise. You might think that these are well-meaning people; you don't really need a contract to tell them what to do. Once again, look at the newspaper to see all the times that supposedly well-meaning people veered off of the path that their beneficiaries thought they were supposed to stay on.

It is an interesting legal question of what happens to contracting. We took those contracts from the same database and we engaged a team of law students. This is not just the Wharton School but also students from Penn's Law School who had to code this. In other words, you are reading the contract and seeing these terms. Terms tend to be boilerplate from one contract to the next. You use a term or you don't, and if you use it, it's probably worded similarly, one to the other.

So, you can start coding up a contract, then you can start asking quantitative questions about what is ultimately a textual item.

Klein: Do the contracts written by impact investing funds look different from those in more traditional funds? How do they deal with the fact that there are these twin goals of impact and financial performance?

Musto: The main thing we see, and maybe this isn't an enormous surprise, was the direct role of impact in the operation of the funds mandated by the contract. A fund will have a diligence process. Think of how a VC fund operates. They take pitches from easily 10,000 different startups. You have this gigantic order flow you have to distill down to the 10 or 20 companies they actually invest in. This is going to be mediated by different committees — investment committees, diligence committees and all of this. You can see the contracts would build in impact assessment into the process by which you make it or you don't make it in that filtering process.

"If there are impact investing fund managers reading this interview, we want your data, too."

Klein: That is a screening process that would not occur in a traditional PE fund, right?

Musto: Absolutely. You also see more governance by the fund in the portfolio companies, more presence on the board. Generally, you are going to see some appetite for presence on the board. If I am investing in a startup, I want to have more say over what happens, but there is even more of that.

Klein: It sounds like the key differences you are finding when you compare these contracts to the contracts in more traditional funds is, first, impact written into these contracts, and second, more governance.

Musto: Yes. We refer to that in the paper as "operationalized impact." That this is sort of guaranteeing that it ends up being part of the process.

Klein: Is your view that this counteracts window dressing? It means that as an investor you can actually be confident that we're taking impact seriously as we are selecting portfolio companies. It's not just marketing spiel that is not accurate.

Musto: I would agree that it is a fundamental part of the contract. One way to think about contracting is that it defines what you can get sued over. When I say that impact has to be part of the diligence process, anyone can sort of wave their hands at that. But we don't see the paper trail of how exactly impact assessment entered into the choice of

these funds, of these companies, and why you chose those and not others. Look, we hired you for a job and you didn't do it. That would be bad.

Klein: Did you see differences between impact funds that are most focused on profits and those that might be more comfortable with concessionary returns? Is that an important distinction among impact investing funds with implications for how they contract?

Musto:Yeah, it's just most directly. Of course, the compensation structure will alter a little bit in those situations. The compensation structure will be targeted towards a potentially lower threshold of expectations of profits in this case.

Klein: In those funds that are seeking concessionary returns, the way the folks who are working there are getting compensated is going to be less tied to profit. Is that what you are saying?

Musto: Essentially, the performance fee part of it will kick in potentially at a lower number. That's one way to think about it.

Klein: In terms of this operationalizing impact, do these funds differ this way? Are contracts more focused on impact in concessionary funds, or do they pay less attention to building that into the contract?

Musto: In that case, we didn't see a whole lot of statistically significant difference. There are some suggestive things, but I think this is where I don't want to go too far out on a limb. Of course, we're always hoping to build out our database and get more documents to help strengthen our sample size so that we can make more precise comments about that.

Klein: It's probably a good time to mention that the Wharton Social Impact Initiative is really eager to continue to build out our funds. If there are impact investing fund managers reading this interview, we want your data, too. Reach out to us.

Going back to your findings, what have you learned from this research?

Musto: I think you put it well about this question of window dressing. You can imagine a pension fund or some other investor investing in a fund that identifies as an impact fund, that says, "Look what we did. We're making the world a better place."

What's really happened here? I think you need to look very closely at what they legally agreed to in order to draw any conclusions about what the pension fund has done by investing your money this way. When you break open these contracts, you see there is a lot of commitment to the

social benefit in this contracting environment. It's showing us that this is more than just optics.

Klein: Impact investing is a new field. Getting the data together is difficult, which is part of the reason we've been working on this so much. What are the important questions for researchers in your field, or maybe other fields, to tackle as impact investing grows in importance?

Musto: One thing we want to address is the success towards the non-financial goals. I mentioned the previous research was all about the financial goals. That's half of it. The other half is going to be company specific, the goal is going to vary. Funds have different goals, and within the fund the companies have different goals. They would typically commit themselves to performance.

Their key performance indicators are going to reference a benchmark that they can be measured against. That would seem to be the other shoe here. Get those benchmarks, look at their performance. How did they do? What kind of success are they having towards these goals?

Klein: These questions of how companies manage these dual goals, when is there a tradeoff, when is there not, are topics that I think are interesting to academics across discipline whether you are in management, marketing or finance. I think it is very interesting to see a common question attract so much attention from so many different researchers.

What we have seen from these two papers you have done is, one, some encouraging news that you're probably making market rate returns in investing. That is what the initial findings would say. Two, the legal contracts are building in impact. You can have some confidence that impact is being taken seriously. I think what you are saying is, three, we would really like to know more about what that impact actually looks like, which is an important challenge.

Musto: Absolutely. And because it varies so much one company to the next, how can we make aggregate statements about this? We'll just have to see. We want to get the data, take a look and report back to you.





Many commentators suggest that gender diversity in the corporate boardroom improves company performance because of the different points of view and experience it offers. However, rigorous, peer-reviewed academic research paints a different picture. Despite the intuitive appeal of the argument that gender diversity on the board improves company performance, research suggests otherwise.

Results of numerous academic studies of the topic suggest that the presence of more female board members does not much improve — or worsen — a firm's performance. In this opinion piece, Wharton management professor Katherine Klein summarizes academic research on the topic and discusses the possible reasons and implications for these surprising findings. Klein is also the vice dean of the Wharton Social Impact Initiative.

Do companies with women on the board perform better than companies whose boards are all-male? Many popular press articles and fund managers make this claim, citing studies by consulting firms, information providers and financial institutions, such as McKinsey, Thomson Reuters and Credit Suisse.

Writing recently on Huffington Post, for example, one consultant observed the following:

"Rigorous, peer-reviewed studies suggest that companies do not perform better when they have women on the board. Nor do they perform worse."

"Companies with gender-diverse management teams have been proven to consistently perform better and be more profitable than those without them. There is overwhelming evidence to support the value of having more women in senior leadership positions. A growing body of research –including studies by McKinsey & Company — has proven that companies with more women in senior executive and board roles have advantages over those that don't."

But research conducted by consulting firms and financial institutions is not as rigorous as peer-reviewed academic research. Here, I dig into the findings of rigorous, peer-reviewed studies of the relationship between board gender diversity and company performance.

Spoiler alert: Rigorous, peer-reviewed studies suggest that companies do not perform better when they have women on the board. Nor do they perform worse. Depending on which meta-analysis you read, board gender diversity either has a very weak relationship with board performance or no relationship at all.

WEALTH OF DATA ON BOARD GENDER DIVERSITY

There have been many rigorous, peer-reviewed studies of board gender diversity. Given global interest in the effects of board gender diversity and the availability of abundant data on board gender composition and firm performance, many researchers have investigated the topic. The research literature includes over 100 studies of firms in 35 countries and five continents (Post and Byron, 2015).

Consider two recent meta-analyses that have been conducted to summarize prior research on the topic. Post and Byron (2015) synthesized the findings from 140 studies of board gender diversity with a combined sample of more than 90,000 firms from more than 30 countries.

Pletzer, Nikolova, Kedzior, and Voelpel (2015) took a different approach, conducting a meta-analysis of a smaller set of studies — 20 studies that were published in peer-reviewed academic journals and that tested the relationship between board gender diversity and firm financial performance (return on assets, return on equity, and Tobin's Q).

NO CLEAR BUSINESS CASE

The results of these two meta-analyses, summarizing numerous rigorous, original peer-reviewed studies, suggest that the relationship between board gender diversity and company performance is either non-exist (effectively zero) or very weakly positive.

Further, there is no evidence available to suggest that the addition, or presence, of women on the board actually causes a change in company performance.

In sum, the research results suggest that there is no business case for — or against — appointing women to corporate boards. Women should be appointed to boards for reasons of gender equality, but not because gender diversity on boards leads to improvements in company performance.

The two meta-analyses reached very similar conclusions, despite the differences in the underlying studies (140 studies vs. 20, etc.). Because meta-analyses provide a statistical summary — a sophisticated averaging — of the results of prior studies, their findings are much more credible than the findings of any single study. The fact that two quite distinctive meta-analyses reached nearly identical conclusions carries a lot of weight.

Post and Byron (2015) found that firms with more female directors tend to have slightly higher "accounting returns," such as return on assets and return on equity, than firms with fewer female directors. The relationship was statistically significant — suggesting it wasn't a chance effect — but it was tiny. (Statistical significance depends in part on sample size. So, a tiny effect is statistically significant if the sample is big enough.)

The average correlation between board gender diversity and firm accounting performance, Post and Byron found, was .047. This suggests that gender diversity on the board explains about two-tenths of 1% of the variance in company performance. The average correlation between board gender diversity and firm market performance (such as stock performance, shareholder returns) was even smaller and was not statistically significant.

Pletzer and his colleagues (2015) found that the average correlation between the percentage of women on the

board and firm performance was small (.01) and not statistically significant.

It's worth noting that even if the meta-analyses revealed a stronger relationship between board gender diversity and firm performance, we couldn't conclude that board gender diversity causes firm performance. To establish causal effects, you need to conduct a randomized control trial. But, that's impossible here; we can't randomly assign board members to companies.

GENDER DIVERSITY IN THE BOARDROOM

Commentators often suggest that corporate boards that include women will make better decisions than boards that include only men. The argument is that women differ from men in their knowledge, experiences, and values and thus bring novel information and perspectives to the board. They increase the board's "cognitive variety." The greater a board's cognitive variety, the theory goes, the more options it is likely to consider and the more deeply it is likely to debate those options.

"Women should be appointed to boards for reasons of gender equality."

We don't know exactly why this theoretical logic doesn't hold among corporate boards. It is worth noting that gender diversity in other kinds of work teams is not significantly positively related to performance, either. Despite popular press accounts that suggest that teams high in gender diversity outperform those composed only of men or only of women, rigorous research does not support this conclusion. Meta-analyses linking team gender diversity to team performance (e.g., Bell et al., 2011) reach much the same conclusion as meta-analyses linking board gender diversity to firm performance — that is, the relationship between team gender diversity and team performance is tiny.

What's going on here? Again, we can't know for certain why board diversity doesn't predict company performance, but it seems likely that some of the following factors explain the very weak and mostly non-significant effects:

The women named to corporate boards may not in fact differ very much in their values, experiences, and knowledge from the men who already serve on these boards. The argument that gender diversity on the board will improve company performance rests on the assumption that the addition of one or more women to an all-male board will increase the board's "cognitive variety" because women — the argument goes — differ from men in their values, experiences, and knowledge.

While research indicates that in general male and female adults differ somewhat in their values, experiences, and knowledge (and the differences are not huge), it's not clear that male and female board members differ all that much in their values, experiences, and knowledge. After all, both male and female board members are likely to be selected for their professional accomplishments, experience, and competence. If male and female board members are fairly similar in their values, experience, and knowledge, the addition of women to an all-male board may not increase the board's cognitive variety as one might expect at first blush.

• Even if the women named to corporate boards are different from the men on these boards, they may not speak up in board conversations and they may lack the influence to change the board's decisions. When individuals are minorities, tokens, or outliers in a group, they often self-censor, holding back from expressing beliefs and opinions that run counter to the beliefs and opinions of the majority of the group. And even when individuals who are minorities, tokens, or outliers speak up, the majority group members may discount their views. If these dynamics occur within corporate boards, boards may not take full advantage of their own cognitive variety.

"The women named to corporate boards may not in fact differ very much in their values, experiences, and knowledge from the men."

- Even if women who are named to corporate boards are different from the men on these boards and even if the women do speak up and influence board decision-making, their influence may not be consistently positive (or consistently negative, for that matter). Some research suggests, for example, that gender-diverse boards make fewer acquisitions than all-male boards (Chen, Crossland and Huang, 2016). But, is this good or bad for firm performance? Companies are likely to benefit from acquisitions in some circumstances and to suffer in other circumstances. If that's the case, the average effect on firm performance of adding women to the board and thus decreasing risk-taking may be
- And, finally, even if the addition of women to corporate boards does improve cognitive variety and decision making, companies may only see benefits to their accounting performance (their sales, profits, return on assets, for example) — not their market returns. Other things being equal, market analysts may, consciously

or unconsciously, regard all-male boards as more competent than boards that are more gender-diverse. If so, board gender diversity may be positively related to accounting returns, but not market returns. Indeed, this is what Post and Byron's meta-analysis showed. Still, the relationship between gender diversity and accounting returns was tiny.

WOMEN DIRECTORS AND OTHER DIMENSIONS OF COMPANY PERFORMANCE

While the relationship between board gender diversity and company performance is very weak, there appears to be a somewhat stronger relationship between board gender diversity and corporate social responsibility (CSR). Byron and Post (2016) meta-analyzed the results of 87 studies and found that board gender diversity is weakly but significantly positively correlated with CSR. The average correlation is .15. Board gender diversity thus explains about 1% of the variance in companies' engagement in CSR. This isn't a strong relationship, but it's a good bit stronger than the relationship between board diversity and corporate performance.

Again, it's important to remember that a significant correlational relationship does not prove causality. While it's possible that the addition of women to the board causes an increase in CSR, existing research cannot prove it. Companies that engage in CSR, or intend to do so, may be particularly inclined to appoint women to the board. So, existing findings could reflect a causal relationship, a reverse-causal relationship, or the effects of other variables. We don't know and cannot know.

Researchers have also studied the relationship between board diversity and various board decisions and practices such as acquisitions, board monitoring and dividend payouts (Ararat, Aksu, Cetin, 2015; Chen, Crossland and Huang, 2016; Chen, Leung, & Goergen, 2017). By studying outcomes that are more proximal or immediately related to board decision-making than is company performance, researchers may shed more light on when, whether, and how diverse boards differ from all-male boards. Still, given all the studies of board diversity and company performance that have been conducted to date, it seems very unlikely that new research will reveal a strong, clear relationship between board diversity and company performance.

CEO GENDER AND FIRM PERFORMANCE

Given the findings of research on board gender diversity, one might wonder about the effects on company performance of CEO gender and top management team gender diversity.

Rigorous, academic studies of CEO gender and company performance tell much the same story as rigorous, academic studies of board gender diversity and company performance do. Ditto for studies of the gender diversity of the top management team.

The best evidence comes from a recent meta-analysis of 146 studies (Jeong and Harrison, 2017). The relationship between CEO gender and long-term company performance is statistically significant, the authors find, but tiny. The average correlation between CEO gender and long-term financial performance is .007. It's hard to get much closer to zero. Similarly, the relationship of top management team (TMT) gender diversity and company performance is statistically significant but very small. The correlation is .03. The authors conclude the following:

"Undoubtedly, breaking the glass ceiling matters. It signals an end, or at least the beginning of an end, to gender exclusivity in firm leadership. Are there further consequences for firm performance if females join a firm's upper echelons? If so, how and when? An immense investigative effort has been devoted to these questions:

over 140 studies in the past several decades, conducted in dozens of countries, and published in journals from many different disciplines and theoretical traditions. Yet, the answers have not been clear or consistent.

Using meta-analytic techniques, we have uncovered findings that help to settle some of those answers. Our foremost conclusion is that there is no cumulative, zero-order evidence of long-term performance declines for firms that have more females in their upper echelons (as CEOs or TMT members).

By and large, the obverse is true: breaking glass helps firms — slightly. There are small but dependably positive associations of female representation in CEO positions and TMTs with long-term value creation for a firm's fiscal outcomes. The modest size of the positive effects helps explain ambiguity and inconsistency in prior scholarship (past research has been triangulating on a weak signal in a noisy field), and they caution against overclaiming about strong or causally dependable financial benefits (Eagly, 2016).





Why Companies Need to Manage Environmental, Social and Governance Risks

Companies are increasingly scrutinized on how they manage environmental, social and governance (ESG) risks. These could be external risks such as land disputes with indigenous communities, or internal factors such as on how well they take care of their employees. Research by Wharton management professor Witold Henisz shows that ESG risks do affect a company's bottom line.

He recently shared some of his findings on the Dollars and Change show on Wharton Business Radio, which airs on SiriusXM channel 132. He spoke with Wharton management professor Katherine Klein, who is also vice dean of the Wharton Social Impact Initiative, and Sherryl Kuhlman, its managing director.

Below is an edited version of that conversation.

Katherine Klein: How would you describe the focus of your work? Is it sustainable investing? Is it ESG investing? Is it ESG metrics? What's captivating your interest in your research right now?

Witold Henisz: I'm focused on this exciting space which is evolving rapidly where firms are dealing with non-traditional risks — risks that emanate from the social sector and from the external stakeholders around them, whether they be community leaders, NGOs, or government officials who are upset or concerned about pollution, human rights and social rights. And that is translating into material risks for companies.

"When stakeholders are upset or outraged, and they protest or sue a company and demand regulatory action, that's material risk that the company needs to deal with."

I'm not looking at it solely from a social perspective, or solely from [from the standpoint of] social welfare. I'm trying to say that when stakeholders are upset or outraged, and they protest or sue a company and demand regulatory action, that's material risk that the company needs to deal with. The companies that deal with it better can deliver superior, sustainable returns.

Sherryl Kuhlman: Let's get more concrete. Help our listeners think about, "That's a real risk for that company," or "I don't think highly of this company when I hear that they're doing X." Is this Uber?

Henisz: You can look at the new economy and Uber. I started looking at the older industries — the gold mines, the oil fields. How much is ExxonMobil worth today? If you're trying to value that company, you start with the value of its reserves. But what's the price of oil going to be in 10 or 20 years? How are carbon fuels going to compare to solar, wind or others?

In order to value the future of Exxon you need to understand whether we're going to have a carbon tax, what our climate change policy is going to be and what a 2-degree solution looks like. (Climate scientists have for two decades called for a global warming cap of 2 degrees Celsius above pre-industrial levels; a United Nations panel recently lowered the target to 1.5 degrees Celsius). ExxonMobil has a duty to disclose that to its shareholders. That's one example.

Kuhlman: And do they?

Henisz: There's a lot of pressure on them to do so. That's the first place you're starting to see this integration, where what used to be thought of as an ESG risk is now all of the sudden being pressured to be in the annual report, and

not just in the sustainability report. ExxonMobil is not one of the leaders in that space, but they're certainly under pressure to disclose and reveal the sensitivity of their forecasts to different climate change policies.

Kuhlman: You began by talking about stakeholders who are putting pressure on companies, and stakeholders who are protesting them, but that's not as clear to me in the ExxonMobil example. Are there other examples?

Henisz: In the ExxonMobil case, many people are pushing for some sort of a carbon tax, and policies to address climate change. A simpler example is that of a gold mine in Romania sitting on a couple of million ounces of gold where the development of the mine has been wrapped up in corruption scandals, and concerns around the use of cyanide. The government has been reluctant to move forward with the environmental permitting of the mine. It's been sitting fallow for 15 years since the first development project. This could have been a \$10 billion project in the heart of the European Union.

CREDITORS' INTEREST IN ESG RISKS

Klein: These are compelling examples of why corporations need to be attentive to these social environmental risks, and their implications for the financial performance and growth of these companies. Do we need research on this? That sounds like a no-brainer.

Henisz: In the research that I'm working on right now, we're trying to get inside the relationship that I was describing. There's been a burst of activity. [It goes beyond] looking at how environment, social and governance factors affect stock prices: Is there an alpha? How much do [investors have] to give up in terms of returns or can we reduce the volatility of returns?

But if you think about who takes a long-term perspective, looking 10 to 20 years out, it's been the creditors. There has been a surge of interest looking at bonds and loans, and trying to see if better management of environment, social and governance risk factors affects loan spreads, credit spreads, or credit default swap spreads.

There has been this implicit argument that it is because of things like lawsuits, regulatory actions and strikes [that cause] volatility of earnings, which affect [a company's] ability to pay back the loans. Creditors should be concerned about. But that last piece, there hadn't actually been any empirical research on it. ... [But] there is data that shows that credit default swap spreads, credit spreads and loan spreads actually do correlate with the ESG risks.

Kuhlman: What do these terms mean?

Henisz: [Spreads are] the amount that you have to pay above some baseline interest rate about some risk-free

return for your loan. So for a riskier project, you have to pay a higher interest rate. The amount you pay goes up if you're not very good on ESG. Credit default swap spreads are financial derivatives whose prices are correlated with the likelihood that a bond will default. So you see credit default swap spreads — or essentially the insurance on a bond — also moving with these ESG risks.

"What used to be thought of as an ESG risk is now all of the sudden being pressured to be in the annual report, and not just in the sustainability report."

But people hadn't zeroed in on why that's happening or what are the mechanisms. What we did was pull information from Bloomberg terminals on what are called credit events. These are material events which could impact the payback of a bond, like lawsuits, regulatory actions and strikes. We found striking increases for firms that are not managing their social risks well.

[That is particularly so] in a project where we're looking at the risk of managing indigenous land claims — or major projects that are close to indigenous populations. The Dakota Access Pipeline is a great example in the U.S. Many of these large oil fields or pipeline projects are close to lands that are claimed by indigenous groups in Latin America, Asia and Africa.

That proximity generates a real need to manage your stakeholder relations — to work with stakeholders, to come to an understanding of how you are going to share the benefits. If you don't do that well, they're going to be protesting, filing injunctions and demanding investigations. We show that these events are 50% to 160% more likely for projects that are proximate to indigenous land claims. That correlation is even higher or stronger for firms that aren't rated well on environment, social and governance factors.

Klein: If I'm a company that is working in this area and I'm not managing these relationships with indigenous populations well, does my company have a greater likelihood of ending up having to pay more for the loans, and for the long-term investments that we are getting?

Henisz: They are [likely to pay more]. Our research tries to get at why [that is the case]. Why are the creditors suspicious? What is it that they're worried about? Well, they're worried that there's going to be a regulatory action, which is going to lead to a delay by a year of the construction of the pipeline, which means a year before there's any revenue. There's a greater likelihood of a lawsuit, which is going to claim they're violating, maybe, formal land claims or they're violating civil rights or human rights. Or there's a strike. We're showing why.

Other scholars have shown that creditors are charging more [when such ESG risks exist]. There's been a burst of activity in the accounting literature exploring that correlation. But the explanation for where should you look and where are the variances that are causing those loans to be less likely to be paid back or to be riskier, is what we're digging into.

MANAGING EXTERNAL AND INTERNAL RISKS

Kuhlman: Are corporations able to mitigate those risks? Some of it is external, such as regulatory [actions]. There's the relationships with stakeholders where clearly they can take some action. How much can they control and mitigate?

Henisz: That's what I teach in my course here at Wharton on corporate diplomacy. There's a lot that companies can do. You start by knowing who your stakeholders are. You do due diligence on how to build the pipeline, where is the gas, and what's the price of gas. But have you actually mapped your stakeholders? Do you know where the indigenous land claims are? Have you mapped the issues they care about? Have you looked at the issues of education, development, poverty? What are the social stresses on that population?

"The amount you pay goes up if you're not very good on ESG."

Have you thought about it not as a philanthropic activity, and not as something that you do because you're nice or because you've got some extra money? That's the wrong attitude. This pipeline isn't going to get built if you haven't addressed the indigenous issues, if you don't have the relationships, if you don't have their support, and if you haven't won their hearts and minds.

You have to think about the project overall — building the pipeline, financing it, the cost of gas, and the cost of winning the hearts and minds altogether. And that may mean shifting your operational plan, or shifting your financial plan. You have to take it from a more holistic, enterprise risk management perspective.

How do you know you're actually doing that? Someone on the board should be looking at your stakeholder map. Someone should be looking at your stakeholder management system, and at your enterprise risk management system. It should be validated by auditors. It should be externally audited. The people who are staffing your stakeholder and risk management functions shouldn't just be specialists or consultants who pop in and out; they should be part of the senior management rotation.

You want to get into the C-suite? You should have gone through external affairs. You should have gone through

community engagement. That should just be part of the process. And everybody's compensation and promotion should be influenced by how well their company and their unit is working with external stakeholders.

STAKEHOLDERS AND THEIR CONCERNS

Klein: What questions should companies be asking to understand who their stakeholders are?

Henisz: It's easy to think that the stakeholders are inside the value chain — suppliers, buyers, workers. Companies do a pretty good job of [managing] that. But it's the external stakeholders that are harder. There are three easy questions to ask. It's not a priority or a ranking; they are just three questions that will help you fill out the roster.

The first one is, "Who's directly affected by what I'm doing?" Who's richer or poorer, sicker or healthier, or who faces a direct impact based on my organization's activity? The next tier is, "Who's directly affected by my suppliers' or buyers' activity?" Sometimes you're targeted not because of what you're doing, but because of something your supplier or your buyer is doing and you're just a convenient target to influence them.

The third one is the trickiest where it really gets most broad, [which] is: Who just cares about what I do? Anyone who has an axe to grind in your space can suddenly target you. That's where a lot of the NGOs and the social activists will come in, because they're more broadly concerned around something like human rights and the environment, and you're having an impact on that. They're not directly affected by you, they're not materially affected, they're not sicker or healthier, but they just care about pollution or they care about water and you're doing something that affects water and so you become a target.

... We have to recognize that there's a longer-term set of relationships we have with both internal and external stakeholders. We want our workers to stay. We want them to be productive. We want them to innovate. We also want our community members and the governments and civil society outside the fence to be working with us and cooperating with us in the longer term. ... It's often the same companies who treat their workers better who take the same logic and say, "Well, why don't we have better relations with these civil society organizations?"

Klein: Sherryl, as we talk about relationships with the larger community, ... there are a lot of conversations around anchor institutions. If an anchor institution takes its role seriously, are they doing what Wit [Henisz] is describing?

Kuhlman: The point about anchor institutions is that these are things that aren't going to move. ... They're very

much tied to the community in a variety of ways. This has increasingly created some sense about how we work with our community so that it improves, but that also our relationship improves.

Henisz: There's a great new book that's coming out, by Myles Shaver at the University of Minnesota. He looks at the broader set of companies — Minneapolis has an enormous density of Fortune 500 headquarter companies.

All of them have had a long-term, forward-looking orientation towards how they manage their relationships with the community. And they haven't been as focused on quick tax breaks and these little transactional things that you often see. They've really thought about, how do we make this a great place for families, make people come here for the universities, make people want to come here and want to stay here?

... The logic that we're talking about goes from your workers to the community around you to the regional government, and to the national government. It's thinking about how everything is interconnected and our relationship as a company with that entire sociopolitical ecosystem is important for our long term returns.

When we just focus on the short term, and on what minimizes costs today, we're often creating the basis for anger and backlash maybe next year or maybe five years from now. But if we look out into the long term and we don't incorporate that, and if our financial models miss those connections, we're not going to be a company that's going to be around in the long term.

CORPORATIONS TAKING POLITICAL STANCES

Kuhlman: We've had several guests who've talked about companies doing a little bit more around advocacy, taking a political stance, like Nike. (Nike's recent ad campaign featured Colin Kaepernick, a controversial former San Francisco 49ers quarterback who protested racial injustice by refusing to stand when the national anthem is played.)

Henisz: That's a great example. When there are issues like immigration, racial tensions or trade policy, where so many companies have a stake in the policy outcome, I think there's a responsibility of companies to engage on some of these issues. I think you're seeing that. Nike is appealing to a younger, urban demographic. I think it [fits] with its image.

People expect CEOs and companies to weigh in on some of these social challenges. It's a delicate question. You go back to [Merck CEO] Ken Frazier's decision to leave the president's [American Manufacturing] Council early on in the Trump presidency. Some of these issues are so large and so material that companies do have a responsibility

to act and speak about what they value and what their stakeholders are concerned about.

Klein: In some of these cases, there may be a tension that the CEOs have to reconcile between a short-term response and a long-term response.

Henisz: Sure. People were burning the Nike shoes. But

"When we just focus on the short term, and on what minimizes costs today, we're often creating the basis for anger and backlash maybe next year or maybe five years from now."

they were also buying them. There was a surge of interest. CEOs shouldn't do this based on a personal whim. When they're acting out on these advocacy issues, they have to make clear when they're speaking for the company. The Nike [ad] was a powerful one where the company felt that its stakeholders identified with a whole host of [issues about] injustice and other challenges.

GAPS IN DATA QUALITY

Klein: You've been very interested in investment practices. How good is the data that we have on companies, on these different dimensions?

Henisz: There's a really stinging *Wall Street Journal* article that looks at a number of different ESG ratings providers, and at some companies [they rate]. There's almost no correlation across them. It's really frightening. ... If you look at bond ratings, S&P's, Moody's and Fitch are correlated between 90% and 95%. ESG ratings are correlated between 5% and 50%. There's a lot of noise. And so we have to be careful when we're using them.

But we're starting to see new data providers that are using not just information that the company provides in their sustainability reports or in response to surveys, but are using artificial intelligence, natural language parsing to surf the web, the news media, government regulatory filings, social media and try to map on what stakeholders are saying about companies to environment, social and governance risk factors.

... There is still a long way to go in terms of providing enough reliability, enough time series, and enough precision to guide both creditor and equity investors and managers. That's the ultimate goal — to make this a management tool so you know where you're performing better or worse.



How Fintech Is Transforming Microfinance

Opportunity International, a Chicago-based nonprofit, believes that the path out of extreme poverty for many people around the world lies in entrepreneurship. It provides access to microloans to the very poor as well as financial expertise to help them run their small enterprises. Founded in 1971, the organization operates in 22 countries. Its network comprises 48 organizations, 39 of which are microfinance institutions. It also focuses on what it calls EduFinance — harnessing private-sector finance to improve the quality of education in developing countries.

Robert Dunn, Opportunity's global executive director, spoke with Knowledge@Wharton about the nonprofit's journey so far, its future plans and how fintech is dramatically changing the way microfinance operates, among other issues.

Following is an edited transcript of the conversation.

Knowledge@Wharton: Microfinance has been around at least since the 1970s. But often, it is not well understood. Could you explain what it means and how it has evolved in recent years?

"The concept of fintech is very exciting, particularly in respect to credit scoring and figuring out what products are needed by different people."

Robert Dunn: Microfinance is usually thought of as microcredit. When people say microfinance, many think of it as a small loan, often to a woman. In Asia, where I've spent a lot of time recently, the way this works is that a number of women co-guarantee each other's small loans. We're talking about loans of around \$200 to \$300 to set up or to grow a small business. This loan is repaid over, say, six to 12 months. Typically, around five women crossguarantee each other's loans.

This model has worked well for a number of decades in Asia, sub-Saharan Africa and Latin America. It has its roots in Grameen Bank [founded in Bangladesh by

Nobel laureate Muhammad Yunus]. But many others also invented that model around the same time that Muhammad Yunus did, including the founders of Opportunity International. In more recent times, the model has changed because of the availability of digital tools. Mobile phones, in particular, are making a big difference in the way microfinance products, not just credit, but access to remittances, savings, insurance and pensions, are able to be distributed. And that is dramatically changing the way microfinance is operating and who is doing the microfinance.

Knowledge@Wharton: How big is the market now and which parts of the market are evolving the fastest?

Dunn: It's a multi-billion dollar market and it's evolving fast in developing countries across the world. Latin America and southern Asia are particularly fast growing areas. There's been tremendous growth in mobile banking in sub-Saharan Africa also in recent years. Microfinance was started by people who were focused on helping people out of poverty but now it is mainly run by commercial players. Most players now are focused on providing financial services to what's often called the "bottom of the pyramid." That doesn't mean that there aren't socially focused players in the market. Opportunity International is one of

them. We focus more on marginalized people, people who are left behind, and we make sure that the excluded have access to responsible financial services.

Knowledge@Wharton: What impact has financial technology or fintech had on microfinance?

Dunn: The World Bank recently released a report on the state of financial inclusion. In the past three years there's been tremendous growth in access to financial services, particularly in India, which has been the fastest growing area. By and large this [increase in access] is being driven by government policy and that's been the case in India also. The Indian government has decided that everyone should have access to banking and it has put in place mechanisms to make that happen. But this doesn't mean that people are actively using these facilities.

In countries like India, for instance, there are a lot of people with bank accounts but not many people use them. But that has been the biggest change in financial inclusion — giving people access to financial services. Through bank agent networks people can now operate bank accounts through cell phones. You don't need smart phones; you can do this even with feature phones. All you need is access to an agent network and a cell phone. The bank agent network has been the fastest growing development in microfinance in the last five years.

The concept of fintech is very exciting, particularly with respect to credit scoring and figuring out what products are needed by different people. But it is at an early stage. The exciting development, I believe, will be the use of credit scoring algorithms based on social media footprints for lending to small- and medium-size businesses. This is not microfinance as we [typically] think of it, with \$100 loans or \$1,000 loans. It is about approaching the "missing middle" — people who are employing other people but can't get access to finance.

Knowledge@Wharton: How is your strategy evolving in response to this transformation in the competitive dynamic that you just described?

Dunn: Our strategy is to move from a narrow focus to a broader focus. We focus on specific target client groups, look at what is their pathway out of poverty, what are the blockers on that pathway and what can we do about it.

Ten years ago, Opportunity was more into microfinance products. We raised money from donations in countries like the U.S., Canada, Australia, the U.K., and Germany and we had a limited set of products that we would apply that money for. We would also raise money to fund small loans. We have a broader approach now. Instead of only working through a microfinance solution, we look at all solutions

that are needed for a family to move out of poverty. Our aim is not to be the provider of all the solutions. We partner with other specialist providers.

In northern rural India, for example, we partner with health providers and organizations that build toilets and provide access to clean water because that's a major issue for people in these areas. It's no good having a small business if you can't operate your business because of sanitation-related health issues.

Another problem is access to good schools. We often tell the story that a microfinance client is doing a particular activity in order to educate her children, especially her daughters. But if there are no good schools around, if there is no good education service being provided, then that's a problem. We try to solve that issue. So we are partnering with different types of organizations, education providers, health providers, water and sanitation providers. We are looking to not only raise donations, but working on how we can raise impact investment funds to help finance this.

Opportunity doesn't finance small loans. We provide technical experience to financial institutions like microfinance organizations to help them become stronger so that they can provide these services, which is a much more leveraged approach. Sometimes we put equity into these businesses in order to strengthen them so that they can grow their operations.

"Educating children is an important circuit breaker to the continual cycles of poverty."

Knowledge@Wharton: What led you to focus on educational finance? What's the nature of the market need and how did you develop your approach to serve that need?

Dunn: There's a lot of linkage between education and poverty, particularly with girls. The longer girls stay in school, it's less likely that they will have children early and continue in poverty and have their children continue in poverty. Opportunity International is primarily concerned with seeing people in livelihoods and jobs. And educating children is an important circuit breaker to the continual cycles of poverty.

Currently, there are around 620 million children of school age who aren't learning. Some 350 million of them are in schools, but they're not learning anything. The rest are not in schools at all. We have some alarming statistics. In India, for example, only half of grade five students in primary school or elementary school can read at a grade two standard.

Opportunity International has developed an educational finance program that has two objectives. One, help more children get into schools where they can learn. Two, help those schools become better. We do this initially through financial services, but also through educational consulting. There are two approaches in terms of financial services. One is to ensure that parents of school-aged children can afford to have them in school. This is primarily through making school-fee loans that suit the needs of the parents and their income and cash flow patterns.

Second is to provide finance to the schools so they can build classrooms or a dormitory or a toilet block or get a school bus or train teachers, and thereby become better schools.

Knowledge@Wharton: Do you finance initiatives focused only on children? Or, do you also try to educate grassroots entrepreneurs?

Dunn: In the area of education, we focus only on primary schools and high schools and children in this age group. But in our microfinance services, there are financial literacy training programs and other training programs for adults.

Knowledge@Wharton: How do you measure impact in the educational finance space? More importantly, what have you been able to achieve and what are your goals for the future?

"Since our main focus is to get children to learn, the impact has to be around the quality of education being provided."

Dunn: Our approach of assisting a financial institution to make the school-fee loans and the school-improvement loans requires them, and also the schools that they are funding, to report to us. So we keep abreast of the progress, not only of the schools but of the loan products as well.

We have made around 5,400 school-improvement loans totaling approximately \$62 million. This has impacted around 1.3 million students. This program has largely been in Africa, but it's now in Latin America and Asia as well. Similarly, there have been 180,000 school-fee loans totally around \$48 million. This has impacted about 560,000 children.

Since our main focus is to get children to learn, the impact has to be around the quality of education being provided. We have developed a program with global education experts whereby we can assess and also help the schools assess the quality of their education. This program looks at 31 characteristics of a school like its curriculum, discipline, facilities and so on. There are five levels of performance from the most basic to the most advanced. For each of these 31 characteristics, we have a pathway and the tools to help the schools move to the next level.

We are talking here about affordable private schools. For example, consider a school somebody started with just 20 or 50 students. Over time, it grows to a couple of hundred students and they need some classrooms. So we help finance the classrooms. Often, these schools are isolated. The leaders of these schools are not in any system. We cluster together all these local schools that are getting financed by financial institutions. After that, we help them work together to improve the quality of their education. And then we track those improvements.

Typically, in developing countries the governments know around three data points about a school. One is where the school is located. We have hundreds and thousands of data points on schools as we track their education journey over time. We now have more than 800 schools that are working together with other schools to improve their quality of education.

Knowledge@Wharton: What are the main lessons you have learned in this journey?

Dunn: Well, it's almost the same lesson as in microfinance. When people set out to do something like wanting their children to have a proper education and they're disappointed with what's available, they start homeschooling their children. Then the neighbors' children also start coming to them for studies. And all of a sudden, a mother or a father becomes a teacher, becomes a school entrepreneur. If there's a real passion to help their children lead a different life, to become educated, then there's no end to possibilities.

We have seen ordinary people do the most extraordinary things. Some of them now run schools with 1,000 to 2,000 children. We've helped them over 10 years with finance to build schools and have hooked them up with other education consultants and experts who can help them in their venture. This is what we see in microfinance as well. An entrepreneurial person starts a business and down the road she starts employing other people. These people now have jobs and their lives are changed. Their children also see them — their mothers or fathers — in a new way.

Going forward, the possibilities for Edufinance are huge. So far, we have helped some 2.3 million children through our work. Our aim is to grow this number to over 15 million children by 2022. Within the next four or five years we expect to expand from 16 countries where we operate at present to 45 countries. We currently work through 26 financial institutions and we plan to increase this to around

90. Currently there are just over 800 schools that are working in our education quality program. We think that this can grow nearly 10 times.

Knowledge@Wharton: Before you joined Opportunity International, you worked at PricewaterhouseCoopers and Patrick Corporation. What led you to join Opportunity International in 2006?

Dunn: I actually joined it for a break. I started my career in accounting and ended up as CFO of an industrial company. In 2006, we had a very tough and busy year. We were subject to a hostile takeover and my colleagues and I left that business. When I was thinking of what to do next, the chance of working with Opportunity came up. It was very different to where I'd been and I thought I could refresh myself by using my business skills for social good.

I liked the idea of making a difference in the world using a set of business skills. I found Opportunity International appealing because it cared about sustainable development. It was about a hand up, not a hand out. It was about helping people get on with their lives and work their own way out of poverty. This approach appealed to me as a businessman and I thought it would be a good thing to do for a little while.

So that's how I started. But the more I got into it, the more it resonated with me that this is an important thing to do. We were making a difference in the world and we could see the change. When I joined around 12 years ago, we were just starting a program in India. That program now serves more than 4.5 million families. It has aggregate loans of a billion dollars through our partners. We put in about \$50 million and the rest has been leveraged and provided by others. We also helped socially responsible microfinance organizations.

It's been a difficult road. I had to apply everything I learned in business about resilience and staying the course. It's been difficult, but it's been satisfying. The heroes are always the local people. They're the ones who are doing the hard work. We just come alongside and help them.

Knowledge@Wharton: In the 12 years that you've been at Opportunity International, what has been the biggest leadership challenge you have faced? How did you deal with it and what did you learn from it?

"The heroes are always the local people. They're the ones who are doing the hard work."

Dunn: The biggest leadership challenge is you don't always see the way ahead, but as a leader you need to be able to inspire people to come with you on the journey. If you can't tell people how it's going to play out, that makes it difficult.

We live in this complex environment where it's not always clear how the journey will unfold. Sometimes, the complexity is around regulations. In the countries in which we operate, we appear as foreign investors or foreign financiers, and foreign investment regulations are continually changing. Also, we don't look like the normal investor because we have a social focus. So we can be confusing to regulators and that can be difficult for us.

We have a commitment towards impact investment. That is a long and difficult journey. Taking people along with you on that journey when we don't always know how things are going to play out is a challenge. It's worked at Opportunity because almost everyone here is passionately committed to the mission of helping people out of poverty. Because of this focus on the mission, they are willing to come along on the journey even if they don't know how it's going to unfold.

Knowledge@Wharton: How do you define success?

Dunn: We're very passionate about measuring impact. For us, the impact is this: Are the poor getting out of poverty? It's easy to measure success around fundraising or growing the number of clients. But ultimately, it is all about getting the poor out of poverty. That's the way we measure success.



The International Finance Corporation (IFC), a sister organization of the World Bank, is making a big push in the Asia-Pacific region. The IFC provides financing, advisory and other services to boost private sector development in developing nations and has set a goal of ending extreme poverty and promoting shared prosperity in every country by 2030. The organization operates by aligning multiple stakeholders to a common vision, leveraging innovative financing instruments to reduce project risks, and helping to pioneer private investments.

Those approaches are ideal for projects in emergingeconomy countries where political and sector risks run high, according to Nena Stoiljkovic, IFC's vice president for Asia and Pacific. Pulling more private funds to the projects is particularly important in the region, which accounts for 60% of the world's population but has widespread poverty, she said in a recent interview with Knowledge@Wharton.

"We can bring a lot of the trillions that sit in institutional investment companies to emerging markets to finance some of those much-needed projects."

It helps that in her previous role as IFC's vice president of blended finance and partnerships, Stoiljkovic worked on developing new instruments to "de-risk private sector investments in emerging markets," among other global initiatives. It also helps that several countries are displaying technological prowess in sustainable development technologies such as in combating climate change.

For example, an IFC project in Singapore is a model that can be replicated in emerging markets, while other economies such as Indonesia, the Philippines and Vietnam are promoting low-carbon energy generation through increased energy efficiency, particularly solar and wind, hydropower and geothermal and green buildings. Meanwhile, Bangladesh and Indonesia are proving to be fertile markets for fintech companies and the financial inclusion they bring to underserved populations.

THE 'CASCADE' APPROACH

According to Stoiljkovic, the Asia-Pacific region needs \$3.5 trillion in infrastructure financing every year. "A cascade approach" that the IFC has designed would help achieve the sustainable development goals of the region, she added. "That's a simplified way of talking about maximizing finance for development. What it really means is that whenever you can finance something through the private sector, do not resort to public sector [financing] – especially grants – because these are precious sources of financing that should be used only where the private sector cannot do it."

When a project is presented, the IFC asks whether there is a sustainable private sector solution that limits public debt and contingent liabilities. "If the answer is 'yes,' then promote private solutions. If the answer is 'no,' ask whether it is because of policy or regulatory gaps or weaknesses, and how the World Bank can support policy and regulatory reforms," she said. "And if it is because of risks, we can see what World Bank instruments we can bring to bear."

In essence, that "cascade" strategy implies boosting private sector financing. "The only way we will be able to put trillions of dollars into development by 2030 to deliver on SDGs (sustainable development goals of the U.N.) is to create conditions for the private sector to provide financing that's needed," said Stoiljkovic.

The IFC is also pushing for policy reforms in public sector institutions. "When we connect it all with the same goal,

we can bring a lot of the trillions that sit in institutional investment companies to emerging markets to finance some of those much-needed projects," Stoiljkovic explained. At the same time, she stressed the overall need for effective collaboration among nonprofit organizations, the public sector, private sector financiers, commercial banks, private equity funds and institutional investors. The World Bank Group has tried to promote this concept with other multilateral development banks through work on mobilization definitions and common blended-finance principles.

THE JORDANIAN CASE

The "cascade" strategy sets out to make systematic what has happened informally over the years in the World Bank. One example that stands out is Jordan's project to build a new terminal at its international airport that ran the better part of the past decade, Stoiljkovic noted. The King of Jordan had originally planned to finance it solely through public sources. However, a World Bank team leader suggested that it would be better to build a private airport, which could generate ongoing revenues for the government.

The IFC helped set up a public-private partnership financial structure for the project, where the government awarded the contract to a French company to build and operate the airport on essentially a lease basis.

Between 2007 and 2016, the IFC assumed three roles: an advisor to the Jordanian government; a lender and lead arranger of financing; and portfolio manager during the implementation of the project, according to an IFC note. Queen Alia International Airport "is now one of the most successful airports in the world," said Stoiljkovic.

The financing plan for the airport helped conserve substantial government resources, she added. The Jordanian government went from subsidizing airport operations at a cost of \$23 million per year to receiving an annual fee from the operator to run the airport amounting to more than 50% of the net revenue — the highest revenue share ever bid on an airport PPP project. This has added up to over \$1 billion in revenue for Jordan over the last decade.

The IFC is adopting similar approaches in solar energy and climate-change reduction projects in Africa, with the private sector providing the financing, and the public side providing regulatory and policy support to institutions like the IFC to structure the bidding processes and contracts for private operators.

RETOOLING FINANCIAL INSTRUMENTS

One important aspect of the financing structures the IFC puts together for such projects is "de-risking," or finding ways to reduce the risks for private financiers. In several emerging-economy countries, the economies are "fragile and conflict-affected," or have other political risks, Stoiljkovic noted. At times, such projects also face technological risks — for example, a solar power initiative, if it happens to be the first of its kind in the country.

"Public sector [funds] ... are precious sources of financing that should be used only where the private sector cannot do it."

In such cases, the IFC steps in with "blended finance instruments," such as "loans with much longer tenures than the market can provide" or other instruments such as guarantees and even equity to reduce the overall risk profile of the transaction. That approach, which uses relatively small amounts of donor financing to target specific risks in private sector projects, allows private sector investors to earn satisfactory returns on infrastructure projects, Stoiljkovic explained. The IFC has successfully implemented several such first-of-its-kind solar power projects across Africa and in South Asia, using those blended finance instruments as incentives to help investors offset some risks.

All those initiatives are part of a broader refresh of the ways in which the IFC approaches project financing. In earlier years, it would raise money through bond offerings, where government guarantees would help it secure attractively low rates, and use such funds to support private sector projects. Its traditional approach was also to wait for projects to be ready for financing.

Now the IFC takes a different approach, where it can help create a market for a project if one doesn't exist, Stoiljkovic said. These may be privately operated solar or hydroelectric power projects, new fintech instruments, digital education or health care initiatives. What's more, the IFC attempts to "connect all the players" in a project with each other, which may include the World Bank, commercial investors, nonprofits, and of course the IFC itself, she added.

A prime example of such an approach is in the building of the 750-megawatt Rewa solar power project in India's Madhya Pradesh state that is slated to be commercially operational in December. Here, the World Bank provided advice on the resettlement of people around the project site while the IFC structured the deal and provided financing.

"We worked in sync because one without the other – just the advice on resettlement without private financing – it would not have worked," said Stoiljkovic. The Rewa project and other such solar power projects that the IFC has financed account for 15% of India's solar capacity.

ASIA AND CLIMATE CHANGE

A big chunk of the IFC's work is directed at climate change mitigation, which includes projects such as the Rewa plant. In that space, Asia is an important market for the IFC. "Asia in particular is interesting from a climate change perspective, because it is a region where many people live around the coast," said Stoiljkovic. "It's also very fragile in terms of being prone to climate change effects, whether they are storms or tsunamis."

"Asia in particular is interesting from a climate change perspective, because it is a region where many people live around the coast."

At the same time, Asian countries, such as India, Indonesia, Vietnam and China, are developing innovative technologies in the production of solar power equipment, batteries and related products, said Stoiljkovic. Climate-change mitigation projects in global emerging markets — such as in renewable energy — now account for some \$18 billion of IFC financing annually, which is close to a third of its overall financing outlays, she added.

Some of that takes the form of "green bonds," which provide an alternative source of long-term green finance used exclusively for climate-friendly projects, including in agribusiness where crops can be protected from the adverse impacts of climate change, she added. In December 2017, the IFC enabled the first green bond to be issued by a financial institution in the Philippines, which is particularly vulnerable to the impacts of climate change. The proceeds are to be being used in renewable energy, energy efficiency and green building projects.

Stoiljkovic further noted that the IFC has supported climate-friendly technologies by advising local banks in emerging economies about financing "climate-smart projects." This adds to its efforts to help build capacity and provide advisory services. In addition, the IFC finances a "green energy efficiency alliance" by providing local banks credit lines that they could use to provide loans to their small and medium-sized clients.

DIGITAL BANKING FOR THE UNDERSERVED

Another example of how the IFC's new approach works: a fintech company transforming the money transfer business in Bangladesh. Considering Bangladesh's population density, an essential part of the IFC's development mandate is to design strategies for financial inclusion jobs and economic opportunities, Stoiljkovic said.

The country's banking sector has some 50 banks, many of which were state-owned and "not very efficient and have non-performing loans," she added. That setting provided an opportunity for an IFC client called bKash to pioneer digital money transfers using mobile channels in the country. It was able to grow rapidly to provide access to finance for some 30 million people and allow for money transfers to poor families in rural Bangladesh, according to Stoiljkovic.

"The fintech company [bKash] has now reached the size and scale that it cannot be regulated as a bank or as a micro-finance institution," Stoiljkovic said. The IFC is helping the Bangladesh government find ways of regulating the fintech space. "They obviously did not know that [digital money transfers] would grow at such a pace," she added. "[This is] a classic example of market creation and a tremendous story of financial inclusion in a country that very much needed it."

Once set in motion, projects such as bKash tend to have a snowballing effect. "[Setting up physical] branches in rural areas of Bangladesh or any other country is very difficult and expensive," Stoiljkovic pointed out. "Technology is allowing us to connect people and give them that access, simply by having a mobile phone."

Stoiljkovic placed the impact of IFC's work against the backdrop of the larger goal of using sustainable development to reduce world poverty from current levels of below 10% to less than 3% by 2030. "When I think of Asia, I think about sustainable cities, urbanization. I think about agriculture and linking what happens in rural areas providing food to growing urban populations. I think about a lot of young people that need to be included in the economy – by providing jobs for those people and [empowering them with the] skills for those jobs," she said. "And of course, I think about doing all of that in a sustainable way and hopefully using more and more technological development to speed up the growth."



How Businesses Can Drive Health Care to the Underserved

More than a billion people worldwide, including in the U.S., lack access to basic health care, but they are very much on the radar of some public spirited organizations, both big and small. One is Medtronic, a large manufacturer of medical devices that has its worldwide operational headquarters in Minneapolis, Minn. The company, through its Applied Innovation Lab, is bringing low-cost, technology driven health care solutions in treating childhood blindness, childhood diabetes and adult blood pressure to the underserved in emerging markets.

Another is ERC Eye Care in Jorhat, located in India's Assam state, which provides affordable eye care in the country's northeastern region. With a novel hub-and-spoke model of a hospital connected with rural centers and mobile vans, it has over the past six years provided eye care services to more than 1.55 million people.

"Awareness, infrastructure and training are common elements that need to be resolved in health care," said Omar Ishrak, CEO of Medtronic, about the company's holistic approach. Parveez Ubed, founder and CEO of ERC Eye Care, meantime, encountered unique challenges in bringing health care to low-income populations, such as individuals feeling a lack of dignity in receiving free eye care services. "When we think that the aspirations of the BOP (people at the bottom of the pyramid) are not the same as those of the middle-income or the upper-income segments, we are totally wrong," he said.

Ishrak and Ubed shared their experiences in building their business models with Knowledge@Wharton for a new podcast series called "From Back Street to Wall Street." The series is being produced in partnership with Impact Investment Exchange (IIX), a Singapore-based group that serves as a bridge between investors and development goals in Asia.

Ishrak said Medtronic aims to "contribute to human welfare" through medical engineering, which is the first part of its mission statement. The company, he adds, does not want to stop simply with making the devices, "hoping that people get better with it," but wants to ensure they

also "alleviate pain, restore health, and extend life" — the second part of its mission statement, he added. He explained how Medtronic takes those goals seriously. "This is not just a matter of showing up with stuff," he said. "It's a matter of training and educating people, and creating awareness in different types of investments."

"It's dangerous in health care to think that there is a magic bullet that will solve all problems." -Omar Ishrak

GRANULAR AND SPECIFIC

The challenges in meeting the health care needs of the underserved in the U.S. are typically around creating sustainable funding and local infrastructure of facilities to make them widely accessible, Ishrak noted. But the issues are different in emerging markets and cannot be solved by technology alone, he said. They need customized solutions that get "very granular and specific" about the type of problem, the disease being tackled, the population being served, and the circumstances around that population, he explained.

Medtronic's vehicle for those objectives is its Applied Innovation Lab, "a collaboration hub for employees, customers, health care providers, and other partners," set up in September 2015. Focused on the underserved, the lab plows back its profits to further scale the reach of its health care solutions. Its ecosystem is made up of

other technology companies, physicians and government agencies.

Among the projects that have had significant impact thus far is one to treat childhood hearing loss among underserved populations mostly in India, and some in Bangladesh. Another project: to treat childhood diabetes remotely. A third project is in Kenya, where it provides treatments for adult blood pressure and hypertension measurement. The lab is working on about a dozen technology-based health care programs.

"The most important issue was the lack of dignity [among low income people] in accessing services which were not paid for." -Parveez Ubed

TECHNOLOGY AND SCALABILITY

Medtronic is using technology creatively in delivering those solutions. For example, in treating childhood hearing loss, while the conventional otoscope takes a picture of the interior of the ear, the company added a mobile phone plug in order to send that picture to a doctor. Next, it is building artificial intelligence tools to provide quicker diagnosis. In hypertension measurements, it makes available low cost iPad technology to physicians that helps them manage patient treatment processes.

Ultimately, for these programs to work effectively, "scalability has to go with affordability, so you cannot scale without affordability," said Ishrak. "But affordability can happen if there's a real ecosystem that develops that can pay for it." He added that "without infrastructure, awareness and training, nothing is going to happen."

Ishrak shared his guiding philosophy: "The one thing that we can do is to move away from this being a charitable enterprise to one that's an impact enterprise, where we measure our success in terms of the amount of impact that we make, as opposed to the money that we give," he said.

REMOTE POPULATIONS

For Ubed, after he graduated in 2007 as an eye doctor from the Guwahati Medical College in Assam, he was struck by the size of the unmet health care needs of people in his state and elsewhere in the Northeast region. The region is not well connected with the rest of India, and with agriculture as the main occupation, most people live on

marginal incomes. The region is also prone to heavy floods and has inadequate public infrastructure.

When Ubed began practicing, he found that the "pain points for patients" were chiefly accessibility to care, affordability and inclusiveness, but he discovered something else as well. "The most important issue was the lack of dignity [among low income people] in accessing services which were not paid for," he said. Data that Ubed found told him that 43% of the people in his region with low vision needed at least a simple pair of glasses. That encouraged Ubed to set up ERC Eye Care in Jorhat in 2011 with a modest capital of \$6,000, and he converted his mother's kitchen into a clinic.

Ubed wanted to grow his enterprise, but found it hard to raise funding, and he realized he also lacked the requisite business expertise. "We were not businessmen [with an understanding of] how to monetize treatments in a profitable manner, and to run things in a sustainable way," he said. He read a lot of management books including those by Philip Kotler, and learned how to write a business model, draw up Excel sheets, etc.

In 2014, ERC won a \$150,000 grant from the World Bank, and set up a large eye hospital in Jorhat that provides secondary eye care such as cataract surgery and other services like refractive error correction. Subsequently, it also secured investments from Ennovent Impact Investment Holding, Ankur Capital, Beyond Capital Fund and angel investors.

A HUB-AND-SPOKE MODEL

ERC uses a "hub-and-spoke" business model, where it runs "vision centers" in rural areas and deploys mobile units to reach further into interior areas. They are the spokes that are connected to its hub, which is the main hospital.

Ubed said he is now "very confident about our business model." ERC is currently in a fund raising round aimed at prepping its internal operations to go "large scale" in two years. Future plans includes more hospitals, and expansion into new geographies across Southeast Asia.

Ubed now has advice for other aspiring social entrepreneurs. "They should look and get help from organizations like IIX, which have programs for entrepreneurs like me to introduce them to the ecosystem" he said. "[They must also] make their business models investable, because it's not always that the investor and the entrepreneur look in the same direction."



How Urban Planners Can Encourage 'Vibrancy' — and Create Safer Cities

There is plenty of debate about what makes one neighborhood safe, while others experience high incidences of crime. Recent Wharton research looks at the role that urban planners have to play, analyzing high resolution data about cities, such as population density or zoning, to help evaluate how efficient their built environment is in promoting "vibrancy," and to potentially guide future urban development.

"I'm obsessed with this idea of vibrancy," says Wharton statistics professor Shane T. Jensen, explaining that contemporary urban hypotheses suggest that positive, healthy activity or energy in a neighborhood helps discourage crime. Jensen is co-author of the paper, which uses Philadelphia as a case example. Among his research specialties is urban analytics, where he gleans insights from publicly available data regarding zoning, construction activity, Census demographics and mapping technologies.

According to Jensen, one his co-authors — architect Rachel Thurston from Stantec — found that much of urban development tends not to be based on empirical findings, but more on anecdotal assumptions. Jensen hopes that research and evaluation of those practices could lead to better urban planning, more vibrancy in neighborhoods and hopefully reduced crime. He discussed the chief insights of the research, which was also co-authored by Wharton statistics professor Dylan Small and Wharton doctoral student Colman Humphrey, on the Dollars and Change show on Wharton Business Radio on SiriusXM channel 111.

Below are key highlights from the discussion:

Could vibrancy help reduce urban crime? In any urban setting, "certain neighborhoods or street corners are very vibrant, and there is a lot of human activity at all hours of the day," says Jensen. How best to quantify such vibrancy in a particular neighborhood or street is one of the primary objectives of his research. "After quantifying it, can we evaluate whether or not it helps reduce crime? Those are the overarching goals of my research."

Jensen's hope is to be able to appraise current procedures for how neighborhoods are zoned or laid out and use the learning from that "in an intervention sense." For example, the researchers might discover that mixing commercial and residential development is critical to promoting vibrancy, and planners could then zone accordingly.

In their studies of small neighborhood units in Philadelphia, the researchers compared business vibrancy and the location of businesses with crime data to see which locations are high-crime or low-crime. They found that in particular neighborhoods, more crimes occur near businesses, like theft and burglary. But they also found that businesses that are open for longer hours, like cafes, tend to have less crime than others. "That's an intervenable thing," says Jensen, who wants to be able to bring to the development planning process more data and hypothesis testing with his research.

"The idea is to have local initiatives and small-scale [activities] that are intended to encourage people on the street, milling about at all hours of the day and [generating] a lot of pedestrian traffic."

A focus on local, organic development: According to Jensen, the old model of urban planning supported large scale renewal projects in the 1950s and 1960s where cities were built "around the automobile." As an example, he pointed to public works projects like the Benjamin Franklin Parkway in Philadelphia. "The pushback against those types of projects came from people like [urban renewal activist] Jane Jacobs in the 1960s, who said that the way to develop a city is to focus on the small-scale, develop neighborhoods organically, and focus on the mixing of commercial and residential," says Jensen. "The idea is to have local initiatives and small-scale [activities] that are intended to encourage people on the street, milling about at all hours of the day and [generating] a lot of pedestrian traffic."

"Grand, urban renewal projects like slamming an entire highway through a city center displace a ton of people and obviously change the entire fabric of neighborhoods."

Jensen pointed to the work done by Janette Sadik-Khan, former commissioner of the New York City Department of Transportation, who is best known for creating bike lanes and pedestrian plazas in the city. He said in formerly blighted neighborhoods like Times Square, the effort was to close off streets and "encourage more hanging out."

Counter-intuitive findings: Jensen's research found that Philadelphia neighborhoods with a lot of vacant land tended to have high crime rates. He says the finding was not surprising, since "we've always associated a lot of vacancy with poor health of the neighborhood." However, when the researchers looked more closely at where exactly the crimes occur, it turned out that people don't actually go to vacant lots to commit crimes. "At the aggregate level, vacancy is a sign of poor neighborhood health, but if you want to predict where crimes are occurring within unhealthy neighborhoods, they tend not to be occurring near those vacant lots." he said.

Jensen pointed to other studies at Penn including one that conducted a controlled experiment on greening some vacant lots with parks or other such "nice spaces," while leaving others vacant. That study found that the crime

rates didn't differ dramatically between those areas that were greened and those that were left vacant. However, there was a huge difference in the perceptions of crime between residents of areas where vacant lots were greened, and those in other neighborhoods that didn't see such improvements.

Jensen saw a cohesive narrative emerging when the findings of those Penn studies and those of his recent research are combined.

Making sounder development decisions: Jensen noted that there is value in providing the urban planning community with empirical findings upon which to base development decisions. "People weren't doing a lot of experimentation or testing or even evaluation quantitatively about where crime was occurring, [whether the] zoning was mixed or not mixed, and the consequences of putting in these cookie cutter-type developments versus something more organic in the neighborhood," Jensen said. "They seemed to say, 'The giant building with the Applebee's on the street corner; that's worked for us in the past. We will just keep doing that until it stops working." He added that continued "studies of cities at a high-resolution level will help to illustrate that cities really do change, evolve and function at a very local level."

The findings from such studies will also prevent huge errors, noted Jensen. "Grand, urban renewal projects like slamming an entire highway through a city center displace a ton of people and obviously change the entire fabric of neighborhoods. We should be very cautious about doing something like that, because so much of city life and vibrancy happens at a very local level."

Jensen encouraged city planners to take a simple approach: Evaluate their options based on those aspects in a neighborhood they really like and find to be vibrant, even if that vibrancy may be defined in various ways. Integrating business data into information on the number of vacant lots and those that have been greened in a particular neighborhood could lead to even more insights, he said. If vacant lots were greened in areas where some businesses already existed, that could have a better effect either on the perception of crime, or the real crime rate, he added.



How Partnerships Drive Health Care Innovation in Africa

North Star Alliance is providing much needed health care to Africa's mobile workforce, such as truck drivers and sex workers at high risk for HIV infections. To discuss the group's work, Wharton management professor Aline Gatignon spoke with Luke Disney, North Star's executive director, a position from which he recently stepped down. Gatignon has done research on creating optimal partnerships to tackle socio-economic problems using data from North Star, in conjunction with Wharton's Mack Institute for Innovation Management. The research also is part of a joint project through the Wharton-INSEAD Alliance and conducted with INSEAD Prof. Luk Van Wassenhove and doctoral candidate Julien Clement.

An edited transcript of the conversation follows.

Aline Gatignon: Can you tell us a little bit more about the work that North Star is doing?

Luke Disney: North Star Alliance was set up in 2006 by the United Nations World Food Program, with support from TNT Express, an express delivery transport company. [At the time, HIV] was having a devastating impact on supply chains in Africa, particularly sub-Saharan Africa. So, from the World Food Program's perspective, this was really about their humanitarian supply chain. They were trying to get food from ports out to hungry communities. And in particular, in 2003, 2004, they were responding to a crisis in southeastern Africa. They noticed that they couldn't find enough trucks to move the food from the ports out to the communities. And this was strange to them, because normally they're pretty well prepared for crisis situations in these vulnerable areas. They have a list of all the transport companies, they've made estimates on the capacity.

But what they hadn't calculated into their model was the impact of HIV, which was, you know, on the rampage at that point in this part of the world. ... The local companies whom they rely on were losing truck drivers at an enormous rate. And that, as a result, was affecting their ability to deliver food. At the same time, ... when they did analysis into the situation, they also discovered that the very supply chains they were setting up — and you've got to think of long

supply chains, hundreds of trucks in some cases, going into areas for periods that can be up to two years in the case of a protracted relief and recovery operation — were also a factor in spreading HIV.

"The local companies whom they rely on were losing truck drivers at an enormous rate. And that, as a result, was affecting their ability to deliver food."

So, you had these communities – isolated or relatively isolated — which all of a sudden have this huge influx of truck drivers coming in. And at that point, they got very concerned, not only because of their own supply chain risk, but of course the ethical implications of trying to do good and at the same time, inadvertently bringing harm to some of these communities.

I remember the first time that I was in Africa, in an isolated community, when I actually met somebody who had full-blown HIV. It was a truck driver named Edward. And he was lying on his back in a hut in the middle of nowhere, literally. And you were just thinking to yourself, "How in God's name did HIV get to this place?" And the fact that he was a truck driver is probably how he contracted it. And

sadly, he brought it back to his village where he infected other people. So that was WFP's part of the story.

TNT Express, at that point, was busy expanding in sub-Saharan Africa and of course, as an express delivery company, also very reliant on the transport sector as a backbone to move packages, in this case commercial goods. So together, they had already started working together on improving logistics of food delivery. And they then turned

"The clarity in your mission and your vision as to what you want to achieve are very important."

their attention to this issue. And really, coming at it from a logistics perspective, as opposed to from a traditional public health perspective, they started to say, "Right, well, what's the problem here?"

And the problem is that in sub-Saharan Africa and other places, truck drivers spend an enormous amount of time away from home in Africa. Long distance truck drivers can be away easily, for up to 22, 26 days a month, on these long trips, spending an enormous amount of time at truck stops, which are isolated, parked on the side of road where they interact with women who have been forced into sex work because of the lack of other economic opportunities — women who have no other way of making their living and feeding their families.

So you get these hot spots — what we call disease hot spots – growing around these truck stops, border crossings, ports. And this is where you get high risk groups like sex workers interacting with what we call bridge groups, truck drivers, who then take the disease — HIV in this case — back to their families. And it's not just diseases like HIV. We also see for example, in the recent Ebola crisis in West Africa, that mobile populations again, play an enormous role in spreading the disease from one place to the next. So that's how the whole thing got started. And the philosophy was, well if it's happening at these hot spots, then the traditional health infrastructure of hospitals in highly dense populations in cities and towns is not going to work. We need to get the facilities or the services out to the people in these areas to prevent the disease from being transferred in the first place.

So we started by setting up small container-based clinics. We used shipping containers because they're cheap and easy to manufacture, move around and also to control the quality. And if you're inside one, it looks like a doctor's office that you and I would see here. You know, we kit them all out. They've got air conditioning, they've got water,

lights, electricity, of course. And we started putting down these containers with nurse-run teams — with outreach workers — at the different hot spots, and then building networks of them along the transport quarter.

As drivers move from one place to the next, and sex workers who are also mobile, we could start to build the continuity of care and get into these hot spots where the actual transmission was happening. So we started that in 2006, 2007. North Star Alliance was created as an independent organization to take this forward, because obviously, TNT and WFP had other things to do with their time. And since then, North Star has grown, almost 10 years later, into an organization with 36 clinics in 10 different countries at the moment. We've served over a million people. We've actually helped establish 50 different clinics in Africa, and transferred some of those to governments, others to other local partners. And the networks continue to grow and expand.

Gatignon: I remember back last May, I was visiting one of your clinics in South Africa. And I actually met a commercial sex worker who was at the clinic. Her name was Michelle. And she was telling me about the huge difference that the clinic had made in her life. She was saying that her ambition was to become the president of the sex workers.

This really made me think that you're basically giving a voice to populations who don't have one in these areas. And so, I was wondering if you could maybe tell me a little bit more about how the work that you're doing is moving from a top-down approach towards health care to maybe a more bottoms-up approach, where you're really involving these local populations in finding solutions to these kinds of issues.

Disney: I think that's a really important lesson that we learned in the process. When we started trying to figure out how to do this, we went in with, I guess you could describe it as the typical supply side mentality of an orthodox health care system. We will put a service in place and then expect people to come us and take up the service that we have put there.

In order to improve and become more effective, and particularly to get people like the sex workers coming into our clinics, we realized very quickly that you can't just go and say, "This is what we think is the problem in your area." You need to actually address what they experience as the problems, because preventing disease is not something that you do by just putting in a one-off solution. You need to build long-term relations with your key target groups. And in order to do that, you need to be talking to them about what they think is important to them and what their health considerations are.

So very quickly, because of that bottom-up influx of data, of information we were getting from the communities — they were saying, "You know, HIV is fine, but I've got a child that needs to be inoculated. I've got a problem with emphysema," or, "I've got a problem with skin rash." And so, a more primary health care approach was definitely very quickly what they were looking for. We very quickly, I think almost in the first half year, realized that "Okay, we've got to position ourselves differently." Because you need to be working with what their concerns are.

I think you see that tendency spreading across, not only in our sector of the health care industry or the health care field — you see it other places, where we've gained a lot of knowledge about what health is. And we're in the middle of a paradigm shift, in my opinion. We're moving away from this traditional, orthodox focus on top-down supply side health care services, which says, "Okay, we've got hospitals here, doctors." The health care establishment, including the pharmaceutical industry, is ... moving towards working with the communities and people trying to figure out from their perspectives, "Okay, we know they're going to go through life as a cycle of health better at one point and less healthy at another point." That's just how we all work. We're all in constant flux when it comes to states of health.

So you start to work with these people and help them to navigate those changes in their pattern by leveraging the assets that are closer to them, as opposed to moving into something you're trying to guess from a top-down perspective, as to what's going to be the remedy at a given point in time. That's really changing how people are focusing on health.

Gatignon: One thing that's really interesting about the way that you've actually organized to address this kind of issue and create this bottom-up kind of healthcare solution, is you've got a model that is essentially the same for all of the countries you work in. But you work in a number of very different countries and these blue boxes still manage to create this local embeddedness with the communities. And so, what's the secret to actually managing that mix of a somewhat standardized system that has clear processes and routines, and ways of measuring outcomes, but at the same time, having that local embeddedness?

Disney: I think it relates back to your previous question, in turning your perspective upside down. Instead of looking at it from, "We're coming in to solve the health problem," to a realization that there are so many different factors that influence health, that you can only provide one piece of that puzzle, as a health care provider today. It's very difficult for everybody to be good at everything, of course, in terms of health care prevention. The person who's going to help you prevent getting HIV is not necessarily the person who's going to help you quit smoking.

If you take the mentality that, "I'm a piece of the puzzle. I'm part of a larger system, which impacts these individual's health," and you focus on being as good as you can at the one piece of the puzzle — in our case, running a primary healthcare clinic in an isolated area — that's the starting point. But the more important aspect after that is opening yourself up to engaging the other pieces of the puzzle, to connecting with the government, which is able to provide additional second-tier services, for example. Or, on the other end, the community organizations, such as youth groups or church groups, who are out working with the communities.

"North Star has grown ... into an organization with 36 clinics in 10 different countries at the moment. We've served over a million people."

By having a very reliable, solid anchor point for different groups to work with, you can find that you can fit into many places, because the basic ideas of health services and primary health care services are pretty standard. How you treat a disease like HIV is fairly standard. There are some variations in treatment protocols, but that's really to do with the pharmaceutical side. But how you do that basic element is pretty good. The mentality of how to work with other people is different, depending obviously, at the superficial level with what their requirements are. But the underlying mentality also is fairly uniform. And you have to open to it. And that's where it starts, that idea that we are one piece of the puzzle. We're going to connect with these other people and help them. And we're all in this together.

Gatignon: What's especially interesting is the fact that you're connecting a bunch of very different puzzle pieces. You have partners that go from USAID or global partners to help fund health care and development, all the way down to the local dance troop that's doing referrals and advocacy for your clinic. How do you actually manage to, first of all, establish such a diverse group of partnerships, and then how do you actually manage to leverage them in ways that will improve healthcare outcomes?

Disney: The funny thing is, people ask often, "How do you get a big, multinational company like Chevron or Heineken to work with a local dance group from the community?" The flippant, short answer, I suppose, is they don't have to work together. We can be there as that linking pin, because they both are reliant on high quality, affordable clinical services to be able to do what they want. In the case of a multinational, it could be keeping their local workforce healthy.

In the case of the local community organization, it's the same thing. Their constituents need to be healthy. But because we have that central linking role, they're both able to come together in a way that they, perhaps on their own, would not, dealing with each other directly. We just sort of fit a gap that's between there.

And again, how do you do it? ... It starts with that mentality of wanting to do it. But after that, giving your local teams enough agency in the field, that they are empowered. They understand the local circumstances. They know which local community groups are going to be worth working with, and which ones are perhaps not going to be as effective or more difficult. They know the local government partners. They have to work with them on a daily basis. That's not something you can manage centrally — particularly not from the Netherlands, where our head office is based, or our regional office in Nairobi (Kenya) for East Africa, or Durban for South Africa. They can't do that.

"We started by setting up small container-based clinics. ... If you're inside one, it looks like a doctor's office that you and I would see here."

When you presented your first findings to us, all of us were shocked at the vast size of the networks that we had. And I experience it when I go and visit the clinics, but to truly see, to map that all out, you realize all of a sudden that the impact you're having as an organization is much larger than you perhaps initially anticipated. A lot of the time, organizations see a tension with decentralization, in the sense of giving people agency at the local level to execute and build those partnerships but at the same time, wanting to be very tight, in terms of their control on key things like quality, for example, and maybe even your branding, in case of commercial companies as well.

The clarity in your mission and your vision as to what you want to achieve are very important. ... We train people on that. We work very intensely with our teams, particularly at the lower management levels, the people running the clinics ... not only [to ensure] that we're giving to them and saying, "This is what you should be thinking," but we've involved them in actually creating and defining those cultural keystones, our core values. So, it really is coming from them. And then what we've done, is just take that, codify it, repeat it and make people aware of it and constantly remind them. If they know that, and they share

that vision, it's much easier than to give them the agency to operate at a local level, because you can rest assured that they [know] what you want to achieve as a group.

Gatignon: One of the things they have to be really good at doing is wearing different hats and adapting to very different kinds of partners, right? They're developing these ecosystems, but that means they have to work with public, private, non-profit sector organizations and bring these pieces of the puzzle together. What are the kinds of implications of having to bring together organizations, partners from different sectors? You were talking about organizational culture. Obviously, that's going be very different in terms of the way you're going to partner and approach with a public or non-profit or private sector company.

Disney: Building on the natural culture of the company is a starting point, but it's not sufficient in itself. I think you have to go beyond. And what we try and work on in groups in our training programs is help people to understand and identify pitfalls that they can get themselves trapped into sometimes ... Particularly in certain cultural circumstances at local levels, there may be enormous moral pressure or community pressure to go in a certain direction. And to try and give them the tools and awareness to try and protect themselves from getting into those positions. And if they do get into those positions, how do you get yourself out?

For example, if you're working with local communities, and in some parts of Africa you may have to deal with the village chief headman, who has certain ideas of how his community should be run, which may be very much at odds with how the local government authorities think that you should be delivering your health care services. So how does the local clinical officer balance those two things? Because those are very competing edges. Now, he or she — and we have a lot of females running our clinics — will know what we want to achieve, but still sitting between those two fires is pretty intense and can get very uncomfortable very quickly.

So what we've tried to do is build in escalation mechanisms as well, where they feel that they're under so much pressure, we try and give them, as I said, techniques for saying, right well, don't commit yourself in this when you enter into a conversation, be conscious of the fact that you can't go beyond this line. And if you feel yourself pressured to do that, and you're in a tight situation, then we've tried to build escalation measures so they can always kick it up the management line. And then we can bring in somebody who doesn't have that local pressure. And that's really effective sometimes.

Special Report

Innovative Business Approaches to Social Impact

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