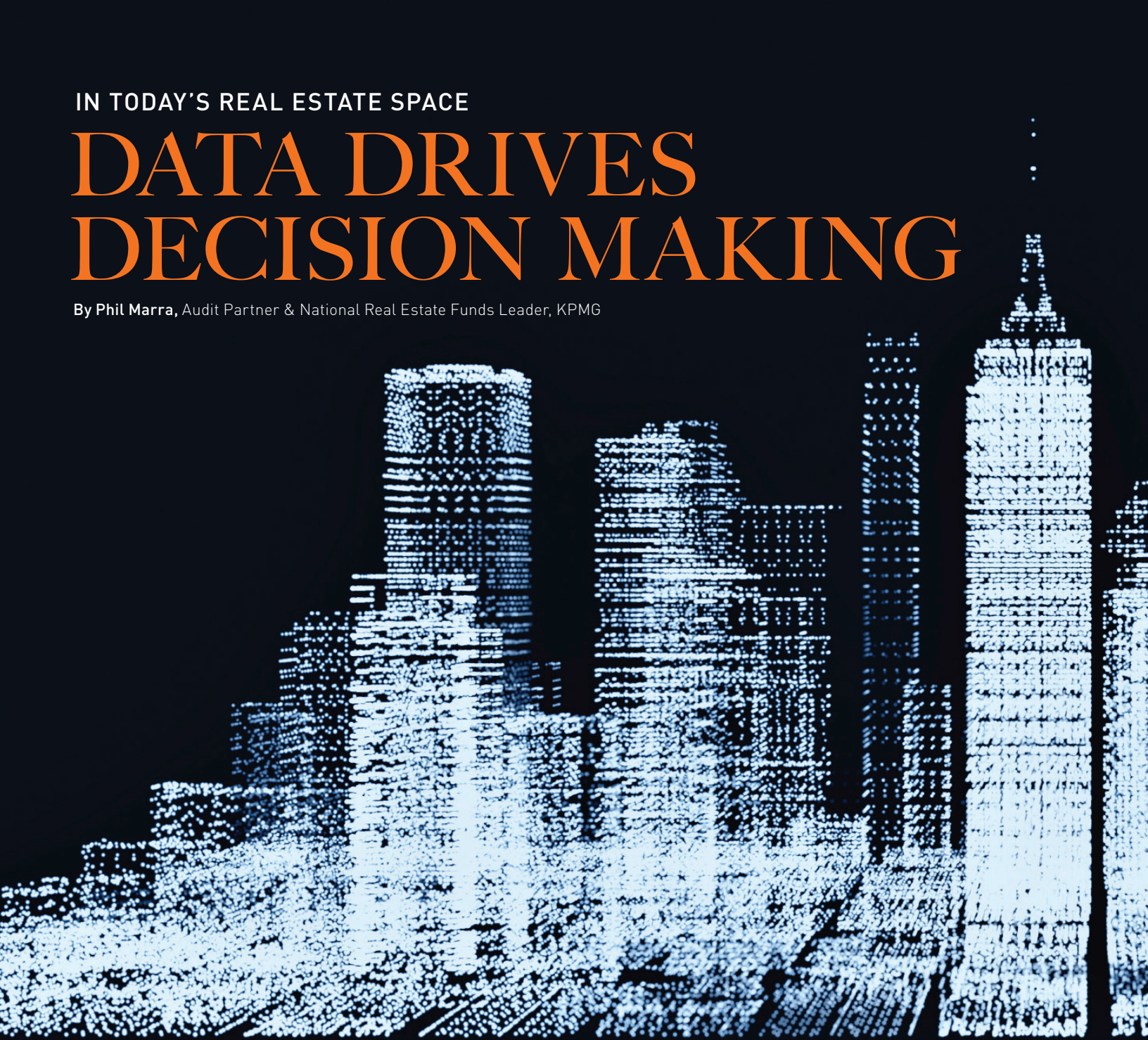


IN TODAY'S REAL ESTATE SPACE

DATA DRIVES DECISION MAKING

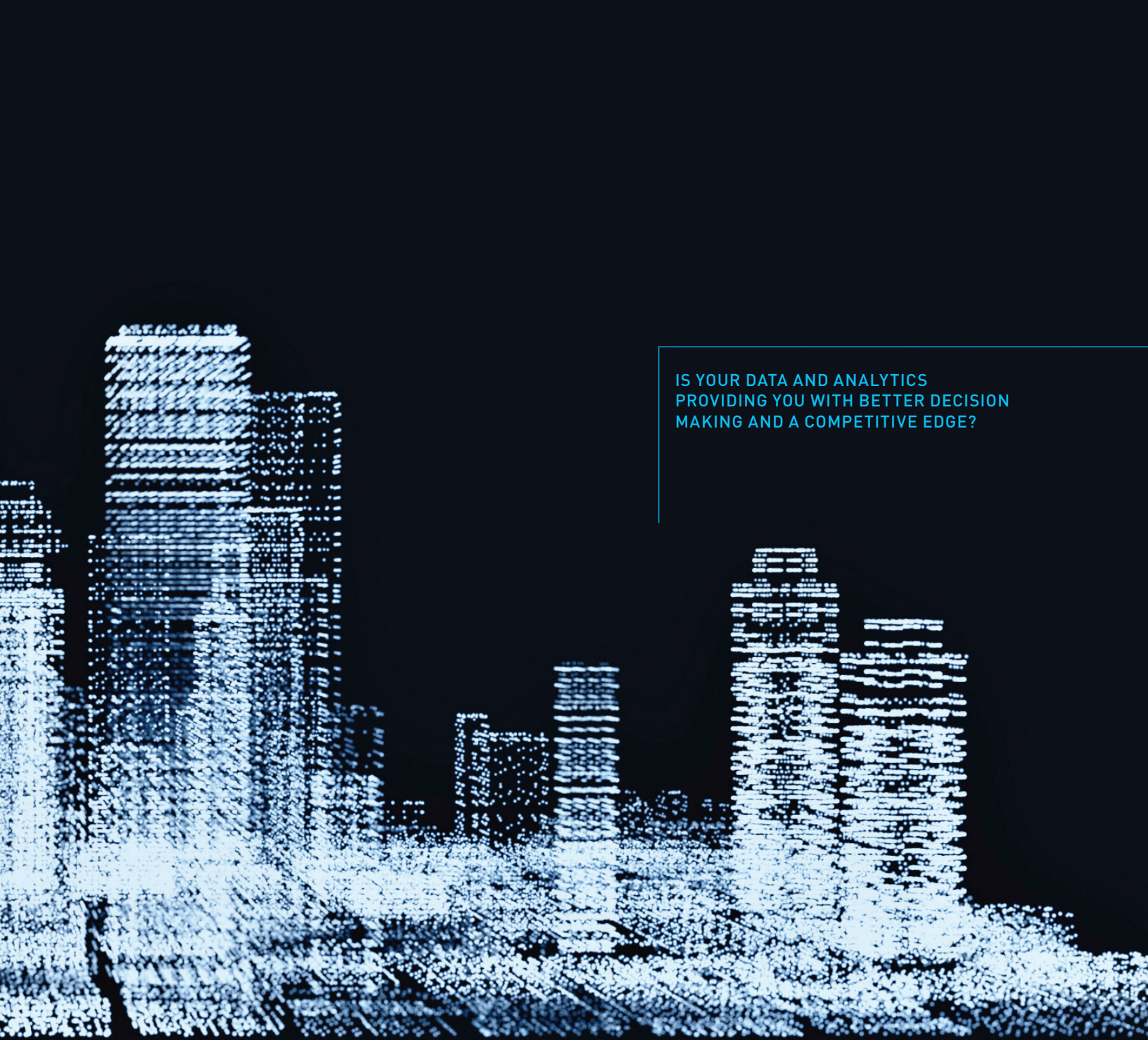
By Phil Marra, Audit Partner & National Real Estate Funds Leader, KPMG



Competition in real estate is fierce, opportunities are harder to find, expenses are rising, you have to do more with less, and you have to be much more effective and efficient in everything you do. No matter where you sit in the organization —asset management, finance, risk management—it's a challenge. All levels of the organization need to step up their game to add financial and operational value.

How do we do it? Admittedly, real estate companies haven't really been future-forward in terms of technology adoption. It's only recently that the industry coined the term "PropTech"—using data and digital technology to add value to how we build, operate, and trade real estate assets. But today, more than ever, the industry is showing signs of really embracing and focusing on PropTech, as suggested by the findings of KPMG's 3rd annual Global PropTech survey, which was published in November 2019.

One big question posed in the survey was, "Why are real estate companies investing in PropTech solutions?" There are numerous reasons companies are going digital, but according to the survey three stand out: efficiency, cost, and decision making.



IS YOUR DATA AND ANALYTICS
PROVIDING YOU WITH BETTER DECISION
MAKING AND A COMPETITIVE EDGE?

Business improvements companies have looked to PropTech to deliver on over the last two years

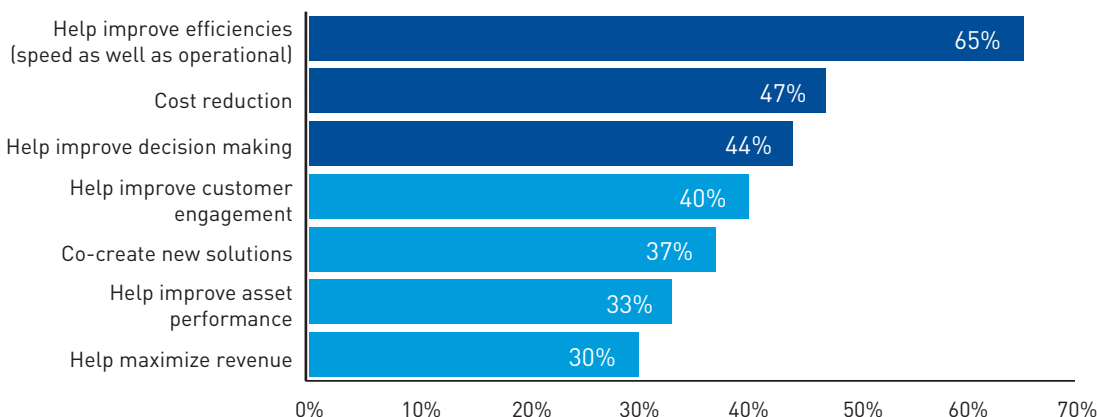
In this environment, how are companies in our space using data to gain a competitive advantage at the asset, fund, and enterprise level? Many firms spend so much time collecting and validating data. But significant time also needs to be devoted to analyzing that data, particularly in service of improving financial and investment decision making.

Ideally, you want a single source of truth—whether it's from a third party or a proprietary tool you build in-house—for everyone across the organization. It's tough to ask people to

change the way they work, but the benefits of having all of your property data integrated and accessible in one place will speed up the entire process, from letter of intent to lease signing.

The industry should look at data strategy holistically. Companies should assess the current state of their organizational data, develop a vision of where they want the business to go, and design a roadmap to get there. And work to make that process as efficient and flexible as possible. Of course, there's no perfect plan. It's got to be malleable enough to respond to an ever-evolving marketplace, but companies also need a target to shoot for in terms of enabling their financial and operating data to be conversant.

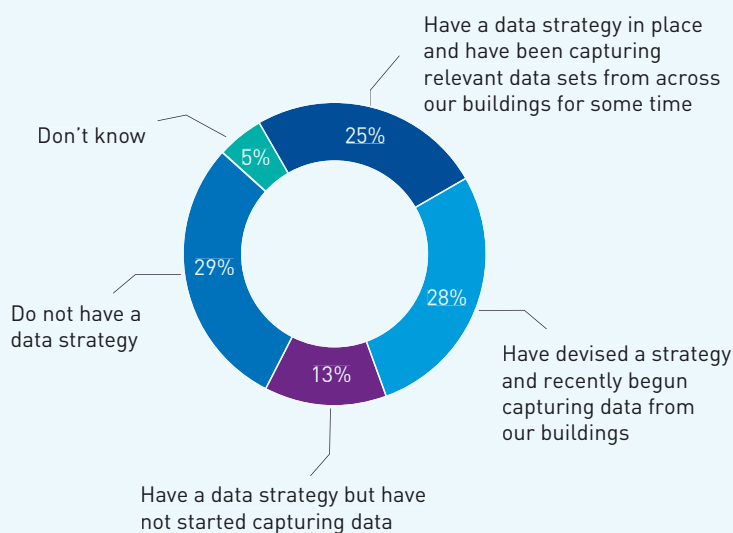
Business improvements companies have looked to PropTech to deliver on over the last two years



Source: KPMG Global PropTech Survey, 2019.

Regarding data and analytics, the survey found that companies have not made much progress in developing integrated digital strategies that incorporate data management or data strategy. Only a quarter of respondents have a data strategy that enables them to capture and analyze the right portfolio datasets. And almost a third have no data strategy at all.

Data must be at the heart of a broader digital strategy— for many companies, it's not



Source: KPMG Global PropTech Survey, 2019.

Real estate companies have enormous amounts of data, but are not doing a great job of capturing, harmonizing, and then visualizing that data and turning it into actionable information. This is fast becoming our industry's primary pain point.

As one industry luminary observed at a Real Estate Funds CFO conference KPMG hosted last year in New York City, so many companies do a fine job of hiring people who excel at Excel. There are plenty of folks who can present data. What we need is talent that can draw insights from the data. Companies need quantitative analysts, data scientists, and data visualization experts. Of course, there's always concern over the expense of building out these capabilities, but you can take incremental steps—like including these skills in the “nice to have, but not required” components of job opportunities and recruitment.

Our industry is looking to strike a balance between what we need in order to progress the business and accessing the raw data that already lives across the enterprise. When we ask, rhetorically, whether we already have most of the data points we need, the answer is likely “yes.” But when we ask whether we have the data quality we need to make the most informed investment decisions, the answer too often is “no.”

The real question becomes, “Are your data and analytics providing you with better decision making and a competitive edge?” We're all looking for that leg up on the competition, whether in terms of income, cash flow, cost control, capital spend, or a host of other measures. There's no single valid answer. It has to be right for your shop. Every player, large and small, is looking at numerous similar key performance indicators (KPIs), but perhaps weighting them differently. The key is determining what's going to add the most value for your company and identifying quick wins that will help you move the needle.

What we're learning anecdotally and through research is that while we need good, dedicated data technologists, if data strategy is left solely to IT, it will fail. It has to be owned jointly by the full business.

So who owns digital? The good news is 95% of the firms that participated in the Global PropTech Survey indicated someone on the business side is in fact responsible for digital innovation and that 62% is represented by C-level executives. The bad news, however, is 65% of those leaders don't have technology backgrounds. This lack of technical skills at a senior level is quite simply a speed bump on the road to digital progress.

This skills gap can be addressed by bringing in digital experts to work in teams toward innovating the organization and changing the culture. That individual needs to understand your business. But they also need to understand today's emerging technologies. As a global industry, we're typically hesitant to break things ourselves; to disrupt. That's why we need technology to do it for us; to do the types of things that will, hopefully, add value and accelerate growth. That means having the right people in the right places at the property and operational levels who are willing and able to drive innovation.

This will help create a culture where it's OK to move fast, to disrupt and break things—but with a clear plan. But to make this cultural shift the industry's mindset needs to change. Many property companies want to explore digital solutions, but aren't prepared to budget for them. These companies are insufficiently focused on the opportunity to improve the customer experience, and are too concerned that the potential risks of digital investment will outweigh the benefits. Instead, we believe they should view digital transformation as an opportunity to experiment more and learn from the results.

DATA OPTIMIZATION IN ACTION

MAXIMIZING ALPHA

Real estate executives are facing growing demands from stakeholders for better information about potential opportunities and the related risks. In an effort to enhance the decision-making process, KPMG gathers and analyzes a wide variety of traditional and nontraditional data, transforming them into signals that ultimately become actionable indicators about markets, geographies, and other factors.

THE CHALLENGE

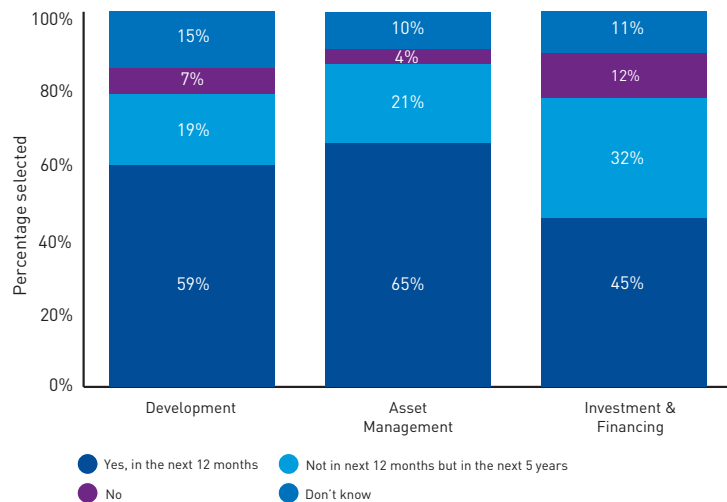
We recently engaged with a large REIT that had raised a new investment fund and was eager to accelerate its property acquisitions. Though previous funds had performed well, management was concerned about the increased competition and acknowledged the need to improve its forward-looking accuracy in terms of predicting several financial outcomes, including yields and rents. The team also communicated its desire to engineer assurance features into their property selection protocol and enhance overall investor confidence.

THE RESPONSE

After learning about and assessing the REIT's existing processes, we worked with them and employed a design-thinking approach to revamp their property selection and evaluation models with a goal of improving their prediction accuracy metrics. The suggested modifications included loosening thresholds on a number of categorical variables, dropping some correlated variables, and remodeling the remaining variables with various machine learning techniques aimed at developing an adaptive, data-driven strategy that "learns" from the inputs and identifies patterns and signals.

Likelihood of investment in IT, digital or propTech at different stages of the property lifecycle

Be an organization willing to change, which may be the hardest part of all. There will be successes and failures along the way, but hopefully we will learn from both in our journey toward increasing efficiencies, reducing costs, and enhancing decision making.



Source: KPMG Global PropTech Survey, 2019.

From there, we engineered, tested, and eventually selected an additional 5,000 variables, the majority of which came from external data sources. This ultimately resulted in a powerful nonlinear scoring mechanism. This arrangement makes extensive use of public data from more than 200 sources. Many of the signals—including those derived from commercial and residential real estate sources, crime and other first-responder sources, and transportation sources—are highly perishable, hence the need to continuously curate the solution infrastructure.

THE BENEFIT

While the REIT's underlying fund performance has historically been competitive, there were ongoing minor variances in yields and rents that the team had trouble quantifying. With this new data-powered process producing thousands of causal and explanatory signals that facilitated forward-looking, alpha-building projections, formerly unexplained inconsistencies became explainable and avoidable.

Increasingly, investors want real estate executives and fund managers to demonstrate the use of more science and less gut instinct when making investment decisions—although there are certainly instances when visceral judgment is appropriate. Our approach in this case helped illuminate what had previously been difficult-to-pinpoint variances, enabling management to confidently make decisions corroborated by science and present objectively provable justification to the marketplace.

